

SEPTEMBER 2026

Ferry Terminal Project Environmental Impact Report

Port of Redwood City

State Clearinghouse No: 2024041306

Prepared for:

Port of Redwood City

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Executive Summary

ES.1 Introduction

The Port of Redwood City proposes to provide San Francisco Bay Ferry-operated passenger ferry service from a proposed new ferry terminal at the Port of Redwood City (Port) with origin and destination points of San Francisco and Oakland. San Francisco Bay Ferry is a regional public ferry service with operations overseen by the Water Emergency Transportation Authority (WETA). The proposed project would also include multi-modal access improvements, an extension of the Bay Trail, relocation of existing infrastructure, and a zone change to allow future visitor-serving uses of a hotel, standalone restaurant uses, and small office adjacent to the ferry terminal.

The EIR was developed in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 *et seq.*) and the Guidelines for Implementation of the California Environmental Quality Act of 1970 (CEQA Guidelines) (14 California Code of Regulations [CCR] Section 15000 *et seq.*). An EIR is an objective, full-disclosure document to: (1) inform agency decision-makers and the general public of the direct and indirect environmental effects of a proposed project; (2) identify and evaluate alternatives to the proposed project that might lessen or avoid some or all of the identified significant impacts; and (3) identify, where necessary and feasible, mitigation measures to reduce or eliminate any identified significant adverse impacts. This EIR evaluates the potential short-term and long-term, direct, indirect, and cumulative environmental impacts associated with construction and operation of the proposed project, including the ferry terminal and visitor-serving uses. The Port is the entity responsible for CEQA review.

ES.2 Purpose of the Draft EIR

This Draft EIR will be used to inform decision-makers, regulatory agencies, and the public about the significant environmental impacts (i.e., direct, indirect, and cumulative) of the proposed project, in accordance with the provisions set forth in the State CEQA Guidelines. This Draft EIR is being provided to the public for review, comment, and participation in the planning process. After public review and comment, a Final EIR will be prepared that will include responses to comments on the Draft EIR received from agencies, organizations, and individuals. The EIR would provide the basis for decision-making by the Port and other agencies. Other agencies (State, regional, and local), as described in Chapter 1, Introduction, of this Draft EIR, that have jurisdiction over an element of the proposed project or a resource area affected by the proposed project are expected to use this Draft EIR as part of their approval or permitting process. This Draft EIR would support permit applications, construction contracts, and other actions required to implement the proposed project and to adopt mitigation measures that, where possible, could reduce or eliminate significant environmental impacts.

ES.3 Draft EIR Organization

The Draft EIR is comprised of the following chapters and appendices:

- *Executive Summary* – summarizes the Draft EIR and provides a summary table of the proposed project's effects on the environment, mitigation measures, and the environmental impacts after mitigation. The Executive Summary also presents areas of controversy, including issues raised by members of the public and agencies during the public scoping period and presents a summary of the alternatives evaluated in the Draft EIR. Detailed analysis of these issues is contained in the main body of the document.
- *Introduction* (Chapter 1) – describes the purpose of the EIR, a list of agencies that may utilize the EIR, the availability of the Draft EIR, and a brief outline of the organization of this document.
- *Project Description* (Chapter 2) – describes the project location, proposed project components, project objectives, and anticipated phasing of the proposed project.
- *Environmental Analysis* (Chapter 3) – discusses the setting (existing conditions and regulatory framework) for each environmental resource area, impact assessment methodology, the environmental impacts that could result from the proposed project, and the mitigation measures (if any) that would eliminate or reduce the identified significant impacts. The criteria (thresholds) used to assess the significance of environmental impacts are identified, and the significance of the impact both prior to and following mitigation is reported. Cumulative impacts for each resource are also identified, including whether those impacts are significant and, if so, whether the proposed project's incremental contribution to that impact is cumulatively considerable.
- *Alternatives Analysis* (Chapter 4) – evaluates a reasonable range of alternatives to the proposed project. It describes impacts that would result from each of the alternatives, compares the significant environmental impacts of the proposed project and alternatives, and identifies the Environmentally Superior Alternative. It also identifies alternatives initially considered but not carried forward for detailed review.
- *Other CEQA Considerations* (Chapter 5) – discusses the extent to which the proposed project would have significant environmental effects, as well as the mitigation measures proposed to minimize significant effects and identification of those significant environmental effects that cannot be avoided if the proposed project is implemented (if any). It also discusses the significant irreversible environmental changes that could result from implementation of the proposed project. In addition, this chapter discusses the extent to which the proposed project would result in growth-inducing impacts. Chapter 5 also identifies resource areas and specific issues that were determined to have no impact in the Notice of Preparation (NOP) and Initial Study (IS) and includes a brief evaluation to support that determination.
- *References* (Chapter 6) – identifies the materials and documents consulted in preparing this Draft EIR.
- *List of Preparers* (Chapter 7) – lists the individuals involved in preparing this Draft EIR.
- *Acronyms and Abbreviations* (Chapter 8) – provides the full names for acronyms and abbreviations used in this document.
- *Appendices* – presents the NOP/IS and comments received on the NOP/IS, and technical studies prepared for the environmental impact analyses in this Draft EIR.

ES.4 Project Location and Setting

ES.4.1 Port of Redwood City

The Port is located on the southwest side of San Francisco Bay, approximately 18 nautical miles from San Francisco along Redwood Creek. It is the only deep draft port in South San Francisco Bay and specializes in bulk and liquid cargoes. The primary inbound cargo received at the Port is dry bulk cargo construction materials and the primary outbound cargo is scrap metal. The Port was founded by City Charter in 1937 and is an enterprise agency of the City with its own governing commission as appointed by the City Council. Its ownership and jurisdiction encompass a 120-acre industrial and maritime complex with three deep-draft operating berths. Most of the Port's property falls within the Port Priority Use designation for maritime commerce and ancillary maritime industrial uses identified in the San Francisco Bay Conservation and Development Commission (BCDC)'s San Francisco Bay Area Seaport Plan, which is part of the San Francisco Bay Plan.[1]

ES.4.2 Project Location

The proposed project is comprised of various components in or near the Port and the Pacific Shores Center office complex in Redwood City. The term "project area" refers to the location of all project components, and the term "project site" refers specifically to the 9.2-acre parcel that would be the site of the ferry terminal and visitor-serving uses. **Figure ES-1** shows the general location of project site within the regional context.

The project site encompasses a 9.2-acre parcel that would be the site of the ferry terminal and visitor-serving uses. The project site is at the northern end of the Port, at the confluence of Westpoint Slough and Redwood Creek. The site is bounded by Redwood Creek to the west, Westpoint Slough to the north, Frontage Road and Union Pacific Railroad tracks to the east, and an aggregate and cement marine terminal operated by Cemex Construction Materials (CEMEX) to the south. The project site is owned by the Port and is under a month-to-month lease to CEMEX, which used it for the stockpiling of materials for recycling and sale of concrete base rock. CEMEX is currently in the process of vacating the project site. The project site is a graded flat site of hard packed dirt, with a shoreline that is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. The Shell Unloading Wharf, an abandoned cement wharf that was constructed in 1962 and used for unloading oyster shells dredged from the Bay to process into cement, extends parallel from the shore into Westpoint Slough at the northern edge of the project site.

Other project improvements in the larger project area would occur along the western leg of the Seaport Boulevard loop road, at the entrance to the Pacific Shores Center, the railroad tracks and Frontage Road east of the Port, a portion of the existing western public parking lot and waterfront park northwest of the Pacific Shores Center, and a small site at the Pacific Shores Center for a relocated maintenance building. The ferries would operate within existing navigation routes in San Francisco Bay to and from Redwood City and San Francisco and Oakland.

[1] San Francisco Bay Conservation and Development Commission (BCDC). Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

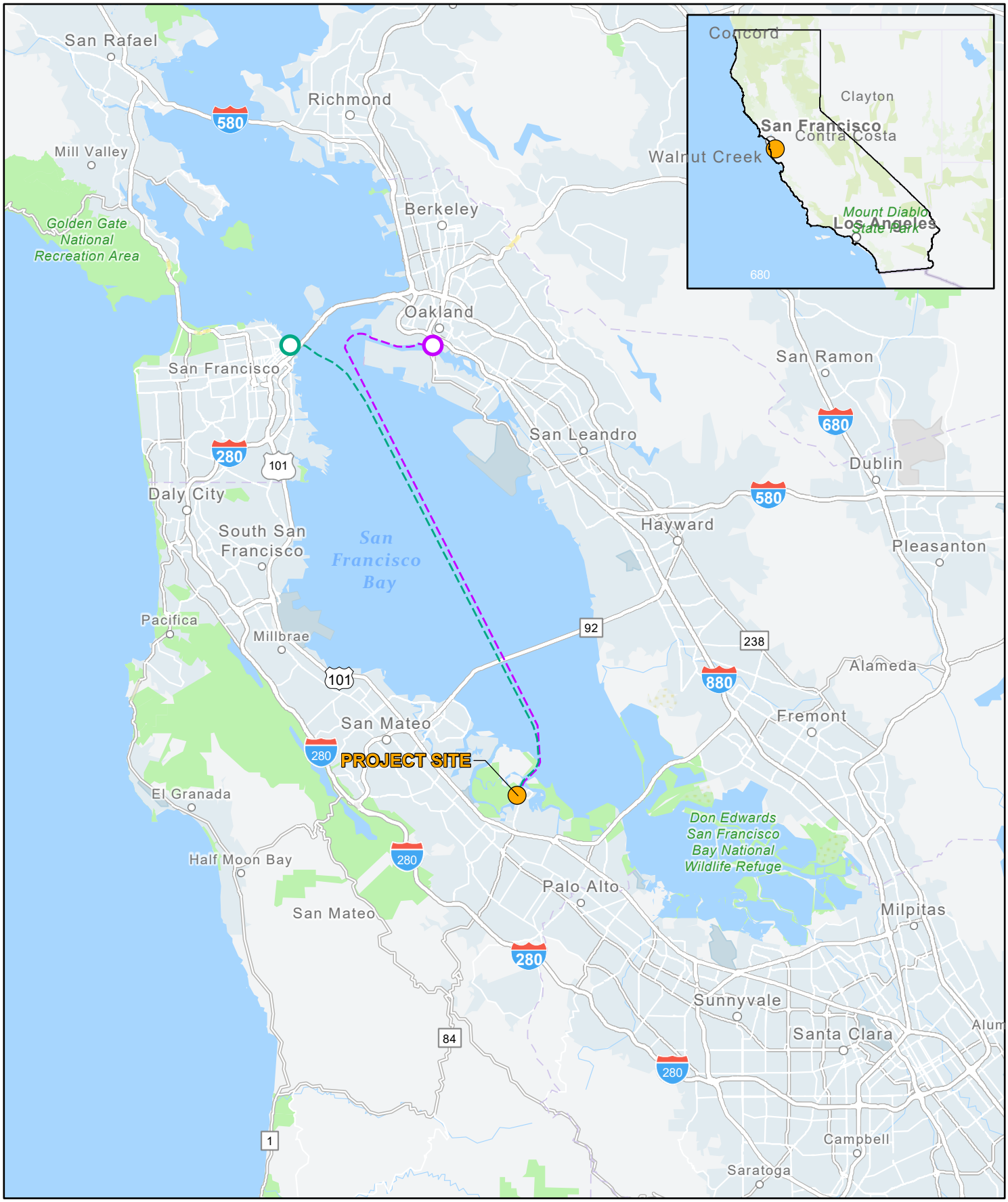


Figure ES-1

Port of Redwood City Ferry Terminal Project

REGIONAL MAP

ES.5 Proposed Project

ES.5.1 Background

Ferry services have played an important role in the development of the San Francisco Bay Area transportation network, and they offer a convenient and practical mobility alternative to congested land-based transportation and public transit services. In its 2016 Strategic Plan, WETA, which oversees the operation and expansion of the San Francisco Bay Ferry services, envisioned eleven new ferry terminals, including a new terminal in Redwood City, and eight new routes by the year 2035.[2] In May 2024, the WETA Board approved a 2050 Service Vision and Expansion Policy[3] that identifies a ferry terminal in Redwood City as one of four Tier 1 priority projects for expanding the ferry network. The Port of Redwood City has long been considered a potential ferry terminal site. A Redwood City-San Francisco route was first identified in an Implementation and Operations Plan (IOP)[4] prepared in 2002 and evaluated in a 2003 Program EIR.[5] Redwood City and WETA later conducted a site feasibility study of ferry service at a Port of Redwood City site in 2012.[6] In 2020, the Port adopted the 2020 Vision Plan,[7] a long-term strategic vision with the goal of strengthening the Port's impact to the region's economy and quality of life. The 2020 Vision Plan identifies a ferry terminal at the Port as a key component of this vision. The terminal is also identified in Plan Bay Area 2050+, the Bay Area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that was adopted in March 2026.[8]

The underlying purpose of the proposed ferry terminal project is to implement the expansion of ferry service identified in WETA's 2050 Service Vision and Expansion Policy and 2016 Strategic Plan and the Port's 2020 Vision Plan, thereby providing a new Bay Area transit option. Further, the underlying purpose of the future visitor-serving uses is to create a new Port waterfront destination by encouraging commercial and recreational uses pursuant to the 2020 Vision Plan.

ES.5.2 Overview

The proposed project would provide San Francisco Bay Ferry-operated passenger ferry service at Redwood City with origin and destination points of San Francisco and Oakland using ferry vessels capable of carrying up to 320 passengers. The ferry terminal would consist of waterside and landside components to establish the ferry service and site access improvements. The proposed project also includes an amendment to the San Francisco Vessel Mutual Assistance Plan[9] (SF-VMAP) to incorporate the Redwood

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[2] Water Emergency Transportation Authority (WETA). 2016. 2016 Strategic Plan. Available: https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2019/03/WETAStrategicPlanFinal.pdf.

[3] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

[4] WETA. 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[5] WETA. June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[6] WETA. July 2012. Redwood City Ferry Terminal - Site Feasibility Report (Draft). Prepared by KPFF Consulting Engineers. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[7] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[8] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[9] U.S. Coast Guard, Sector San Francisco Bay. May 30, 2021. San Francisco Vessel Mutual Assistance Plan (SF-VMAP).

City ferry service and vessels and a zone change and an amendment to the BCDC's San Francisco Bay Area Seaport Plan[10] to allow visitor-serving amenities at the project site. The project components are summarized below.

ES.5.2.1 Ferry Terminal Components

The ferry terminal would have waterside components consisting of berths for two ferry vessels at a pile-supported floating dock with ramps and a gangway to a pile-supported access pier with a landside security gate, electric utilities for boarding ramps, shore power, and lighting. Landside features would include a parking lot with transit stops, roadway improvements, bicycle and pedestrian connections, secure bicycle parking, and on-site utilities, along with an interim portable restroom. The proposed project would amend the SF-VMAP mutual aid plan to add the Redwood City ferry service, ensuring coordinated emergency response and evacuation procedures for ferries in distress.

ES.5.2.1.1 Waterside Facilities

The waterside facilities would include a steel floating platform on Redwood Creek with berths for two ferries, allowing boarding from either side. The float would be approximately 45 feet by 135 feet and secured by six large steel guide piles. It would meet updated WETA standards and include space for potential future electric-vessel charging equipment and battery storage.

The float would support two high boarding ramps and one low ramp that meet Americans with Disabilities Act (ADA) requirements. Passenger access from land would be from an ADA-compliant aluminum gangway up to 120 feet in length and 10 feet in width that would lead to an access pier. The access pier would be fixed to the land and supported by steel or concrete piles. It would include a security gate and canopy for protection from the elements.

ES.5.2.1.2 Landslide Facilities

The landside components would include a 250-space parking lot with a one-way loop road around the parking lot for vehicle circulation. The parking lot would meet City and State requirements for electrical vehicle (EV) charging, landscaping, drainage, ADA-accessible spaces and routes, and secure bicycle/micromobility parking. It would include a shuttle stop and drop-off and pick-up zone. An interim portable restroom would be provided for ferry passengers near the boarding area. A landscaped buffer with security fencing would separate the site from adjacent Port industrial areas.

The project site would be accessed from the Seaport Boulevard loop road via a new two-way access road into the project site. The existing western public parking lot would be reconfigured to accommodate the new access road, including removal of approximately five parking spaces and the relocation of a small maintenance building within the Pacific Shores Center.

The western leg of Seaport Boulevard from the entrance to the Pacific Shores Center to the Ferry Terminal access road would be widened to accommodate an off-street paved bicycle trail that would be separated from vehicle traffic (Class I bicycle trail) and an ADA-compliant sidewalk. The Pacific Shores Center entrance would be shifted slightly to fit the new bicycle and pedestrian facilities. To address the projected

[10] San Francisco Bay Conservation and Development Commission (BCDC). November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

future traffic delays at the entrance to the Pacific Shores Center, the Port would install a future traffic signal at this intersection to improve traffic flow.

There is an existing segment of the Bay Trail and on the water's edge in the waterfront park west of the project site. An unpaved portion of the existing trail would be paved and extended approximately 70 feet to the project site boundary; the trail would then be extended along the water's edge to the ferry terminal.

Frontage Road currently ends at the project site, but access is controlled by an access gate approximately 1,300 feet south of the project site. This gated section of Frontage Road is not currently used and would be vacated. About 300 feet of existing railroad track east of the project site would also be removed and replaced with a similar length of new track built within the vacated portion of Frontage Road. The relocated track would reconnect to the existing rail line via a new switch located roughly 1,300 feet south of the project site.

Utilities

The proposed project would replace the site's limited existing utilities with new electrical, communication, water, and stormwater systems to support both landside and waterside operations. Electricity would power boarding ramp lifts, lighting on the pier, gangway, float, waiting areas, and parking lot, as well as shore power for berthed vessels. Water service would supply hose bibs and a fire protection system meeting Redwood City Fire Department standards. Communication utilities would support security systems, public announcements, and Clipper card readers. New stormwater infrastructure would collect and treat runoff in compliance with State and local requirements. The interim portable restroom would use new water and electrical connections but would not connect to the sewer system and would be replaced by a permanent restroom once a municipal sewer connection is established.

Sea Level Rise Adaptation

The proposed project would raise the 9.2-acre site from approximately 10 feet North American Vertical Datum (NAVD)[11] to 17 feet NAVD consistent with recommendations for the project area identified in the City's sea level rise vulnerability assessment.[12] The project site and access road would be graded to smoothly transition to surrounding areas, with drought-tolerant landscaping on slopes and low plantings along the waterfront to preserve views.

ES.5.2.2 Future Visitor-Serving Uses

Consistent with the Port's 2020 Vision Plan, the Port proposes rezoning the 9.2-acre site from General Industrial to General Commercial to allow long-term visitor-serving uses, including a three-story hotel (maximum 180,000 square feet of building area), restaurant uses (up to 20,000 square feet), and office space (up to 10,000 square feet). This also requires an amendment to remove the site from the Seaport Plan's Port Priority Use Area, which currently limits such uses. Future development would be located in the northern side of the project site, along Westpoint Slough. New or expanded utilities would be required to serve the visitor-serving uses, including expanded water, electricity, and telecommunications lines, new natural gas and sewer lines, and a modified stormwater system would be installed. Access would come from the existing loop road. Additional parking on-site would be provided in accordance with City

[11] NAVD is established for vertical control surveying in the U.S.

[12] City of Redwood City. March 2024. Sea Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/departments/public-works/water/sea-level-rise.

requirements. The precise number of spaces and location would be determined at the time specific development is proposed. It is assumed to include parking on the ground floor of the hotel and shared parking.

ES.5.2.3 Project Construction

Project construction would span about four years and is estimated to start in 2027. Work would begin by raising the 9.2-acre site to 17 feet NAVD, which would take seven to nine months to complete. This would be followed by construction of the ferry terminal and parking lot, Bay Trail extension, Seaport Boulevard widening, site access improvements, railroad track relocation, and maintenance building replacement over approximately 15 months. Construction of future visitor-serving uses is assumed to start immediately after ferry terminal completion and last about 24 months. Total construction time is estimated at 48 months or 4 years.

ES.5.2.4 Project Operations

The proposed ferry service includes two round-trip routes: one between Redwood City and Oakland's Jack London Square with a one-way travel time of about 71 minutes, and one between Redwood City and the San Francisco Ferry Terminal with a one-way time of about 61 minutes. Initial service would provide 3 to 4 weekday peak-period trips in each direction, with possible midday, weekend, and special-event service added as demand grows; the analysis assumes an up to 20 percent increase in services for weekdays and weekends.

Both routes would operate within established Bay navigation channels and use two 320-passenger vessels with Tier-4, renewable-diesel engines per route. Ferries would travel 35 knots on the Bay and slow to 7 knots within Redwood Creek Channel to protect non-motorized water users, as well as marine and land species and their habitat. Maintenance dredging at the terminal would take place every 2 to 10 years as needed, independent of maintenance dredging of the Redwood Creek channel by the U.S. Army Corps of Engineers. Vessel maintenance would take place at the WETA Central Bay Operations and Maintenance Facility in Alameda.

WETA is in the process of a phased transition of its ferry fleet from diesel operated ferries to zero-emission vessels (ZEVs). However, the transition of longer, more energy intensive routes to zero-emissions, such as the proposed routes, is currently infeasible.[13] Consistent with WETA's 2050 Service Vision and Expansion Policy,[14] this proposed system expansion would use existing vessels which would be replaced with ZEVs once they reach the end of their useful life. Vessels serving Redwood City have a 25-year lifespan, so a transition to ZEVs is expected within that timeframe. Because no feasible ZEV technology exists yet for this route, this EIR conservatively assumes continued use of Tier 4, renewable-diesel vessels for purposes of this environmental analysis.

The operation of visitor-serving uses would result in up to approximately 400 new employment opportunities associated with the hotel and related facilities, restaurant, and the limited office uses. The

[13] WETA. January 2023. Blueprint for Zero Emission Vessel Transition. Available: https://sanfranciscobayferry.com/wetas-transition-to-zero-emission-ferries/.

[14] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

hotel facility would be open 24 hours per day, 365 days per year. The restaurant and the limited office space uses would have more limited hours than the hotel.

ES.6 Alternatives to the Proposed Project

Three alternatives to the proposed project were carried forward and evaluated in the EIR.

ES.6.1 Alternative 1: No Project Alternative

Under Alternative 1, the project site would be a vacant unused site that is not leased by the Port for other uses. The site would have hard-packed soil and an elevation of approximately 10 feet from 10-feet NAVD that is not accessible to the public. None of the improvements and none of the proposed project's components would be implemented. No new ferry terminal or visitor-serving uses would be constructed and there would be no ferry service from Redwood City to San Francisco and to Oakland established and no zone change or plan amendments. There would be no access improvements, demolition of the existing maintenance building or the Shell Unloading Wharf; relocation, installation, or removal or utilities; roadway widening of Seaport Boulevard; relocation of the railroad tracks; or vacation of Frontage Road. Additionally, no extension of the Bay Trail within the project site would be constructed, and a Class I bicycle trail and ADA-compliant sidewalk would not be installed along the Seaport Boulevard loop. There would be no modifications to the Pacific Shores Center entrance. There would be no amendment to the SF-VMAP to incorporate the Redwood City ferry service and vessels. There would be no zone change or amendment to BCDC's San Francisco Bay Area Seaport Plan.

ES.6.2 Alternative 2: No Project Alternative – Reasonably Foreseeable Uses

Under Alternative 2, the project site would continue to be leased by the Port and would be occupied by Port-related industrial uses. None of the improvements or the proposed project components would be implemented. No new ferry terminal or visitor-serving uses would be constructed and no ferry service from Redwood City to San Francisco and to Oakland established and no zone change or plan amendments. The Port would continue to lease the project site for marine industrial uses, which are assumed to be the continuation of the site being used for sales and stockpiling of concrete and other materials. Landside improvements located on-site, including a storage building, equipment and machinery, and stockpiles would remain. Under these conditions, the project site would remain closed to the public and access would continue to be from the CEMEX marine terminal or Frontage Road to the south. The project site would not be raised and would continue to have hard-packed soil and sparse vegetation at an elevation of approximately 10-feet NAVD.

ES.6.3 Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development

Alternative 3 would establish the new ferry service between Redwood City and San Francisco and Redwood City and Oakland as described for the proposed project. The ferry terminal and access improvements would also be implemented as described for the proposed project with several differences. Under Alternative 3, the elevation of the project site would not be raised to 17-feet NAVD, which would shorten the construction period and reduce the number haul trips.

Generally, the same ferry terminal landside and waterside facilities as for the proposed project would be required under Alternative 3. However, the access pier would be constructed on a raised elevation that is a minimum 4 feet, and the parking lot would be raised approximately 3 feet with a downwards slope to direct water runoff into drainage features and stormwater infrastructure to accommodate future sea level rise. Additional strategies to accommodate possible water intrusion associated with sea level rise, such as implementation of swales and infiltration ponds and installation of backflow devices in drainage pipes, would be incorporated into Alternative 3.

Alternative 3 would include a zone change and an amendment to the BCDC's San Francisco Bay Area Seaport Plan to accommodate the visitor-serving uses and associated improvements as with the proposed project. The proposed uses of hotel, restaurant, and office uses would not change but the maximum square footages would be reduced by approximately 43 percent to a maximum total development of 119,000 square feet. This includes a maximum 105,000 square-foot hotel with 95 rooms, up to 6,000 square feet of restaurant uses, and up to 8,000 square feet of office space. Methods to address future sea level rise would include absorbent landscaping, such as rain gardens, and use of permeable materials, such as gravel, swales, and infiltration basins near the buildings. The buildings would be constructed on piles that would raise the occupiable building area by a minimum of 4 feet (or minimum of 8 feet for ground-level parking). Use of water-resistant materials and coatings and pumps to remove water would also be incorporated.

ES.7 Terminology Used in the Environmental Analysis

ES.7.1 Physical Conditions Baseline

For each resource area in this EIR, the baseline physical conditions used to determine whether an impact is significant are identified in the Environmental Setting. Section 15125(a)(1) of the CEQA Guidelines states that "[g]enerally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published…" Section 15125(a)(1) further identifies that "[w]here existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record."

The NOP for the proposed project Draft EIR was published on May 1, 2024. However, at the time the NOP was published, the 9.2-acre project site was under a lease agreement between the Port and Harbor Sand & Gravel (currently Cemex Construction Materials [CEMEX]), and it was occupied with materials related to concrete stockpiling and had an open vegetated drainage ditch. The lease requires the leaseholder to remove all landside improvements, including a storage building, equipment and machinery, and stockpiles, and grade the site to a height of approximately 10-feet NAVD prior to vacating the property. The leaseholder is also required to install a conveyance pipe and fill the stormwater ditch on the eastern edge of the site. Given that the site is required to be cleared under the lease agreement, as

evaluated under a previous CEQA evaluation, the proposed project would be implemented on a cleared and graded site.

Therefore, in most cases, existing conditions and data specific to 2024 do not provide the most accurate picture of the proposed project's impacts and rather, pursuant to Section 15125(a)(1) of the CEQA Guidelines, existing conditions are better referenced by conditions expected when the project becomes operational. Thus, baseline at the time of project operations is generally used to evaluate impacts of the proposed project, with the exception of transportation-related impacts. Additional details are provided in the individual resource chapters.

ES.7.2 Impacts and Mitigation

For each potential impact of the proposed project, this Draft EIR applies significance criteria specific to the resource area in question. These criteria establish a significance threshold which, if exceeded, triggers the need for mitigation of the impact under review. The following terms are used to describe each impact and, where significant impacts are determined, how mitigation measures are to be applied:

- No Impact – Designation of no impact is given when the proposed project does not apply to the impact category, or would not create an impact. In addition, no impact is identified if no changes in the environment are expected.
- Less Than Significant Impact – A less than significant impact is identified when the proposed project would cause no substantial adverse change in the environment (i.e., the impact would not reach the threshold of significance).
- Significant Impact – A significant impact would create a substantial adverse change in any of the physical conditions within the area affected by the proposed project. Such an impact would exceed the applicable significance threshold established by CEQA prior to application of mitigation.
- Less Than Significant Impact with Implementation of Mitigation – A significant impact would occur; however, the application of mitigation would avoid or lessen the impact, reducing it to a less than significant level.
- Significant Unavoidable Impact – Per Section 15126.2(c) of the CEQA Guidelines, a significant unavoidable impact is a project-related substantial adverse effect that cannot be reduced to a less than significant level through any feasible mitigation measure(s).
- Mitigation – Mitigation refers to enforceable, legally binding measures that would be implemented to avoid or lessen significant impacts. Mitigation includes:
  - Avoiding the impact completely by not taking a certain action or parts of an action;
  - Minimizing the impact by limiting the degree or magnitude of the action and its implementation;
  - Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
  - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or
  - Compensating for the impact by replacing or providing substitute resources or environments.

The mitigation measures would be proposed as a condition of project approval and would be monitored to ensure compliance and implementation through a Mitigation Monitoring and Reporting Program (MMRP) to be adopted by the Port, as the entity responsible for CEQA review.

ES.8 Scope of the Analysis and Environmental Impact

This Draft EIR has been prepared in conformance with CEQA (PRC Sections 21000 *et seq*.) and the CEQA Guidelines (14 CCR Sections 15000 *et seq.*). It includes all of the sections required by CEQA.

Under CEQA, a "threshold of significance" can be defined as an "identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant" (CEQA Guidelines, Section 15064.7[a]). The criteria for determining the significance of environmental impacts in this Draft EIR are described in the section titled "Thresholds of Significance" under each resource topic in Chapter 3. The threshold of significance for a given environmental effect is the level at which the Port finds an impact of the proposed project or alternative to be significant.

The NOP/IS indicated that there are no agricultural or forestry resources, mineral resources, or lands within or near State responsibility areas or lands classified as very high fire hazard severity zones in the area. Additionally, the proposed project would have no impact on population and housing as it would not induce substantial unplanned population growth in the area, either directly or indirectly, or displace existing people or housing. Specific environmental issues for which the proposed project was found to have no impact are related to: aesthetics (scenic resources along a State scenic highway); geology and soils (landslide hazards, soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems); hazards and hazardous materials (hazards within 0.25 mile of schools, exposure to wildland fires); land use and planning (physical division of an established community); and public services (physical impacts to schools and other public facilities). As a result, there would be no impacts to these resource issue areas and, therefore, they are not evaluated further in this Draft EIR in accordance with CEQA Guidelines Sections 15063(c)(3)(A) and 15128. Additional details on these analyses are provided in Chapter 5 and in the NOP/IS, included as Appendix A of this Draft EIR.

The following resource areas are evaluated in this Draft EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise and Vibration
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

ES.9 Summary of Environmental Impacts

ES.9.1 Environmental Impacts of the Proposed Project

Chapter 3, Environmental Analysis, of this Draft EIR analyzed the environmental impacts of the proposed project for 15 environmental resource areas. The potential for environmental impacts of the proposed project on the environment were analyzed for each of the resource areas, including impacts associated with both construction and operation, as well as cumulative impacts. **Table ES-1** summarizes the environmental impacts from implementation of the proposed project, as identified in Chapter 3 of this Draft EIR.

Table ES-1 Summary of Impacts and Mitigation Associated with the Proposed Project

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
3.1 Aesthetics			
Impact 3.1-1: The proposed project would not have a substantial adverse effect on a scenic vista. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.1-2: The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.1-3: The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to aesthetics would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.2 Air Quality			
Impact 3.2-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.2-2: The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard during construction but would result in an operational cumulatively considerable net increase in NO_X, an ozone precursor, for which the SFBAAB is designated non-attainment for applicable federal and State ambient air quality standards. This would be a ***less than significant impact*** for construction and a ***significant and unavoidable impact*** for operations.	Construction: Less than Significant Operations: Significant	Construction: No mitigation is required Operations: No mitigation is feasible	Construction: Less than Significant Operations: Significant and Unavoidable
Impact 3.2-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations. This would be a ***less than significant impact with mitigation*** for construction and ***less than significant impact*** for operations.	Construction: Significant Operations: Less than Significant	Construction: MM AQ-1 Operations: No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.2-4: The proposed project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative impacts: Operation of the proposed project would contribute to the non-attainment ozone designations of the SFBAAB, which would be a significant cumulative impact.	Significant Cumulative Impact, Cumulatively Considerable	No mitigation is feasible	Significant and Unavoidable
3.3 Biological Resources			
Impact 3.3-1: The proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. This would be a ***significant impact*** for construction and operations.	Construction: Significant Operations: Significant	Construction: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4 Operations: MM BIO-4, MM BIO-5	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.3-2: The proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service and State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. This would be a ***significant impact*** for construction and operations.	Construction: Significant Operations: Significant	Construction: MM BIO-2, MM BIO-3, MM BIO-4 Operations: MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-6	Construction: Less than Significant Operations: Less than Significant
Impact 3.3-3: The proposed project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. This would be a ***significant impact*** for construction and operations.	Construction: Significant Operations: Significant	Construction: MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-8, MM BIO-9, MM BIO-10 Operations: MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-11	Construction: Less than Significant Operations: Less than Significant
Impact 3.3-4: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Impact 3.3-5: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Cumulative Impacts: A significant cumulative impact to biological resources would occur related to in-water construction work (i.e., dredging, installation of the pier float and piles), operational dredging, increased lighting, construction during the avian nesting season, and installation of glass windows and façades.	Significant Cumulative Impact, Not Cumulatively Considerable	MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-5, MM BIO-6, MM BIO-7, MM BIO-8, MM BIO-9, MM BIO-10, and MM BIO-11	Less than Significant, Not Cumulatively Considerable

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
3.4 Cultural Resources and Tribal Cultural Resources			
Impact 3.4-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Impact 3.4-2: The proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Impact 3.4-3: The proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Impact 3.4-4: The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Cumulative Impacts: The proposed project's contribution to an individual effect relative to cultural resources and tribal cultural resources would not be cumulatively considerable.	No Impact, Not Cumulatively Considerable	No cumulative mitigation is required	No Impact, Not Cumulatively Considerable
3.5 Energy			
Impact 3.5-1: The proposed project would not result in significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.5-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This would be a ***less than significant*** impact for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to energy would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.6 Geology, Soils, and Paleontological Resources			
Impact 3.6-1: The proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42. *Strong seismic ground shaking. *Seismic-related ground failure, including liquefaction. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.6-2: The proposed project would not result in substantial soil erosion or the loss of topsoil. This would be **a *less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.6-3: The proposed project would not be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.6-4: The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations Less than Significant
Impact 3.6-5: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature. This would be a ***significant and unavoidable impact*** for construction and ***no impact*** for operations.	Construction: Significant Operations: No Impact	Construction: MM GEO-1 Operations: No mitigation is required	Construction: Significant and Unavoidable Operations: No Impact
Cumulative Impacts: A significant cumulative geology and soils impact would occur related to the destruction of a unique paleontological resource or site or unique geological feature.	Significant Cumulative Impact, Cumulatively Considerable	MM GEO-1	Significant and Unavoidable
3.7 Greenhouse Gas Emissions			
Impact 3.7-1: The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This would be a ***less than significant impact***.	Construction and operations combined: Less than Significant	No mitigation is required	Construction and operations combined: Less than Significant
Impact 3.7-2: The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This would be a ***less than significant impact***.	Construction and operations combined: Less than Significant	No mitigation is required	Construction and operations combined: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to GHG emissions would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
3.8 Hazards and Hazardous Materials			
Impact 3.8-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.8-2: The proposed project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This would be a ***significant impact*** for construction and operations.	Construction: Significant Operations: Significant	Construction: MM HAZ-1 Operations: MM HAZ-1	Construction: Less than Significant Operations: Less than Significant
Impact 3.8-3: The proposed project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but would not, as a result, create a significant hazard to the public or the environment. This would be a ***less than significant impact*** for construction and ***no impact*** for operations.	Construction: Less than Significant Operations: No Impact	No mitigation is required	Construction: Less than Significant Operations: No Impact
Impact 3.8-4: The proposed project would be located within an airport land use plan, but would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Cumulative Impacts: A significant cumulative hazards and hazardous materials impact would occur related to the presence of diesel contamination on-site and potential exposure if piles that replace excavated soil and generate spoils are used during construction of the visitor-serving uses and due to the potential for soil gas intrusion to occur within the visitor-serving uses enclosed structures.	Significant Cumulative Impact, Not Cumulatively Considerable	MM HAZ-1	Less than Significant, Not Cumulatively Considerable

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
3.9 Hydrology and Water Quality			
Impact 3.9-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction and operations. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.9-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project would impede sustainable groundwater management of the basin. There would be ***no impact*** for construction and operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Impact 3.9-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course or a stream or river or through the addition of impervious surfaces and: **i)** would not result in substantial erosion or siltation on- or off-site; **ii)** would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; **iii)** would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and **iv)** would not impede or redirect flood flows. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.9-4: The proposed project would be developed in flood hazard and tsunami zones; however, the site elevation would be raised to reduce the risk of release of pollutants due to inundation including in the future due to sea level rise. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.9-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There would be ***no impact*** for construction or operations.	Construction: No Impact Operations: No Impact	No mitigation is required	Construction: No Impact Operations: No Impact
Cumulative Impacts: The proposed project's contribution to an individual effect relative to hydrology and water quality would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.10 Land Use			
Impact 3.10-1: The proposed project would not cause a significant environmental impact **not analyzed elsewhere in this EIR** due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There would be ***no impact*** for construction and operations.	No Impact	No mitigation is required	No Impact
Cumulative Impacts: The proposed project's contribution to an individual effect relative to land use would not be cumulatively considerable.	No Impact, Not Cumulatively Considerable	No cumulative mitigation is required	No Impact, Not Cumulatively Considerable
3.11 Noise and Vibration			
Impact 3.11-1: The proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.11-2: The proposed project would not generate excessive ground-borne vibration that would exceed damage criteria. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.11-3: The proposed project would not expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: A significant cumulative traffic noise impact would occur along Seaport Boulevard between Seaport Court and Chesapeake Drive under Cumulative Plus Ferry Terminal and Cumulative Plus Full Project conditions.	Significant Cumulative Impact, Cumulatively Considerable	MM NOI-1	Less than Significant, Not Cumulatively Considerable
3.12 Public Services			
Impact 3.12-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.12-2: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities or need for new or physically altered police protection facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Cumulative Impacts: The proposed project's contribution to an individual effect relative to public services would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.13 Recreation			
Impact 3.13-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.13-2: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to recreation would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.14 Transportation			
Impact 3.14-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would be ***no impact*** for construction and operations.	No Impact	No mitigation is required	No Impact
Impact 3.14-2: The proposed project would not conflict or be inconsistent with the criteria for evaluating impacts identified in Redwood City's 2020 Transportation Analysis Manual (TAM) as the ferry terminal use would not result in an increase in per capita VMT and the visitor-serving uses would not exceed countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM. This would be a ***less than significant impact***.	Less than Significant	No mitigation is required	Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.14-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.14-4: Construction and operation of the proposed project would not result in inadequate emergency access or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to transportation would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable
3.15 Utilities and Service Systems			
Impact 3.15-1: The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.15-2: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant

Environmental Impacts	Impact Determination	Mitigation Measures	Impact after Mitigation
Impact 3.15-3: The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Impact 3.15-4: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The prosed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. This would be a ***less than significant impact*** for construction and operations.	Construction: Less than Significant Operations: Less than Significant	No mitigation is required	Construction: Less than Significant Operations: Less than Significant
Cumulative Impacts: The proposed project's contribution to an individual effect relative to utilities and service systems would not be cumulatively considerable.	Less than Significant, Not Cumulatively Considerable	No cumulative mitigation is required	Less than Significant, Not Cumulatively Considerable

ES.9.2 Significant Unavoidable Impacts

Based on the detailed analysis provided in Sections 3.1 through 3.15, the proposed project would result in the following significant and unavoidable impacts during construction and/or operation.

ES.9.2.1 Air Quality

ES.9.2.1.1 Operation

Operation of the visitor-serving uses, concurrent with operation of the ferry terminal, would result in a cumulatively considerable net increase of nitrogen oxides (NO_X), an ozone precursor. Because the San Franscico Bay Area Air Basin (SFBAAB) is designated non-attainment under applicable federal or State ambient air quality standards for ozone, this impact would be significant. The NO_X emissions exceedance during full operation in 2028 would principally be the result of the operation of the diesel ferries, which would be equipped with engines meeting U.S. Environmental Protection Agency (USEPA) Tier 4 emission standards for NO_X and particulate matter, and the added vehicle miles traveled (VMT) generation from visitors traveling to and from the visitor-serving uses. As discussed in Section 3.2.5.2.4, there is no feasible mitigation available to reduce mobile source emissions. Therefore, operation of the proposed project would have a ***significant and unavoidable*** impact on air quality.

ES.9.2.1.2 Cumulative Impacts

Operation of the ferry terminal and visitor-serving uses would exceed the Bay Area Air District's significance criteria for NO_X, which represents the level at which an individual project's contribution of NO_X emissions to regional air quality impacts would be cumulatively considerable. Consequently, the proposed project's impacts would be significant and it would cumulatively contribute to the non-attainment ozone designations of the SFBAAB. There is no feasible mitigation available to reduce mobile source emissions associated with the proposed project. Therefore, the cumulative impact from operation of the proposed project on air quality would be ***significant and unavoidable***.

ES.9.2.2 Paleontological Resources

ES.9.2.2.1 Construction

Construction of the ferry terminal and visitor-serving uses would require pile driving into Pleistocene alluvium to support the ferry dock, access pier, and structures associated with the visitor-serving use. Pleistocene alluvium is considered to have a high potential for containing significant vertebrate fossils, and thus, disturbance of the Pleistocene alluvium has the potential to damage or destroy a unique paleontological resource, which would be a significant impact. The only feasible mitigation is to require construction monitoring where feasible when the construction site is reasonably accessible and visible, where soil spoils can be reasonably observed, and where construction methods do not completely destroy any potential specimen. Mitigation Measure MM GEO-1 would reduce the significant impact to paleontological resources during construction where monitoring is feasible. However, if piles are driven into the soils without prior excavation, monitoring is not feasible because of the nature of how the piles are installed. Further, some of the piles would be installed offshore where monitoring is not feasible. Given the geological conditions of the project site, pile driving is required, and because monitoring during pile driving may not be feasible, construction of the proposed project would have a ***significant and unavoidable impact*** on paleontological resources.

ES.9.2.2.2 Cumulative Impacts

Mitigation Measure MM GEO-1 would be implemented to address the proposed project's cumulatively considerable contribution to impacts relative to paleontological resources. However, even with implementation of Mitigation Measure MM GEO-1, the construction of the proposed project could destroy a unique paleontological resource, and the project would result in a cumulatively considerable contribution to impacts relative to paleontological resources. Impacts would remain ***significant and unavoidable*** after mitigation.

ES.9.3 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of alternatives includes: Alternative 1: No Project Alternative; Alternative 2: No Project Alternative – Reasonably Foreseeable Uses; and Alternative 3: Hybrid Sea Level Rise Adaptation/Reduced Development. The following evaluates each alternative relative to being the environmentally superior alternative.

ES.9.3.1 Alternative 1: No Project

Under Alternative 1, there would be no construction- or operations-related activities and impacts. The project site would be vacant and unused. Alternative 1 would avoid the proposed project's significant and unavoidable operational impact related to air quality (NO_X emissions) and construction impact related to paleontological resources. However, without a ferry terminal and ferry service, Alternative 1 would not provide the benefits of reduced regional VMT and corresponding reduced overall air pollutant emissions, GHG emissions, and fuel use as with the proposed project. Additionally, Alternative 1 would be inconsistent with regional and local programs and plans related to land use and the circulation system. Although Alternative 1 would be inconsistent with adopted regional and local plans and programs and not achieve the environmental benefits from reduced regional VMT and associated reductions in overall air pollutant emissions, GHG emissions, and fuel use, Alternative 1 would avoid the significant and unavoidable impact related to air quality (NO_X emissions) and paleontological resources of the proposed project.

ES.9.3.2 Alternative 2: No Project Alternative – Reasonably Foreseeable Uses

Under Alternative 2, there would be no construction- or operations-related activities and impacts. However, the Port would continue to lease the site for marine industrial uses. Alternative 2 would avoid the proposed project's significant and unavoidable operational impact related to air quality (NO_X emissions) and construction impact related to paleontological resources. Alternative 2 would be inconsistent with regional and local programs and plans related to land use and the circulation system. In addition, the net reduction in overall air pollutant emissions, GHG emissions, and fuel use that would occur under the proposed project due to the net reduction of regional VMT would not occur under Alternative 2. Although Alternative 2 would be inconsistent with adopted regional and local plans and programs and not achieve the environmental benefits from reduced regional VMT, overall air pollutant

and GHG emissions, and fuel use, Alternative 2 would avoid the significant and unavoidable impact related to air quality (NO_X emissions) and paleontological resources of the proposed project.

ES.9.3.3 Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development

Alternative 3 would have reduced square footage of visitor-serving uses so the number of visitors coming to the site would be reduced and VMT would decrease. As with the proposed project, Alternative 3 would provide a new transit option consistent with regional plans and programs and have reduced VMT compared to the proposed project, thereby avoiding the significant and unavoidable impact on air quality that would occur under operation of the proposed project.

Other environmental impacts would be similar to the proposed project, including a significant and unavoidable impact on paleontological resources due to pile driving. However, impacts related to construction activities and duration (e.g., air quality and noise generation) would be reduced because the site would not be fully elevated and the square footage of the visitor-serving uses would be less.

Operation of Alternative 3 would result in reduced VMT and lower operational energy use, air pollutant emissions, and GHG emissions than the proposed project. However, because the project site would not be fully elevated under Alternative 3 with new fill, the potential for impacts on cultural resources, hazards and hazardous materials, and hydrology and water quality (i.e., encountering groundwater). These impacts would still be less than significant because of adherence to established permits and implementation of mitigation measures. Further, Alternative 3 would not provide the same protection from sea level rise as the proposed project.

ES.9.3.4 Conclusion

Alternative 1 (the No Project Alternative), Alternative 2 (the No Project Alternative – Reasonably Foreseeable Uses), and Alternative 3 (the Hybrid Sea Level Rise Adaptation/Reduced Development Alternative) would result in different trade-offs compared to the proposed project. These tradeoffs include varying levels of construction disturbance, differences in long-term operational impacts, and distinct implications for sea level rise resilience and public access, across different environmental resource areas. Individuals and decision-makers may weigh these tradeoffs differently.

Alternative 1 would not involve any construction activities and would not have any operational air pollutant emissions and is therefore considered to be the environmentally superior alternative. However, under CEQA, if the No Project alternative is environmentally superior, an EIR is required to determine if an environmentally superior alternative exists among the other alternatives. Alternative 2 would also not have any construction activities and would not result in an exceedance of the Air District's daily or annual criteria pollutant emission thresholds, and it is therefore considered to be the next environmentally superior alternative. However, Alternative 2 is a variation of a No Project alternative.

Based on this comparison of environmental analysis, Alternative 3 is, therefore, considered the environmentally superior alternative. Under Alternative 3, the significant but mitigable impact on air quality during construction of the proposed project would be less than significant, and it would not result in an exceedance of the Air District's daily or annual criteria pollutant emission thresholds, thereby avoiding the significant and unavoidable operational impact on air quality. Impacts to paleontological resources during construction would be significant and unavoidable as with the proposed project. Because

ferry operations would remain the same but visitor-serving uses would be reduced, Alternative 3 would have reduced construction impacts and reduced VMT, air pollutant emissions, GHG emissions, and fuel use as compared to the proposed project.

ES.10 Public Comment

ES.10.1 Issues Raised and Areas of Controversy

ES.10.1.1 Scoping

The NOP was prepared and circulated pursuant to CEQA, and responses were received during the scoping period. The NOP was published on May 1, 2024 and is included as Appendix A of this Draft EIR along with the comment letters received during the scoping period and scoping meeting transcripts. The scoping period took place from May 1 to 31, 2024 with one scoping meeting held on May 15, 2024. Approximately 17 comment letters[15] were received and 14 people spoke at the scoping meetings.

The following is a general summary of issues raised during the scoping process.

- Air quality:
  - Study and disclose ferry emissions from diesel engines; consider using zero emissions vehicles for ferries
- Biological resources:
  - Identify and analyze impacts of ferry operations on marine mammals
  - Analyze impacts of removing the Shell Unloading Wharf on cliff swallows
  - Include analysis of the potential impacts the proposed project may have on Bair Island State Marine Park and Ecological Reserve and coordinate with the California Department of Fish and Wildlife prior to the release of the EIR
  - Assess pile-driving impacts on aquatic species
  - Consider implications of artificial light at night on wildlife and nesting birds
- Geological resources:
  - Address high liquefaction potential in the event of an earthquake
- Sea level rise, flood risk, and water quality:
  - Discuss how the proposed project will address flood protection, flood resiliency, and other risks associated with sea level rise
  - Concern that sea level rise could make the shoreline more vulnerable to wave runup and flooding, as well as cause a rise in groundwater resulting in subsidence
  - Address potential changes in water quality, flood flows, and drainage patterns from the proposed project and measures to prevent erosion and pollution

[15] This includes written communications and oral comments received at the public scoping meeting/open house.

  - Consider green infrastructure for storm drainage
- Recreation impacts:
  - Study how the wakes caused by the ferry would affect the recreational users in the area
  - Consider ferry speed needed to protect recreational boaters; add extra time to operations schedule for ferries to slow down to reduce wake effects
  - Describe the impact of the ferry turning radius on recreational boaters
  - Consider that peak weekday recreation usage overlaps with commuter ferry hours
- Transportation:
  - Keep ferry ridership projections updated and current (ridership decreased after the COVID pandemic)
  - Consider alternatives to the ferry, such as Caltrain
  - Include the 101 intersection in the area of effect for transportation
  - Consider implementing a traffic control plan for the proposed project
- Other:
  - Consider restricting ferry terminal to WETA vessels only and not allowing private ferries
  - Address consistency with the 2050 Service Vision and Expansion Policy
  - Consider analyzing the visitor-serving uses in a separate EIR
  - Address impacts dredging would have on recreational uses and biological resources

ES.10.1.2 Issues to be Resolved

The major issues to be resolved include decisions by the Port, as the entity responsible for CEQA review as to whether:

- the visitor-serving uses should be considered separately from the ferry terminal;
- the proposed project is preferable over one or more of the alternatives;
- the recommended mitigation measures should be adopted or modified; and
- the proposed project should or should not be approved for implementation.

ES.10.2 Where to Comment on the Draft EIR

Written comments may be submitted by mail, hand delivery, or email consistent with the procedures identified in the Notice of Availability to:

- Don Snaman, Project Manager at the Port of Redwood City, 675 Seaport Boulevard, Redwood City, CA 94063
- c-dsnaman@redwoodcityport.com

Upon completion of the public review period of this Draft EIR, written responses to all comments on environmental issues raised by commenters on the Draft EIR will be prepared and incorporated into the Final EIR. These comments, and their responses, will be included in the Final EIR for consideration by the Port of Redwood City Board of Port Commissioners.

Chapter 1
Introduction

1.1 Introduction

The proposed project would provide San Francisco Bay Ferry-operated passenger ferry service from a newly constructed ferry terminal at the Port of Redwood City (Port) with origin and destination points of San Francisco and Oakland. San Francisco Bay Ferry is a regional public ferry service with operations overseen by the Water Emergency Transportation Authority (WETA). The proposed project would also include multi-modal access improvements, an extension of the Bay Trail, relocation of existing infrastructure, and a zone change to allow future visitor-serving uses of a hotel, separate restaurant uses, and a small office adjacent to the ferry terminal.

Implementation of the proposed project would require various approvals and permits, starting with approval from the Port. Prior to that approval, the Port must consider the proposed project's environmental effects, which are identified in this Environmental Impact Report (EIR). This EIR serves to inform decision-makers and the public about the environmental effects of the proposed project, and has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 *et seq.*) and the Guidelines for Implementation of the California Environmental Quality Act of 1970 (CEQA Guidelines) (14 California Code of Regulations [CCR] Section 15000 *et seq.*). The Port is the entity responsible for CEQA review.

1.2 Background

1.2.1 Project Location

The project is comprised of various components in or near the Port and the Pacific Shores Center in Redwood City. The term "project area" refers to the location of all project components, and the term "project site" refers specifically to the 9.2 acre parcel that would be the site of the ferry terminal and visitor-serving uses. The project site is at the northern end of the Port, at the confluence of Westpoint Slough and Redwood Creek. The site is bounded by Redwood Creek to the west, Westpoint Slough to the north, Frontage Road and Union Pacific Railroad tracks to the east, and an aggregate and cement marine terminal operated by Cemex Construction Materials (CEMEX) to the south. Other project improvements in the project area include a portion of Seaport Boulevard west of the Pacific Shores Center, the railroad tracks and Frontage Road east of the Port, a portion of the existing western public parking lot and waterfront park northwest of the Pacific Shores Center, and a small site at the Pacific Shores Center for a relocated maintenance building. The ferries would operate within existing navigation routes in San Francisco Bay to and from Redwood City and San Francisco and Oakland. **Figure 1-1** and **Figure 1-2** show the location of the project site in a regional and local context, respectively.

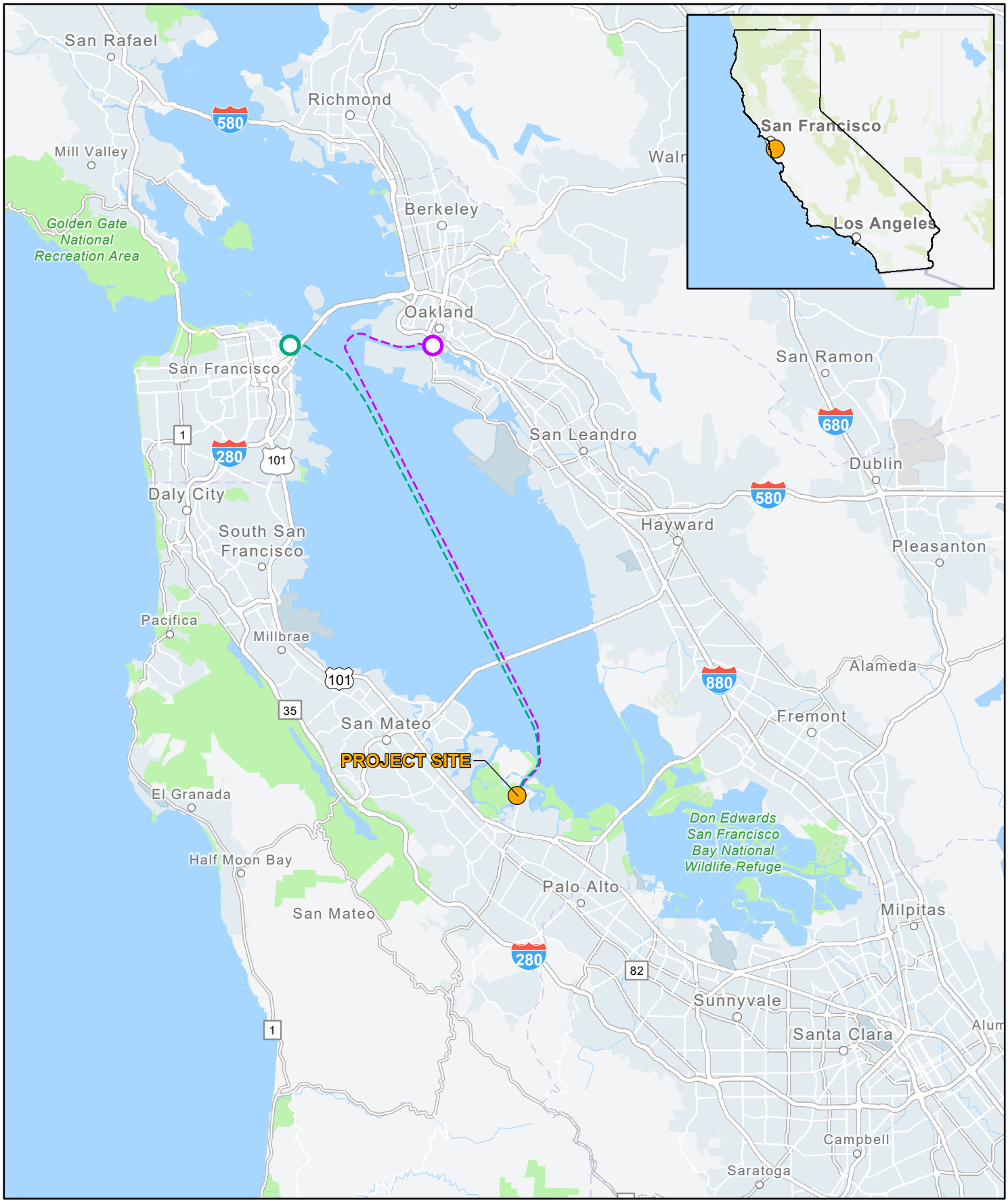


Figure 1-1

REGIONAL MAP



Figure 1-2

Port of Redwood City Ferry Terminal Project

VICINITY MAP

1.2.2 Brief Project Overview

The following provides a brief summary of the proposed project. This includes a description of the ferry terminal and associated access improvements that would be implemented concurrent with construction of the ferry terminal. The project also includes a proposed zone change that would allow for future visitor-serving uses to be established at the project site following construction of the ferry terminal. The potential uses and building square footages that could be allowed under the proposed zone change are identified below.

A full description of the proposed project is provided in Chapter 2.

1.2.2.1 Ferry Terminal

The proposed project involves the construction of a new ferry terminal on Port property. This new terminal would accommodate a new San Francisco Bay Ferry-operated passenger ferry service at Redwood City with origin and destination points of San Francisco and Oakland. Ferry service would be provided by San Francisco Bay Ferry with initial service during weekday morning and afternoon commute periods between the hours of approximately 6 AM to 9 PM using diesel-powered ferry vessels capable of carrying up to 320 passengers. As the ferry service matures, midday, evening, weekend, and special event service may be added. The service would be passenger only and would not transport vehicles. Transport of bicycles and small non-gas-powered mobility devices, such as skateboards and scooters, would be allowed pursuant to WETA/San Francisco Bay Ferry operating rules and U.S. Coast Guard regulations. WETA has a program in place, the Rapid Electric Emission-Free (REEF) Ferry Program, to transition the ferry fleet to zero-emission propulsion technology over time, which includes the electrification of ferry floats and development of high-speed, high-capacity zero-emission vehicles/vessels (ZEV).

The ferry terminal would have waterside and landside components, including a floating ferry dock with berths for two vessels, a gangway that provides a walkway connecting the float to the landside terminal facilities, and a fixed access pier with a security gate and canopy that provides access to the gangway. Other features include kiosks, an interim portable restroom facility, bicycle storage, a surface parking lot, transit stops for shuttle services to the project site that would be established, a ride-share and general public passenger drop-off and pick-up area, and new utilities required to establish the proposed ferry service. The proposed project also includes widening the Seaport Boulevard loop road from the Pacific Shores Center entrance to the ferry terminal site to accommodate an off-street paved bicycle trail that is separated from vehicle traffic (Class I bicycle trail) and an Americans with Disabilities Act (ADA)-compliant sidewalk, and extending the Bay Trail along the northern edge of the project site to the ferry terminal. The relocation of existing infrastructure (e.g., railroad spur, terminus of Frontage Road, lighting and utilities, and a maintenance building) and modifications to the existing western public parking lot would be required to accommodate the access improvements. Additionally, the proposed project includes an amendment to the San Francisco Vessel Mutual Assistance Plan[1] (SF-VMAP) to incorporate the Redwood City ferry service and vessels.

[1] U.S. Coast Guard, Sector San Francisco Bay. May 30, 2021. San Francisco Vessel Mutual Assistance Plan (SF-VMAP).

1.2.2.2 Visitor-Serving Uses

Consistent with the Port's 2020 Vision Plan,[2] the Port is proposing future uses at the project site to expand waterfront access to the community and increase visitor-serving amenities. This includes a zone change through the City of Redwood City (City) to change the zoning classification of the project site from General Industrial (GI) to General Commercial (CG) and an amendment to the San Francisco Bay Conservation and Development Commission (BCDC)'s San Francisco Bay Area Seaport Plan.[3] This would allow for the future construction up to a maximum of a three-story full-service hotel of up to 180,000 square feet total with an associated restaurant, retail and meeting event facilities space; standalone restaurant uses (up to 20,000 square feet); a standalone office space (up to 10,000 square feet); and a permanent restroom facility at the ferry terminal. Additional on-site parking would be provided to accommodate the visitor-serving uses, which could include parking on the ground floor of the hotel and some additional surface parking. The precise number of parking spaces and location required would be determined at the time specific development is proposed.

1.3 Purpose of an EIR

The purpose of an EIR is to inform the decision-makers, regulatory agencies, and the public about the significant environmental impacts of a proposed project prior to consideration of project approval. CEQA was enacted by the California Legislature in 1970 and requires public agency decision-makers to consider and document the environmental effects of their actions and, whenever feasible, to avoid or reduce adverse effects to the environment. When a state or local agency determines that a proposed project has the potential to significantly affect the environment, an EIR is normally prepared. In addition, an EIR identifies alternatives that can reduce the proposed project's significant effects while achieving most of the project objectives. A public agency must mitigate or avoid significant environmental impacts of projects it carries out or approves, whenever feasible. In instances where significant impacts cannot be avoided or mitigated, the project may nonetheless be carried out or approved if the approving agency finds that economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the project's unavoidable adverse environmental effects.

[2] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com) .

[3] San Francisco Bay Conservation and Development Commission (BCDC). November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

1.4 Earlier Analysis

Pursuant to Section 15168(d) of the CEQA Guidelines, "to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the [expansion of ferry transit service] program as a whole," this EIR incorporates the following documents by reference:

- Final Program EIR prepared for the Expansion of Ferry Transit Service in the San Francisco Bay Area;[4]
- Final Environmental Impact Statement/EIR for the Downtown San Francisco Ferry Terminal Expansion Project;[5]
- Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility;[6,7]
- The Bay Area Air District[8] (Air District)'s Clean Air Plan adopted in 2017;[9]
- The San Mateo County Factsheet[10] for Plan Bay Area 2050+;
- City of Redwood City's Urban Water Management Plan adopted in June 2026;[11] and
- City of Redwood City's 2023-2031 Housing Element of the City's General Plan.[12]

These documents are available for review on the Port website:

- https://www.redwoodcityport.com/ferry

[4] WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[5] WETA and U.S. Department of Transportation Federal Transit Administration (FTA) Region IX. September 2014. Downtown San Francisco Ferry Terminal Expansion Project Final Environmental Impact Statement/Environmental Impact Report. Prepared by URS Corporation.

[6] WETA. 2011. Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility. Available: https://www.redwoodcityport.com/ferry.

[7] The San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility was part of the transbay ferry expansion identified in WETA's (formerly Water Transit Authority) A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan published in 2002 and evaluated in the 2003 Final Program EIR.

[8] The Bay Area Air District is a streamlined name change announced by the Bay Area Air Quality Management District (BAAQMD) in January 2025. Documents published by the Air District that are referenced in this EIR are attributed to BAAQMD.

[9] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[10] MTC and ABAG. March 6, 2026. Final Plan Bay Area 2050+ San Mateo County Factsheet. Available: https://planbayarea.org/sites/default/files/documents/pba50_plus_san_mateo_county_fact_sheet.pdf?cb=7d7bef44.

[11] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[12] City of Redwood City. 2023-2031 Housing Element, City of Redwood City. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/28334/638484500539830000.

1.5 List of Agencies Expected to Use this EIR and List of Permits and Other Approvals

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment (PRC Section 21067). The proposed project requires discretionary approvals of the project by state and local agencies. The Port has the primary responsibility for approving the project as a whole and is the appropriate entity to act as lead agency (CEQA Guidelines Section 15051), including but not limited to permits and approvals pursuant to City Municipal Code Section 44.16.

Several other agencies have special roles with respect to the proposed project and will use this EIR as the basis for their decisions to issue any approvals and/or permits that might be required. These agencies may also be consulted for information and input related to the proposed project. **Table 1-1** lists the agencies and bodies that may rely on this EIR in a review capacity or as a basis for issuance of a permit or other approval for the proposed project and identifies those potential permits, approvals, or consultation requirements. **Table 1-1** also lists federal agencies that may also be involved in issuing permits and approvals associated with implementation of the proposed project. Consultation and permits from utilities, including Pacific Gas and Electric Company, and consultation with Union Pacific would also be required.

Table 1-1 Agencies, Permits, and Approvals

Agency	Permit/Authority
Local, Regional, and State Agencies	
Water Emergency Transportation Authority (WETA)	Ferry service provider
City of Redwood City	Zone Change Planning permits as applicable Grading and drainage review Wastewater Discharge Permit Sewer Connection Permit Building and Safety permits Encroachment Permit Temporary Traffic Control Plans Demolition Permit Tree Removal Permit Vacation of a portion of Frontage Road Roadway and off-site circulation
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Clean Water Act Section 401 Clean Water Act Section 404 National Pollutant Discharge Elimination System (NPDES) Construction General Permit Stormwater Pollution Prevention Plan (SWPPP) Dredging Permit
San Francisco Bay Conservation and Development Commission (BCDC)	Administrative or Major Permit Dredging Permit
Association of Bay Area Governments	Bay Trail improvements
San Mateo County Transportation Authority (SMCTA)	Transportation planning, funding, and delivery in San Mateo County
San Mateo County Transit District (SamTrans)	Modified bus links to project site
California Public Utilities Commission (CPUC)	Railroad Safety Oversight
California State Lands Commission (CSLC)	Submerged Lands
California Department of Fish and Wildlife	Fish and Game Code Section 2081(b) Incidental Take Permit Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement Coordination related to any project activities affecting the Bair Island State Marine Park and Bair Island Ecological Reserve
Bay Area Air Quality Management District	Air Quality
Federal Agencies	
U.S. Army Corps of Engineers (USACE)	Clean Water Act Section 404 Rivers and Harbors Act Section 10 Dredging Permit
U.S. Fish and Wildlife Service (USFWS)	Federal Endangered Species Act Section 7
National Marine Fisheries Service (NMFS)	Federal Endangered Species Act Section 7 Marine Mammal Protection Act Magnuson-Stevens Fishery Conservation and Management Act
U.S. Coast Guard, San Francisco Sector	Marine Navigation and Safety

1.6 Scope and Content of the Draft EIR

The scope of the Draft EIR was established based on the Notice of Preparation (NOP) and Initial Study (IS) prepared and circulated pursuant to CEQA, and responses received during the review period. The NOP/IS was published on May 1, 2024, and is included as Appendix A of this Draft EIR. A listing of all comment submissions, a summary of oral comments received at the scoping meeting/public open house, and copies of the written correspondences received during the review period are also included in Appendix A. The review period took place from May 1 to May 31, 2024, with a scoping meeting/open house held on May 15, 2024. A total of 30 comment submissions were received, including 16 written correspondences and 14 oral comments.

In addition to technical studies prepared specifically for this Draft EIR, this Draft EIR uses information from various documents (reports, technical studies, etc.) that were not prepared for the proposed project but provide relevant information in describing environmental conditions and analyzing the environmental effects of the proposed project. Information taken from these documents is identified in the relevant environmental impact analysis sections of the Draft EIR. These documents are also listed in Chapter 6 of this document. As noted under CEQA Guidelines Section 15148, "[t]hese documents should be cited but not included in the EIR."

As required by Section 15150(b) of the CEQA Guidelines, documents incorporated by reference (see **Section 1.4** above) are available for public inspection at the Port of Redwood City Office, 675 Seaport Boulevard, Redwood City, CA 94063. For purposes of clarification, documents identified as incorporated by reference are separate from the other reference materials used to prepare this Draft EIR (as distinguished in Chapter 6 of this Draft EIR). Technical studies prepared specifically for the proposed project are included in Appendices B through I of this Draft EIR.

1.6.1 Scope of Analysis

This Draft EIR has been prepared in conformance with CEQA (PRC Sections 21000 *et seq*.) and the CEQA Guidelines (14 CCR Sections 15000 *et seq.*). It includes all of the sections required by CEQA.

Under CEQA, a "threshold of significance" can be defined as an "identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant" (CEQA Guidelines, Section 15064.7[a]). The criteria for determining the significance of environmental impacts in this Draft EIR are described in the section titled "Thresholds of Significance" under each resource topic in Chapter 3. The threshold of significance for a given environmental effect is the level at which the Port finds an impact of the proposed project or alternative to be significant.

The NOP/IS indicated that there are no agricultural/forest resources, mineral resources, or lands within or near state responsibility areas or lands classified as very high fire hazard severity zones in the area. Additionally, the proposed project would have no impact on population and housing as it would not induce substantial unplanned population growth in the area, either directly or indirectly, or displace existing people or housing. Specific environmental issues for which the proposed project was found to have no impact are related to: aesthetics (scenic resources along a state scenic highway); geology and soils (landslide hazards and soils incapable of adequately supporting the use of septic tanks or alternative

wastewater disposal systems); hazards and hazardous materials (hazards within 0.25 mile of schools and exposure to wildland fires); land use and planning (physical division of an established community); and public services (physical impacts to schools and other public facilities). As a result, there would be no impacts to these resource issue areas and, therefore, they are not evaluated further in this Draft EIR in accordance with CEQA Guidelines Sections 15063(c)(3)(A) and 15128. Additional details on these analyses are provided in Chapter 5 and in the NOP/IS, included as Appendix A of this Draft EIR.

The following resource areas are evaluated in this Draft EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise and Vibration
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

1.6.2 Draft EIR Organization

The Draft EIR is comprised of the following chapters and appendices:

- *Executive Summary* – summarizes the Draft EIR and provides a summary table of the proposed project's effects on the environment, mitigation measures, and the environmental impacts after mitigation. The Executive Summary also presents areas of controversy, including issues raised by members of the public and agencies during the public scoping period and presents a summary of the alternatives evaluated in the Draft EIR. Detailed analysis of these issues is contained in the main body of the document.
- *Introduction* (Chapter 1) – describes the purpose of the EIR, a list of agencies that may utilize the EIR, the availability of the Draft EIR, and a brief outline of organization of this document.
- *Project Description* (Chapter 2) – describes the project location, proposed project components, project objectives, and anticipated phasing of the proposed project.
- *Environmental Analysis* (Chapter 3) – discusses the setting (existing conditions and regulatory framework) for each environmental resource area, impact assessment methodology, the environmental impacts that could result from the proposed project, and the proposed mitigation measures (if any) that would eliminate or reduce the identified significant impacts. The criteria (thresholds) used to assess the significance of environmental impacts are identified, and the significance of the impact both prior to and following mitigation is reported. Cumulative impacts for each resource are also identified, including whether those impacts are significant and, if so, whether the proposed project's incremental contribution to that impact is cumulatively considerable.

- *Alternatives Analysis* (Chapter 4) – evaluates a reasonable range of alternatives to the proposed project. It describes impacts that would result from each of the alternatives, compares the significant environmental impacts of the proposed project and alternatives, and identifies the Environmentally Superior Alternative. It also identifies alternatives initially considered but not carried forward for detailed review.
- *Other CEQA Considerations* (Chapter 5) – discusses the extent to which the proposed project would have significant environmental effects, as well as the mitigation measures proposed to minimize significant effects and identification of those significant environmental effects that cannot be avoided if the proposed project is implemented (if any). It also discusses the significant irreversible environmental changes that could result from implementation of the proposed project. In addition, this chapter discusses the extent to which the proposed project would result in growth-inducing impacts. Chapter 5 also identifies resource areas and specific issues that were determined to have no impact in the NOP/IS and includes a brief evaluation to support that determination.
- *References* (Chapter 6) – identifies the materials and documents consulted in preparing this Draft EIR.
- *List of Preparers* (Chapter 7) – lists the individuals involved in preparing this Draft EIR.
- *Acronyms and Abbreviations* (Chapter 8) – provides the full names for acronyms and abbreviations used in this document.
- *Appendices* – presents the NOP/IS and comments received on the IS/NOP, and technical studies prepared for the environmental impact analyses in this Draft EIR.

1.7 Where to Comment on the Draft EIR

Comments may be submitted in writing by mail, hand delivery, or email consistent with the procedures identified in the Notice of Availability to:

- Don Snaman, Project Manager at the Port of Redwood City, 675 Seaport Boulevard, Redwood City, CA 94063
- c-dsnaman@redwoodcityport.com

Upon completion of the public review period of this Draft EIR, written responses to all comments on significant environmental issues raised by commenters on the Draft EIR will be prepared and incorporated into the Final EIR. These comments, and their responses, will be included in the Final EIR for consideration by the Port of Redwood City Board of Port Commissioners.

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Chapter 2
Project Description

2.1 Introduction

The proposed project would provide San Francisco Bay Ferry-operated passenger ferry service at the Port of Redwood City (Port) with origin and destination points of San Francisco and Oakland. As described in detail below, the proposed project is comprised of waterside and landside components, including a ferry terminal with a ferry dock, gangway, access pier and security gate, and a surface parking lot. It also includes access improvements and a zoning change from General Industrial to General Commercial to allow for future visitor-serving uses of a three-story hotel, a stand-alone restaurant, and up to 10,000 square feet of stand-alone office space.

This chapter provides a description of the proposed project, including information on the proposed project's background and project objectives, and details on the proposed project's location, components, construction, and operation.

2.2 Background and Overview

Ferry services have played an important role in the development of the San Francisco Bay Area transportation network, and they offer a convenient and practical mobility alternative to congested land-based transportation and public transit services. In its 2016 Strategic Plan, the Water Emergency Transportation Authority (WETA), which oversees the operation and expansion of the San Francisco Bay Ferry services, envisioned eleven new ferry terminals, including a new terminal in Redwood City, and eight new routes by the year 2035.[1] In May 2024, the WETA Board approved a 2050 Service Vision and Expansion Policy[2] that identifies a ferry terminal in Redwood City as one of four Tier 1 priority projects for expanding the ferry network. The Port of Redwood City has long been considered a potential ferry terminal site. A Redwood City – San Francisco route was first identified in an Implementation and Operations Plan (IOP)[3] prepared in 2002 for the expansion of ferry service in the San Francisco Bay Area and evaluated in a 2003 Program EIR.[4] The first planning study for the terminal was completed in 2007,[5] which identified the San Francisco route and a possible route between Oakland and Redwood City. Redwood City and WETA later conducted a site feasibility study of ferry service at a Port of Redwood City

[1] Water Emergency Transportation Authority (WETA). 2016. 2016 Strategic Plan. Available: https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2019/03/WETAStrategicPlanFinal.pdf.

[2] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

[3] WETA (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[4] WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[5] Port of Redwood City. 2007. Port of Redwood City Ferry Terminal Locational Analysis, Environmental Assessment, & Conceptual Design. Prepared by CHS Consulting Group. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18192.

site in 2012.[6] In 2020, the Port adopted the 2020 Vision Plan,[7] a long-term strategic vision with the goal of strengthening the Port's impact to the region's economy and quality of life. The 2020 Vision Plan identifies a ferry terminal at the Port as a key component of this vision. The terminal is also identified in Plan Bay Area 2050+, the Bay Area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that was adopted in March 2026.[8]

Port of Redwood City

The Port is located on the southwest side of San Francisco Bay, approximately 18 nautical miles from San Francisco along Redwood Creek. It is the only deep draft port in South San Francisco Bay and specializes in bulk and liquid cargoes. The primary inbound cargo received at the Port is dry bulk cargo construction materials and the primary outbound cargo is scrap metal. The Port was founded by City Charter in 1937 and is an enterprise agency of the City with its own governing commission as appointed by the City Council. Its ownership and jurisdiction encompass a 120-acre industrial and maritime complex with three deep-draft operating berths. Most of the Port's property falls within the Port Priority Use designation for maritime commerce and ancillary maritime industrial uses identified in the San Francisco Bay Conservation and Development Commission (BCDC)'s San Francisco Bay Area Seaport Plan,[9] which is part of the San Francisco Bay Plan.[10] The Port is currently zoned for general industrial and industrial park uses and primarily provides long-term waterside leases to heavy maritime industries. Other uses at the Port include small offices, dry boat storage, a former restaurant currently being used as a conference center, a sailing school, a recreational public marina, a yacht club, a shoreline promenade, and a fishing pier. A freight rail system supports movement of goods to and from the Port. In 2017, the Federal Emergency Management Agency (FEMA) designated the Port as a Federal Staging Area during any catastrophic event.

The Port is situated along the Redwood City Harbor Channel, which is a Federal channel that extends approximately five miles from the Port to deep water in San Francisco Bay. There are two turning basins, Turning Basin #1 nearest the Bay and Turning Basin #2 which is an inner basin near the Port. The width of the channel and turning basins range from 300 to 900 feet. The channel is scheduled for maintenance dredging by the U.S. Army Corps of Engineers (USACE) on a two-year dredging cycle and has an authorized dredging depth of -30 feet mean lower low water (MLLW).

2.2.1 San Francisco Bay Ferry Service

The San Francisco Water Transit Authority (WTA) was created in 1999 by the State legislature to plan new and expanded ferry service and ground support facilities. In 2002 and 2003 respectively, WTA published the IOP and associated Program EIR that identified seven new potential ferry routes, including a Redwood

[6] WETA. July 2012. Redwood City Ferry Terminal - Site Feasibility Report (Draft). Prepared by KPFF Consulting Engineers. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[7] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[8] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[9] San Francisco Bay Conservation and Development Commission (BCDC). November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

[10] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

City-San Francisco route.[11] In 2007, the State legislature established WETA to replace WTA and directed WETA to run a consolidated regional ferry system and prepare the system to respond to a natural or man-made disaster. WETA oversees the operation of the San Francisco Bay Ferry and coordinates water transit response during regional emergencies. The San Francisco Bay Ferry has a fleet of 18 high-speed passenger-only ferries and transports over three million passengers annually. The ferries use propeller or water jet propulsion and currently operate on renewable diesel (R99). The ferries currently serve the cities of Alameda, Oakland, Richmond, San Francisco, South San Francisco, and Vallejo. There is a program in place, the Rapid Electric Emission-Free (REEF) Ferry Program, to transition the fleet to zero-emission propulsion technology that includes electrification of ferry floats and development of high-speed, high-capacity zero-emission vessels (ZEV).

WETA's 2016 Strategic Plan identifies full buildout of the system as expanding ferry service throughout the entire Bay Area and improving existing services in the Central and North Bay. The Strategic Plan identifies new terminal locations to expand the regional network, including a terminal located at Redwood City.[12] In May 2024, the WETA Board approved a 2050 Service Vision and Expansion Policy[13] for how to expand the ferry network to improve regional connectivity, emergency, response, and community connections. The proposed Redwood City ferry service would align with the 2050 Service Vision and Expansion Policy, which outlines the growth of San Francisco Bay Ferry's ferry network through Tier 1 projects, including the Oakland to Redwood City service, and Tier 2 projects, including the San Francisco to Redwood City service. The Expansion Policy identifies requirements and criteria prior to the advancement of WETA's planning and development process. This includes deployment of ZEVs, if feasible. If not feasible, expansion projects would use existing vessels in the San Francisco Bay Ferry fleet until the end of their useful life when they would be replaced with ZEVs.[14]

2.2.2 Redwood City Ferry Terminal Planning

The 2007 planning study for the ferry terminal[15] analyzed three potential terminal sites within the Port: Wharf 5, F-dock, and the 9.2 acre project site (Pacific Shores/Westpoint Slough). The ferry terminal concept that was considered at the Pacific Shores/Westpoint Slough in the 2007 planning study was on the north side of the site in Westpoint Slough. The Pacific Shores/Westpoint Slough site was chosen as the preferred site because it had the fewest major disadvantages; this was confirmed in a feasibility study conducted in 2012.[16] In support of a Ferry Financial Feasibility Study and Cost-Benefit and Economic Impact Analyses that was published in 2020 (2020 Feasibility Study and Cost-Benefit Analyses).[17] As a part of the 2020 study, the Port's engineering consultant, COWI, reviewed the 2012 feasibility study. The 2020

[11] WETA (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[12] WETA. 2016. 2016 Strategic Plan. Available: https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2019/03/WETAStrategicPlanFinal.pdf.

[13] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

[14] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

[15] Port of Redwood City. 2007. Port of Redwood City Ferry Terminal Locational Analysis, Environmental Assessment, & Conceptual Design. Prepared by CHS Consulting Group. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18192.

[16] WETA. July 2012. Redwood City Ferry Terminal - Site Feasibility Report (Draft). Prepared by KPFF Consulting Engineers. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[17] City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://www.redwoodcity.org/home/showpublisheddocument/22921/637442616488470000.

study reconfirmed that the Pacific Shores/Westpoint Slough location was a feasible location. COWI also conducted further investigation within the proposed site and identified that a second option for the ferry terminal at the west end of the site in Redwood Creek would also be feasible. The investigation for the 2020 Feasibility Study and Cost-Benefit Analyses further determined that the west end option would greatly reduce the need for dredging due to the existing navigation channel and it would provide easier maneuvering in and out of the berth. Based on the investigation, the 2020 Feasibility Study and Cost-Benefit Analyses included preliminary planning, design, and engineering work that confirmed the viability of a ferry terminal and further supported the Pacific Shores/Westpoint Slough site. It also identified the west end option as the Port's preferred option. This was further confirmed in the Port's 2020 Vision Plan and the Redwood City Ferry Business Plan[18] prepared in 2022.

2.3 Project Objectives

The underlying purpose of the proposed ferry terminal project is to implement the expansion of ferry service as generally identified in WETA's 2050 Service Vision and Expansion Policy and 2016 Strategic Plan and the Port's 2020 Vision Plan, thereby providing a new Bay Area transit option and encouraging commercial and recreational uses. Specific project objectives are identified below.

- Extend multi-modal transportation solutions that ease regional traffic congestion, reduce per capita vehicle miles traveled and greenhouse gas emissions, and increase the shoreline accessibility and appeal.
- Provide an efficient alternative mode of transportation for transit dependent communities in and around Redwood City, San Francisco, and Oakland.
- Expand emergency response capabilities. This includes enhancing the FEMA emergency response network for the San Francisco Bay area, providing an alternative form of transit that would operate in the case of an emergency event that disables roads, other transit, bridges, and/or tunnels, and expanding marine mutual aid in San Francisco Bay.
- Utilize the 9.2-acre ferry terminal parcel to capitalize on an opportunity to create a Port of Redwood City destination for the local community and visitors that better connects the city to the waterfront and builds economic opportunities for Redwood City.
- Expand visitor-serving uses to promote commercial and recreational activity within the Port thereby activating the shoreline.
- Provide infrastructure sufficient to accommodate WETA's transition to a transit service that is powered by zero-emission technology.
- Increase the Port's resilience to rising sea levels.

2.4 Project Location and Setting

The project is comprised of various components in or near the Port and the Pacific Shores Center. The term "project area" refers to the location of all project components, and the term "project site" refers

[18] Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan. Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf.

specifically to the 9.2 acre parcel that would be the site of the ferry terminal and visitor-serving uses. The list below includes a brief description of the project area and project components:

- **Project site:** The ferry terminal site in Redwood Creek and a 9.2 acre parcel located at the northern end of the Port where Westpoint Slough and Redwood Creek meet that would be the site of the landside ferry terminal facilities, Bay Trail extension, and future visitor-serving uses;
- **Seaport Boulevard corridor:** An approximately 60-foot wide corridor that encompasses Seaport Boulevard and approximately 10 to 13 feet of land on either side of the roadway west of the intersection at the entrance of the Pacific Shores Center to just north of the entrance of the project site, which would be used for vehicle, pedestrian, and bicycle access to the project site; the intersection at the entrance of the Pacific Shores Center, which would connect the existing trail south of the Pacific Shores Center to the proposed bicycle and pedestrian improvements; and approximately 200 feet of the eastern leg of the loop road southeast of the intersection and approximately 30 feet of the landscape buffer and parking lot to the southwest of this roadway segment for roadway geometry adjustments, which would accommodate the intersection improvements;
- **Waterfront park:** A portion of the waterfront park directly east of the project site and north of the Pacific Shores Center that has a short unpaved trail that connects to the Bay Trail, which would be paved and extended to the project site to connect the new segment of the Bay Trail to the existing segment;
- **Western public parking lot and maintenance building site:** A portion of the western public parking lot and existing maintenance building directly east of the project site and northwest of the Pacific Shores Center that would be used for access to the project site;
- **Relocated maintenance building site:** An approximately 0.1 acre site within the Pacific Shores Center property that would be the site of the relocated/reconstructed maintenance building;
- **Frontage Road:** Approximately 1,200 feet of Frontage Road from the terminus at the project site entrance to 500 feet north of Hinman Road which would be vacated;
- **Relocated railroad tracks:** Approximately 300 feet of existing railroad tracks located between the 9.2 acre project site and the waterfront park and public parking that would be removed and replaced with a new railway spur that would connect to the existing tracks within a vacated portion of Frontage Road; and
- **San Francisco Bay (including Redwood Creek and Westpoint Slough):** Existing navigation lanes in San Francisco Bay from the project site to the ferry terminals in the Port of San Francisco and adjacent to the Port of Oakland.

The San Francisco Bay, including the ferry routes, and the regional location are shown on **Figure 2-1**. **Figure 2-2** shows the project site and landside project area in greater detail in context of the surrounding development, islands, and waterways. **Figure 2-3** shows the project site and landside project area in greater detail. **Figure 2-4** shows the limits of construction.

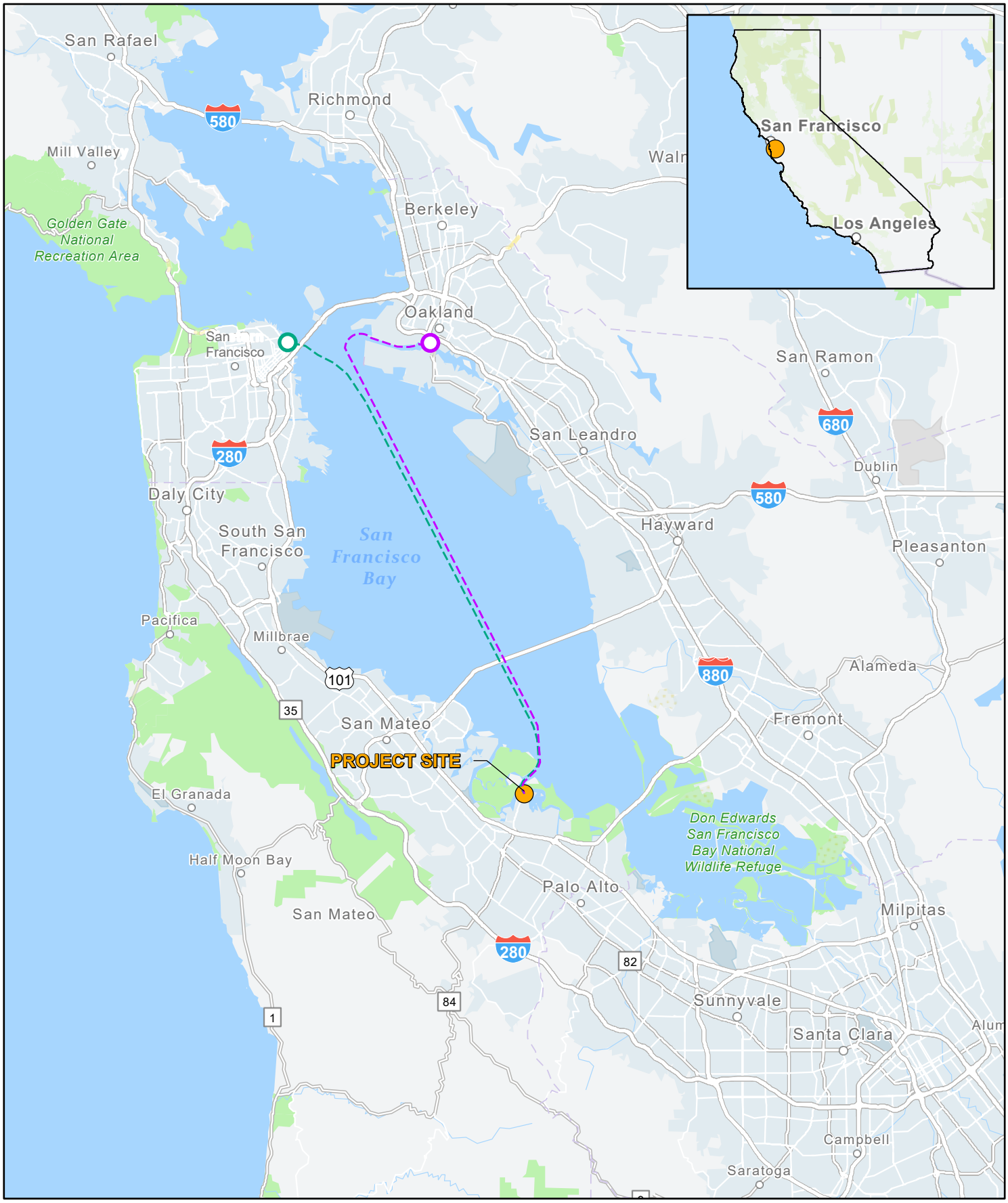


Figure 2-1

Port of Redwood City Ferry Terminal Project

REGIONAL MAP



Figure 2-2

Port of Redwood City Ferry Terminal Project

VICINITY MAP

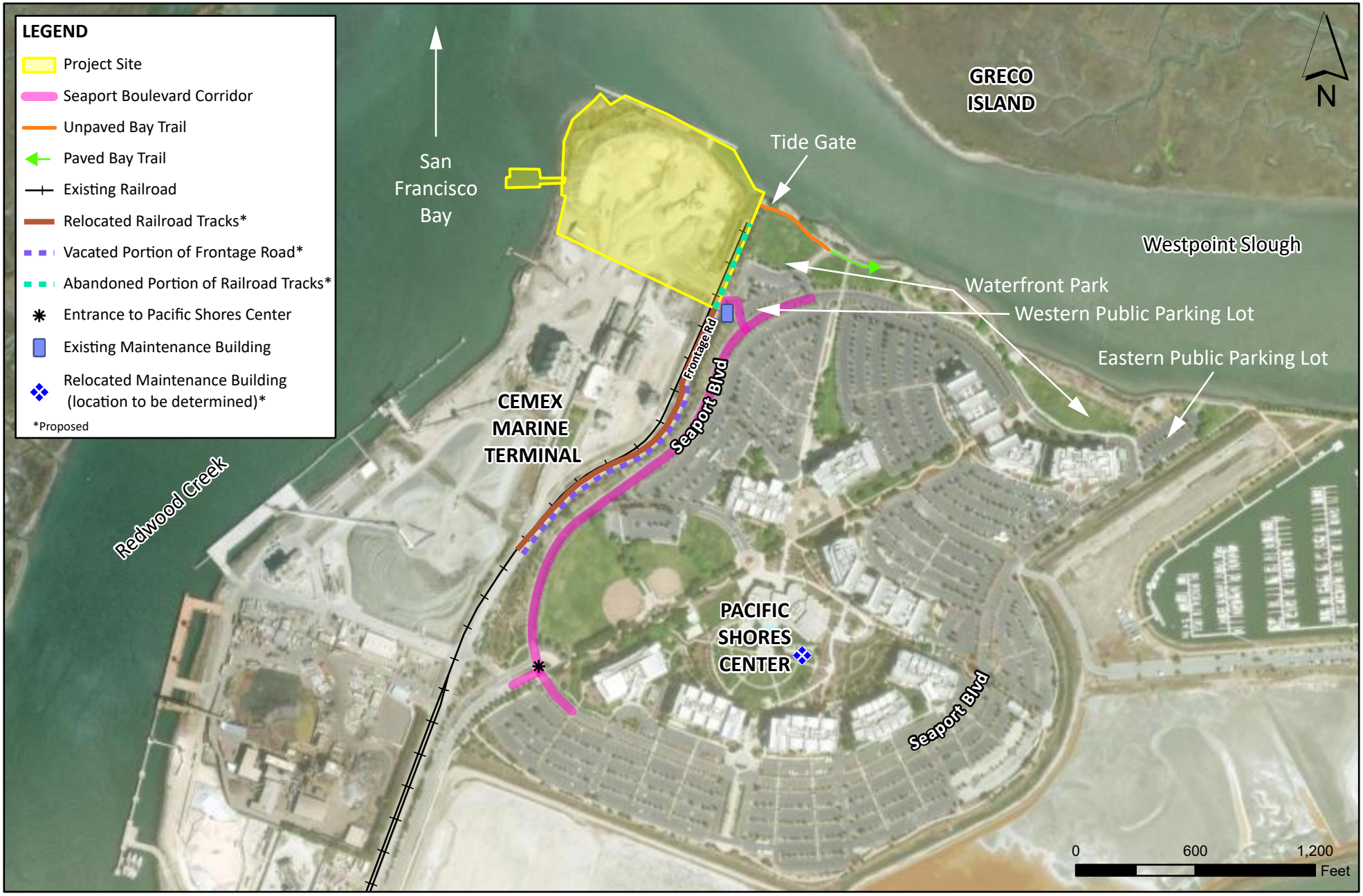


Figure 2-3

PROJECT SITE AND LANDSIDE PROJECT AREA

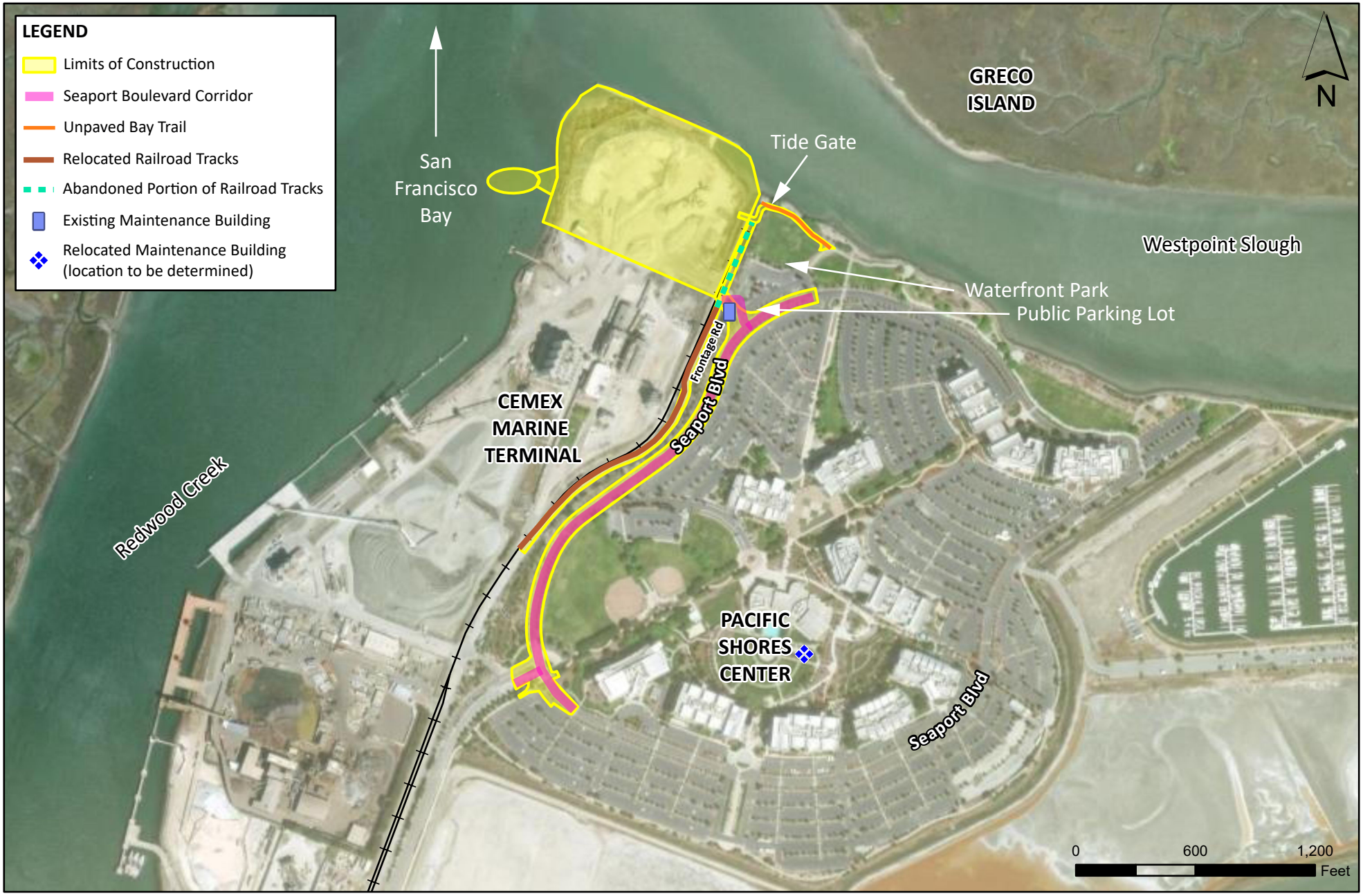


Figure 2-4

Port of Redwood City Ferry Terminal Project

LIMITS OF CONSTRUCTION

Project Site

The project site is in Redwood City on land owned by the Port, bordered by Redwood Creek to the west, Westpoint Slough to the north, Frontage Road and railroad tracks to the east, and an aggregate and cement marine terminal operated by Cemex Construction Materials (CEMEX) to the south. Bair Island is across Redwood Creek to the west and northwest of the project site and Greco Island is across Westpoint Slough to the northeast. Opposite the railroad tracks to the east is Seaport Boulevard and the Pacific Shores Center office complex and parking lots. Immediately east of the project site is a publicly accessible waterfront park, a portion of the Bay Trail, and a public parking lot for the waterfront park (referred to herein as the western public parking lot) and small maintenance building.

The project site is owned by the Port and is under a month-to-month lease to CEMEX, which used it for the stockpiling of materials for recycling and sale of concrete base rock. CEMEX is currently in the process of vacating the project site and, pursuant to lease terms, is removing landside improvements located on-site, including a storage building, equipment and machinery, and stockpiles. Pursuant to lease terms, CEMEX would also install a conveyance pipe and fill the stormwater ditch on the eastern edge of the site. The site would be cleared and graded to a height of approximately 10-feet North American Vertical Datum (NAVD)[19] prior to commencement of the proposed project.

The project site is a graded flat site of hard packed dirt, with a shoreline that is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. There are some vegetated areas, primarily along the edges of the project site and the shoreline. A vegetated stormwater ditch extends along the eastern edge of the property, from approximately 400 feet to the south along the CEMEX marine terminal north to a tide gate with a one-way flap approximately 80 feet from the entrance to Westpoint Slough. Per the lease agreement with CEMEX and addressed under a previous CEQA evaluation,[20] CEMEX is in the process of filling the ditch and installing a drainage pipe to convey stormwater to the outlet in Westpoint Slough. The stormwater ditch is approximately 25 feet in width. The Shell Unloading Wharf, an abandoned cement wharf that was constructed in 1962 and used for unloading oyster shells dredged from the Bay to process into cement, extends parallel from the shore into Westpoint Slough at the northern edge of the project site.

The project site is currently accessed from the CEMEX marine terminal to the south. Frontage Road terminates at an entrance at the project site; however, this portion of the roadway is gated and not used. The entrance to the project site where Frontage Road terminates crosses the railroad tracks and is gated with a chain link fence. Access to this portion of Frontage Road is also prevented by a controlled access gate approximately 1,300 feet south of the project site. Access from the western public parking lot for the waterfront park to Frontage Road is blocked by bollards. The bollards and gates prevent direct access to the project site from Seaport Boulevard.

The Redwood City General Plan land use map designates the project site as M (Marina) and the corresponding zoning classification is GI (General Industrial).[21]

[19] NAVD is established for vertical control surveying in the U.S.

[20] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

[21] City of Redwood City. 2023. General Plan Land Use Map. Available: https://webgis.redwoodcity.org/storymap/hubsite/mapgallery/RWC_GeneralPlanMap_Effective08242023.pdf.

Seaport Boulevard Corridor

Seaport Boulevard is a four-lane public roadway that extends in a generally north/south direction from U.S. Route 101 to the entrance of the Pacific Shores Center, where it becomes a private two-lane loop road that provides access to the Pacific Shores Center and waterfront park. The western leg of the loop road would be used to access the project site. The Seaport Boulevard Corridor encompasses the length of roadway from the entrance to the Pacific Shores Center to the project site entrance, including the existing roadway and approximately 10 to 13 feet of land on both sides of the roadway that consists primarily of a landscaped buffer on either side and driveways into the Pacific Shores Center parking lots. It also includes the intersection, approximately 200 feet of the eastern leg of the loop road, and approximately 30 feet of the landscape buffer and parking lot to the southwest of this roadway segment.

To the west of Seaport Boulevard, the landscaped buffer varies from approximately 30 feet to 180 feet in width and includes a berm that separates Seaport Boulevard from Frontage Road, the railroad tracks, and Port properties. The distance between Seaport Boulevard and Frontage Road varies from over 200 feet at the Pacific Shores Center entrance to approximately 35 feet at the closest point. The landscape buffer east of Seaport Boulevard is approximately 20 feet in width and it separates Seaport Boulevard from the Pacific Shores Center parking lots and turf field that is part of the Pacific Shores Club fitness center. There are underground utilities, aboveground utility boxes, and streetlights located within the corridor.

The intersection is a three-way, stop-controlled intersection with a marked crosswalk connecting the existing path south of the Pacific Shores Center to the private walkway within the Pacific Shores Center. The eastern leg of the roadway east of the intersection has an approximately 20 foot landscape buffer and a large surface parking lot to the southwest. The Pacific Shores Center walking path and approximately 100 feet of landscaping is located to the northeast.

As a transportation corridor, Seaport Boulevard does not have a land use designation or zoning classification. The land use designation of the land east of Seaport Boulevard within the Seaport Boulevard Corridor is O (Commercial - Office Professional/Technology) and the corresponding zoning classification is CP (Commercial Park).

Waterfront Park

The publicly accessible waterfront park is directly north of the Pacific Shores Center and extends along the length of Westpoint Slough from the project site on the west to Northpoint Court and the Westpoint Marina on the east. The waterfront park is private property owned by the Pacific Shores Center. As set forth in the development agreement with the City, it is generally intended for use by Pacific Shores Center occupants and the general public.[22] The waterfront park includes a segment of the Bay Trail, an unpaved trail that extends westward from the Bay Trail towards the project site, and three circular concrete plazas with seating areas near the water's edge. There are public parking lots on the western and eastern ends of the park and crosswalks on Seaport Boulevard that provide access from Seaport Boulevard and the Pacific Shores Center. The western public parking lot near the project site has approximately 70 spaces and the eastern public parking lot has approximately 120 spaces. There are two driveways on the northwestern side of the Seaport Boulevard loop road into the western public parking lot (east of the

[22] City of Redwood City and Pacific Shores Center Limited Partnership. October 26, 1998. Development Agreement by and Between City of Redwood City and Pacific Shores Center Limited Partnership.

project site). The park is primarily landscaped vegetation, trees, and turf grass. To the north is Westpoint Slough and Greco Island, to the south is the Pacific Shores Center parking lots and office buildings, to the west is the project site, and to the east is Westpoint Marina. Pursuant to the development agreement with the City, the waterfront park is open for public access and passive recreational use from sunrise to sunset, although access can be restricted by Pacific Shores for scheduled events, games, or gatherings.

The Redwood City General Plan land use map designates the waterfront park in the project area as O (Commercial – Office Professional/Technology) and OS-SF (Open Space – San Francisco Bay) and the corresponding zoning classification is CP (Commercial Park) and IP (Industrial Park).

Western Public Parking Lot and Maintenance Building Site

A portion of the western public parking lot for the waterfront park is within the project area. It is located directly east of the project site and north of the Pacific Shores Center and has approximately 70 spaces and two driveways on either end of the lot that connect to Seaport Boulevard. There is a maintenance building constructed of cinder block, which is approximately 1,000 square feet in size (approximately 40 feet by 25 feet), with a roll up door and driveway ramp. There are five additional parking spaces in front of the maintenance building. There is a paved connection from the western public parking lot to Frontage Road and the project site, however, access between the two properties is prevented by bollards and a gated chain-link fence.

The western public parking lot is part of the Pacific Shores Center which has a land use designation of O (Commercial – Office Professional/Technology) and a corresponding zoning classification of CP (Commercial Park).

Relocated Maintenance Building Site

The existing maintenance building located adjacent to the western public parking lot for the waterfront park would be demolished and replaced by a new building of similar size and construction at a new location within the Pacific Shores Center property. The specific location would be within the Pacific Shores property as selected by the Pacific Shores Center management based on their operational and site planning needs. The Pacific Shores Center has a land use designation of O (Commercial – Office Professional/Technology) and a corresponding zoning classification of CP (Commercial Park).

Frontage Road and Relocated Railroad Tracks

Approximately 1,200 feet of Frontage Road from about 500 feet north of Hinman Road to the terminus at the project site entrance would be vacated. The portion of railroad track located between the project site and the waterfront park would be removed and an equivalent or greater length of tracks would be established south of the project site within the footprint of the vacated segment of Frontage Road.

As a transportation corridor, Frontage Road and the railroad tracks do not have a land use designation or zoning classification. The land use designations of the adjacent land within the project area is M (Marina) and IP (Industrial – Port Related) to the west and LI (Light Industrial) and O (Commercial – Office Professional/Technology) to the east. The corresponding zoning classifications of the adjacent land is GI (General Industrial) to the west and Commercial Park (CP) to the east.

San Francisco Bay (including Redwood Creek and Westpoint Slough)

The project site is located at the confluence of Redwood Creek and Westpoint Slough. Redwood Creek is to the west of the project area and Westpoint Slough is to the north. These water channels flow into the San Francisco Bay, which is a large bay that parallels the coastline and flows into the Pacific Ocean through the Golden Gate strait. San Francisco Bay is adjacent to many communities in the Bay Area, such as San Francisco, Redwood City, Mountain View, Fremont, and Oakland. The project area and Redwood City are located on the southwestern side of the San Francisco Bay.

WETA oversees operation of the San Francisco Bay Ferry, which currently operates a fleet of 17 high-speed passenger-only ferry vessels in the Bay, serving the cities of Alameda, Oakland, Richmond, San Francisco, South San Francisco, and Vallejo. San Francisco Bay Ferry currently carries over three million passengers annually.[23] The ferries operate in established navigational channels within the Bay and the ports.

The water areas within Redwood City, including Redwood Creek and Westpoint Slough, have a land use designation of OS – SF (Open Space – San Francisco Bay) and a zoning classification of TP (Tidal Plain).

San Francisco Bay is considered part of the project area in that the ferries of the proposed new ferry service would transit the Bay while enroute to their destinations. The analysis of the proposed project focuses on the portions of the Bay where impacts would most likely occur, which are Redwood Creek and Westpoint Slough. However, any impacts that could affect other areas in the Bay are identified and are evaluated in this EIR as applicable, such as in Sections 3.1, Aesthetics, 3.2, Air Quality, and 3.9, Hydrology and Water Quality. San Francisco Bay and the ferry routes are shown on **Figure 2-1**.

[23] WETA. 2024. Water Emergency Transportation Authority San Francisco Bay Ferry Service. Available: https://weta.sanfranciscobayferry.com/.

2.5 Project Overview

The proposed project would provide San Francisco Bay Ferry-operated passenger ferry service at Redwood City with origin and destination points of San Francisco and Oakland. Ferry service would be provided by San Francisco Bay Ferry with initial service during weekday morning and afternoon commute periods between the hours of approximately 6 AM to 9 PM, utilizing ferry vessels capable of carrying up to 320 passengers. As the ferry service matures, midday, evening, weekend, and special event service may be added. The service would be passenger only and would not transport vehicles. Transport of bicycles and small non-gas-powered mobility devices, such as skateboards and scooters, would be allowed pursuant to WETA/San Francisco Bay Ferry operating rules and U.S. Coast Guard (USCG) regulations. The ferry terminal would consist of waterside and landside components required to establish the proposed ferry service as well as site access improvements. The proposed project also includes a zone change and an amendment to the BCDC's San Francisco Bay Area Seaport Plan[24] to allow visitor-serving amenities at the project site consistent with the Port's 2020 Vision Plan.[25] Additionally, the proposed project includes an amendment to the San Francisco Vessel Mutual Assistance Plan[26] (SF-VMAP) to incorporate the Redwood City ferry service and vessels. The project components are described in greater detail below.

Figure 2-5 provides a site plan and **Figure 2-6** shows a conceptual rendering of the project site at full buildout based on the maximum square footage assumptions for the proposed visitor-serving uses and a conceptual building layout.

2.5.1 Ferry Terminal Components

The ferry terminal would have waterside components consisting of berths for two ferry vessels at a pile-supported floating dock with ramps and a gangway to a pile-supported access pier with a landside security gate, electric utilities for boarding ramps, shore power, and lighting. The landside components would consist of a parking lot with transit stops, roadway improvements, bicycle/pedestrian network connections, secure bicycle parking, and utilities serving the ferry terminal site. An interim portable restroom facility would be provided by the Port. These components are described further below.

Figure 2-7 shows the plan for the ferry terminal. **Figure 2-8** is a photograph of the ferry terminal at Alameda Seaplane Lagoon that would be similar to the proposed project. The ferry terminal improvements would also include an amendment to the SF-VMAP to incorporate the proposed Redwood City ferry service and vessels. The SF-VMAP is a mutual aid plan that identifies actions for evacuating passengers from a stricken ferry boat. It is a plan to provide for other underway ferry boats to rapidly assist a ferry vessel in distress in the San Francisco Bay. The amendment would ensure that the Redwood City Ferry service is included in the planning, coordination, and implementation in the event of an emergency.

[24] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.
[25] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[26] U.S. Coast Guard, Sector San Francisco Bay. May 30, 2021. San Francisco Vessel Mutual Assistance Plan (SF-VMAP).

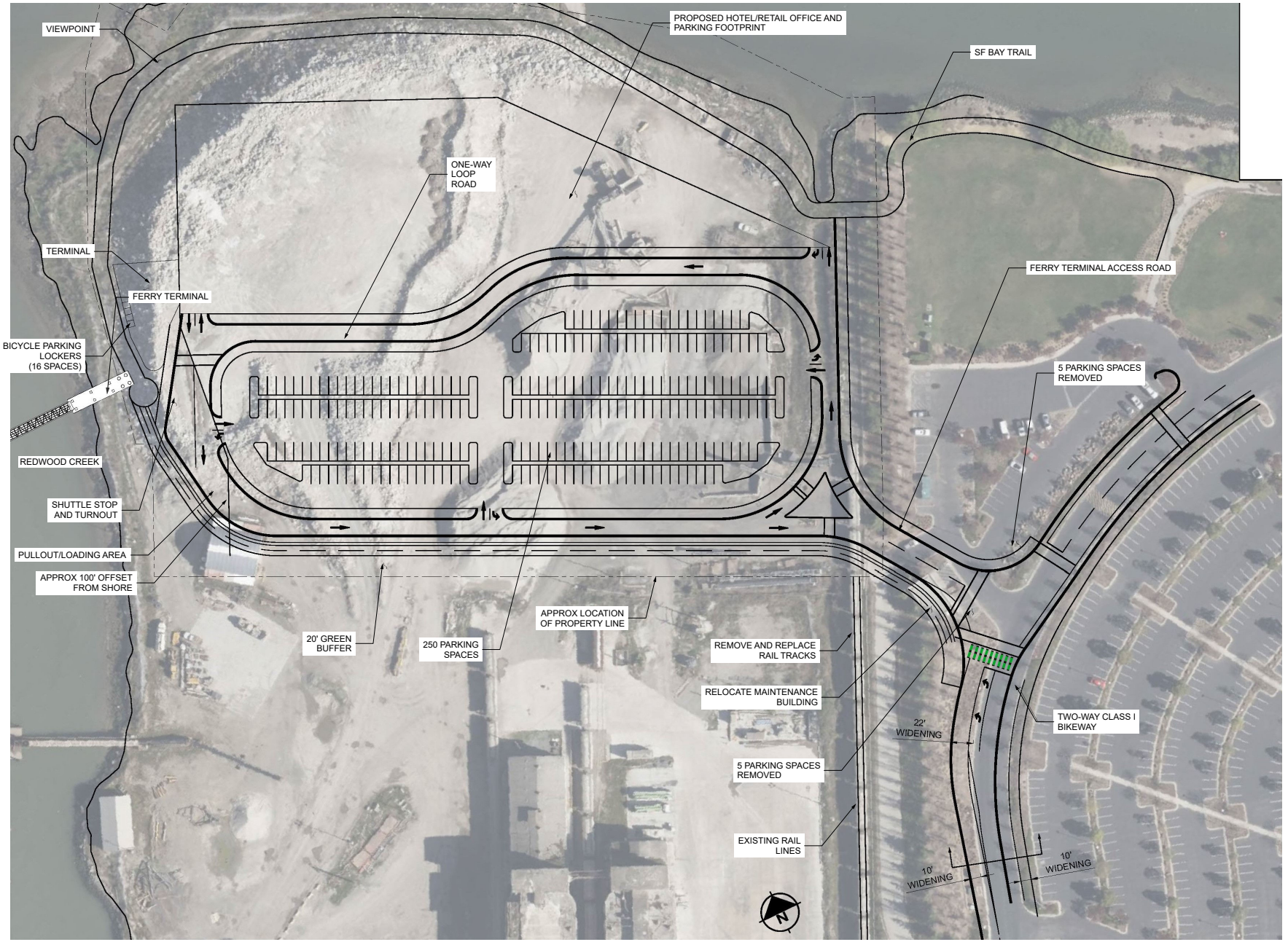


Figure 2-5

Port of Redwood City Ferry Terminal Project

PROJECT SITE PLAN



Figure 2-6

Port of Redwood City Ferry Terminal Project

CONCEPTUAL SITE RENDERING

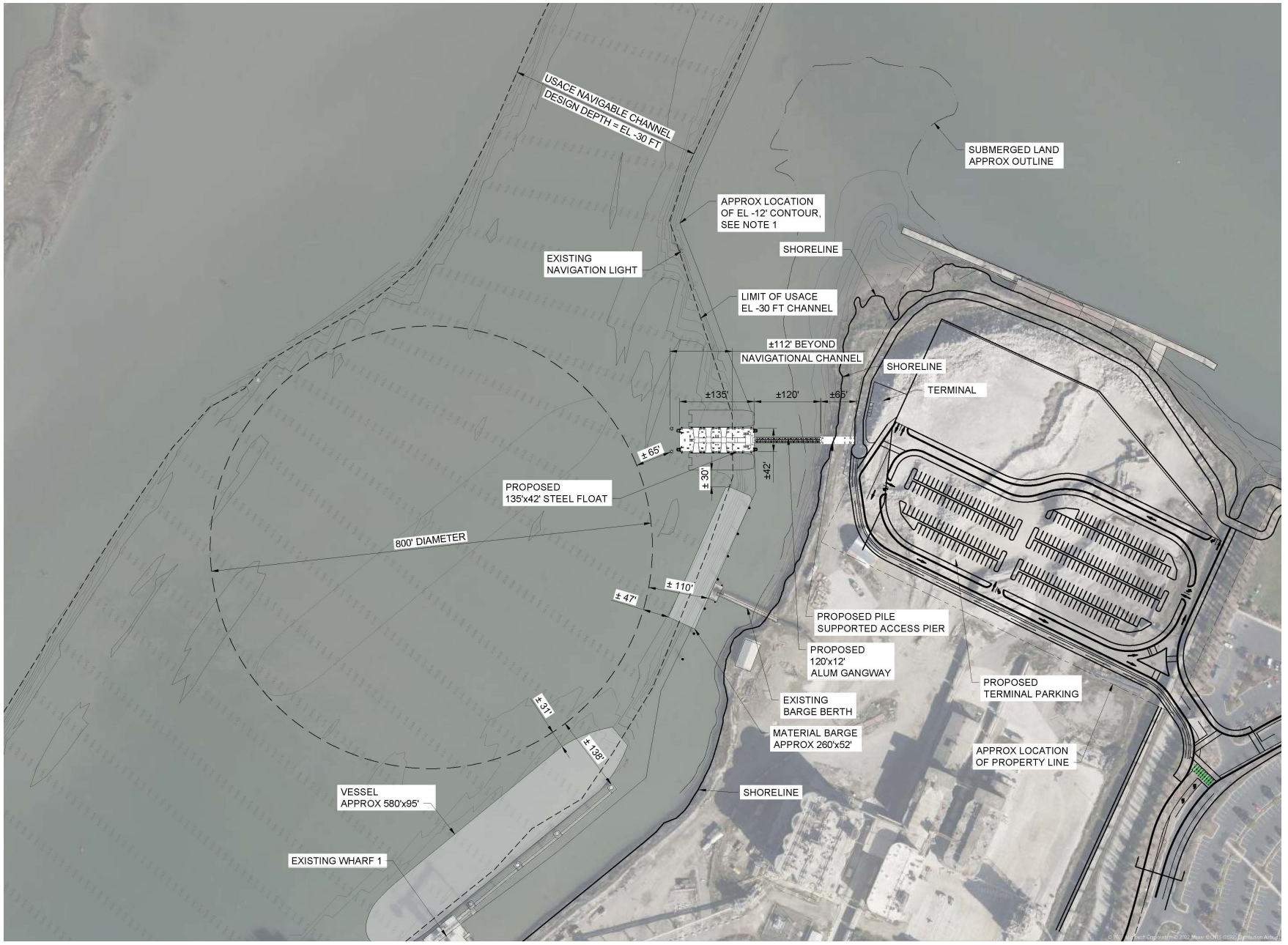

USACE NAVIGABLE CHANNEL
DESIGN DEPTH = EL -30 FT
SUBMERGED LAND
APPROX OUTLINE
APPROX LOCATION
OF EL -12' CONTOUR,
SEE NOTE 1
SHORELINE
EXISTING
NAVIGATION LIGHT
LIMIT OF USACE
EL -30 FT CHANNEL
±112' BEYOND
NAVIGATIONAL CHANNEL
SHORELINE
TERMINAL
±135'
±120'
±65'
± 65'
± 30'
±42'
PROPOSED
135'x42' STEEL FLOAT
800' DIAMETER
± 110'
± 47'
PROPOSED PILE
SUPPORTED ACCESS PIER
PROPOSED
120'x12'
ALUM GANGWAY
PROPOSED
TERMINAL PARKING
EXISTING
BARGE BERTH
MATERIAL BARGE
APPROX 260'x52'
± 31'
± 139'
APPROX LOCATION
OF PROPERTY LINE
VESSEL
APPROX 580'x95'
SHORELINE
EXISTING WHARF 1

Figure 2-7



Source: COWI, 2024.

Figure 2-8 Alameda Seaplane Lagoon Ferry Terminal

2.5.1.1 Waterside Facilities

The waterside components would include a steel floating platform (float) with berths for two ferry vessels from which passengers can board or disembark from the ferry. As shown on **Figure 2-7**, the float would be located on the western shore of the project site, extending into Redwood Creek. The float would act as the landing for vessels servicing the terminal and would provide access for passengers. The platform would allow the berthing of two ferries at the same time, and would also allow for either side of the float to be used for boarding.

The float would be moored in place by six steel guide piles that would support the float and provide navigation aid for landing vessels. The top elevation of the guide piles would account for sea level rise. The guide piles would be approximately 36 inches in diameter and 120 feet long. Two of the guide piles with floating donut fenders would be located at the offshore end of the float. The donut fenders would protect the corners of the float and provide a pivot point for vessels entering and leaving the berth.

The dimensions of the float would be consistent with recommended WETA specifications, which are currently 42 feet by 135 feet (5,670 square feet). WETA's ferry terminal standard specification recommendations are in the process of being updated to include space for the possible future installation of electric vessel charging infrastructure, in the event the technology evolves and becomes commercially

available. It is currently not feasible to operate electric powered ferry vessels on the proposed Redwood City routes. This is due to the lack of available electric vessels which have the range to serve the required route length at the desired speed. However, the float dimensions would conform with the updated recommendations, which would include providing compartments in the float for future power electronics and equipment. This includes space to accommodate electric vessel charging infrastructure and an on-site battery energy storage system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. To account for a potential increase in the dimensions of the float, for purposes of this analysis, the float is assumed to be 45 feet by 135 feet (6,075 square feet).

The length of the float would accommodate the boarding ramp system with two high ramps and one low ramp, and deck space for workers. The boarding ramp configuration would allow for the full range of San Francisco Bay Ferry vessels to land at the float and would comply with Americans with Disabilities Act (ADA) requirements. The adjustable high boarding ramps would be located fore and aft (front and rear) for high freeboard vessels. The ramps would be spaced 50 feet apart and line up with the spacing of the fore and aft doors on San Francisco Bay Ferry vessels. The low ramp would allow vessels that may have low freeboards to use the float.

Walking platforms on the float and an ADA-compliant gangway would provide passenger access to a pile-supported access pier. The aluminum gangway would be up to 120 feet in length and 10 feet in width between handrails to accommodate two rows of passengers and have a light transmitting surface. The final width would be based on expected passenger loading operations and would account for additional room needed for passengers boarding with bicycles.

The covered pile-supported access pier would be approximately 50 feet in length and 12 feet in width and would be fixed to the land, providing access from the landside terminal entrance to the gangway. The final length would be determined during final design based on the site elevation increase and placement of the float. The access pier would be supported by four to ten steel or precast concrete piles with cap beams that are approximately 24- to 36-inches in diameter. The access pier would have a deck elevation similar to the landside elevation and would take sea level rise into account. The access pier would have a security gate that is landside of the gangway connection with a canopy or other weather protection for queuing passengers. The ferry terminal facilities would use non-reflective building materials such as wood, cement, concrete, non-polished metal, and semi-transparent aluminum for the gangway.

The length of the pile-supported access pier and gangway would be based on final engineering and design considerations relative to maximum slope necessary to reach the lowest observed water elevation and compliance with ADA requirements without encroachment of the ferry dock into the turning basin. The gangway slope would vary depending on the tide levels during passenger loading/unloading, whereby the slope would be greatest during low tides and less when tides are higher. The ADA requires a maximum ramp slope of 1:12.[27] Design considerations that would provide for accessibility during the lowest tidal events include sloping the access pier slightly lower at the connection to the gangway so the top of the gangway is lower than the landside elevation or lengthening the gangway by adjusting the length of the

[27] The U. S. Access Board, which is a federal agency that promotes accessibility for people with disabilities, is developing accessibility guidelines for passenger vessels under the ADA. While not yet finalized, the Section V410 of the draft guidelines identifies that gangway runs shall have a running slope not steeper than 1:12.

access pier or location of the dock. Further, San Francisco Bay Ferry crew members would be on-site at all times when the gangway is in use to provide passenger assistance, including any embarking or disembarking at low tides when the gangway slope would be greatest.

2.5.1.2 Landside Facilities

The landside components would include a parking lot with 250 spaces for ferry users, transit stops for shuttle services to the project site that would be established, and ride share and general public passenger drop-offs and pick-ups. As shown on **Figure 2-5**, a one-way loop access road for vehicles would extend around the perimeter of the parking lot. The one-way one-lane loop road would travel counterclockwise. Vehicles would be able to enter or exit the parking lot from this road at three access points to the east, west, and south of the parking lot or travel to a drop-off area and transit stop for the ferry terminal at the western edge of the project site.

The parking lot would meet: State and City electric vehicle (EV) requirements as described in Section 3.5, Energy, and 3.7, Greenhouse Gas Emissions; the City's landscaping and drainage requirements as described in Section 3.9, Hydrology and Water Quality; and ADA requirements that include the size, location, and number of parking spaces and accessible route of travel to the terminal. The transit stops and drop-off area would be on the western edge of the project site, closest to the terminal. Ferry information displays would be located near the drop-off area and terminal boarding area. Additionally, there would be a minimum of 16 secure parking lockers for bicycle/micromobility devices (such as scooters) and short-term (unsecured) bicycle parking facilities for a minimum of two bicycles. This exceeds the amount of long-term (secured) bicycle parking and meets the amount of short-term (unsecured) bicycle parking recommended in the City's Bicycle Parking Design Guidelines[28] for parking lots and Bay Trail (e.g., parks requirement). An interim portable restroom facility would be provided for ferry passengers near the terminal boarding area. An approximately 20-foot landscaped buffer with a security fence would be established at the southern site boundary to provide a visual and physical buffer that prevents the public from entering the Port's restricted industrial areas. An off-street paved bicycle trail that is separated from vehicle traffic (Class I bicycle trail) and sidewalk would be located on the southern side that connects from Seaport Boulevard to the ferry terminal. Additional discussion of site access, including the bicycle trail and sidewalks, and the extension of the Bay Trail is provided in **Section 2.5.1.4** and **Section 2.5.1.5** below, respectively.

2.5.1.3 Utilities

The only utility connections at the project site are a connection to electrical power at the CEMEX marine terminal to run security lights and a fiber connection to the Port office to run security cameras. These connections would be abandoned and new connections to the existing utility network would be required to serve landside and waterside elements, including electrical, communication, and water utilities. Electric utilities would be needed to operate the adjustable boarding ramp lift system, lighting, and vessel lay berth shore power. Lighting would be provided on the access pier, gangway and float, including rail lighting along the gangway and float walkway system. Lighting would also be provided for the passenger waiting area and the parking lot. Potable water is needed for hose bibs on the float and a fire water system would be established, consistent with Redwood City Fire Department requirements. Communication

[28] City of Redwood City. June 2024. Bicycle Parking Design Guidelines. Available: https://www.redwoodcity.org/home/showpublisheddocument/29028/638623564866770000.

utilities would be provided to operate the security system, public address system, and Clipper card[29] readers. New permanent stormwater facilities would be installed to collect stormwater and provide treatment in compliance with State, county, and City requirements. See Section 3.15, Utilities and Service Systems, for additional information.

The interim portable restroom facility would be self-contained and would not be connected to the municipal sanitary sewer system. Freshwater and electricity for the restroom would be provided by connections to the new site utilities. The interim portable restroom facility would be replaced by a permanent facility when a connection to the municipal sanitary sewer system is established at the project site for future visitor-serving uses (see **Section 2.5.2**).

2.5.1.4 Access/Connectivity

The project site would be accessed from the Seaport Boulevard loop road. Vehicles would travel north on Seaport Boulevard and onto the Seaport Boulevard loop road at the entrance to the Pacific Shores Center. Vehicles would then travel north along the western leg of the Seaport Boulevard loop road and turn left onto the new access road into the project site. The access road would have one lane in either direction for vehicles entering and exiting the project site. The intersection of the access road and Seaport Boulevard would be controlled by an all-way stop. A minimum 140-foot left turn pocket on Seaport Boulevard would be provided for vehicles turning left into the project site. Vehicles exiting the project site could turn left or right onto Seaport Boulevard, but most vehicles would turn right to exit the Pacific Shores Center. Marked crosswalks and sidewalks would be provided and a bicycle crossing would be at the southern side of the access road. **Figure 2-3** shows the roadway layout in the project area and **Figure 2-5** shows a conceptual site plan of the project site and project site access.

The new site access road from Seaport Boulevard would be south of the waterfront park's western public parking lot. One of the public parking lot's existing driveways and approximately five parking spaces would be eliminated to accommodate the new access road. The remaining driveway and approximately 65 parking spaces would remain unmodified. There would be no connecting access between the western public parking lot and the new access road. There is also a cinderblock maintenance building with five parking spaces used by the Pacific Shores Center that is located southwest of the western public parking lot that would be removed to accommodate the project site access road. The building is approximately 1,000 square feet and 15 feet in height.

Additional roadway modifications include the widening of the western leg of the Seaport Boulevard loop road by approximately 10 to 13 feet on both sides from the entrance to the Pacific Shores Center to just north of the entrance to the project site. The widening would accommodate a Class I bicycle trail and an ADA-compliant sidewalk. The new Class I bicycle trail would be a two-way bikeway/multiuse path east of Seaport Boulevard that is approximately 13 feet in width and separated from the roadway by a raised curb, bollards, or other buffer. The sidewalk would be on the eastern edge of the bicycle trail and approximately 10-feet in width. The bicycle trail would extend from the entrance of the Pacific Shores Center to a marked crosswalk at the entrance to the project site on the southern side of the access roadway. After crossing into the project site, it would then extend along the southern boundary and turn north along the western site boundary until it reaches the ferry terminal.

[29] Clipper is the all-in-one transit card used for contactless fare payments throughout the San Francisco Bay Area.

The sidewalk would follow a similar route but it would extend farther north on the Seaport Boulevard loop road past the project site access road to the western public parking lot entrance to the north. It would also extend along the northern side of the access road and the eastern boundary of the project site where it would connect with the Bay Trail extension discussed below. The bicycle trail and sidewalk would meet Bay Trail requirements and would connect the project site and waterfront park to the existing segment of the Bay Trail on Seaport Boulevard to the south. The existing portion of the Bay Trail will connect to the future bike and pedestrian path at the US 101/SR 84 interchange and Broadway and Veterans Boulevard.

The intersection at the entrance to the Pacific Shores Center would be modified to accommodate the proposed sidewalk and bicycle trail and establish a safe connection to the existing trail to the south. To maintain the existing landscaped entry design and signage at the Pacific Shores Center entrance, the roadway would be shifted to the southwest and the proposed bicycle trail and sidewalk would be on the northeast in the footprint of the existing roadway. Approximately 200 feet of roadway to the east would also be shifted to the southwest. This would require removal of the existing landscape buffer and approximately seven parking spaces to the southwest. A new landscape buffer would be provided on both sides of the roadway. The intersection modifications are shown in **Figure 2-9**.

The entrance to the Pacific Shores Center is currently an all-way stop-controlled intersection. An analysis conducted in compliance with the City's Transportation Analysis Manual[30] that is separate from and not required under CEQA indicates that this intersection would operate with high service delays and low speeds (Level of Service F) at peak hours due to future traffic increases associated with the proposed project and the Pacific Shores Center businesses under the Cumulative (2040) conditions (see Appendix H, Transportation Study Report, of this Draft EIR). To address the projected future traffic delays, the Port would install a traffic signal at this intersection to improve traffic flow. This analysis assumes installation of the traffic signal in 2039 and operation by 2040. However, should future intersection conditions indicate that a traffic signal is required prior to 2040 to meet City standards, the Port would install the traffic signal at an earlier date. The intersection improvements discussed above and shown in **Figure 2-9** have been designed to provide for future signalization at this location. The roadway and intersection improvements would conform with the City's Engineering Standards for street design.[31]

[30] City of Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311184673700000.

[31] City of Redwood City. 2023. Engineering Standards Volume III: Design Criteria Part III. Street Design Criteria. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards/volume-3-design-criteria.

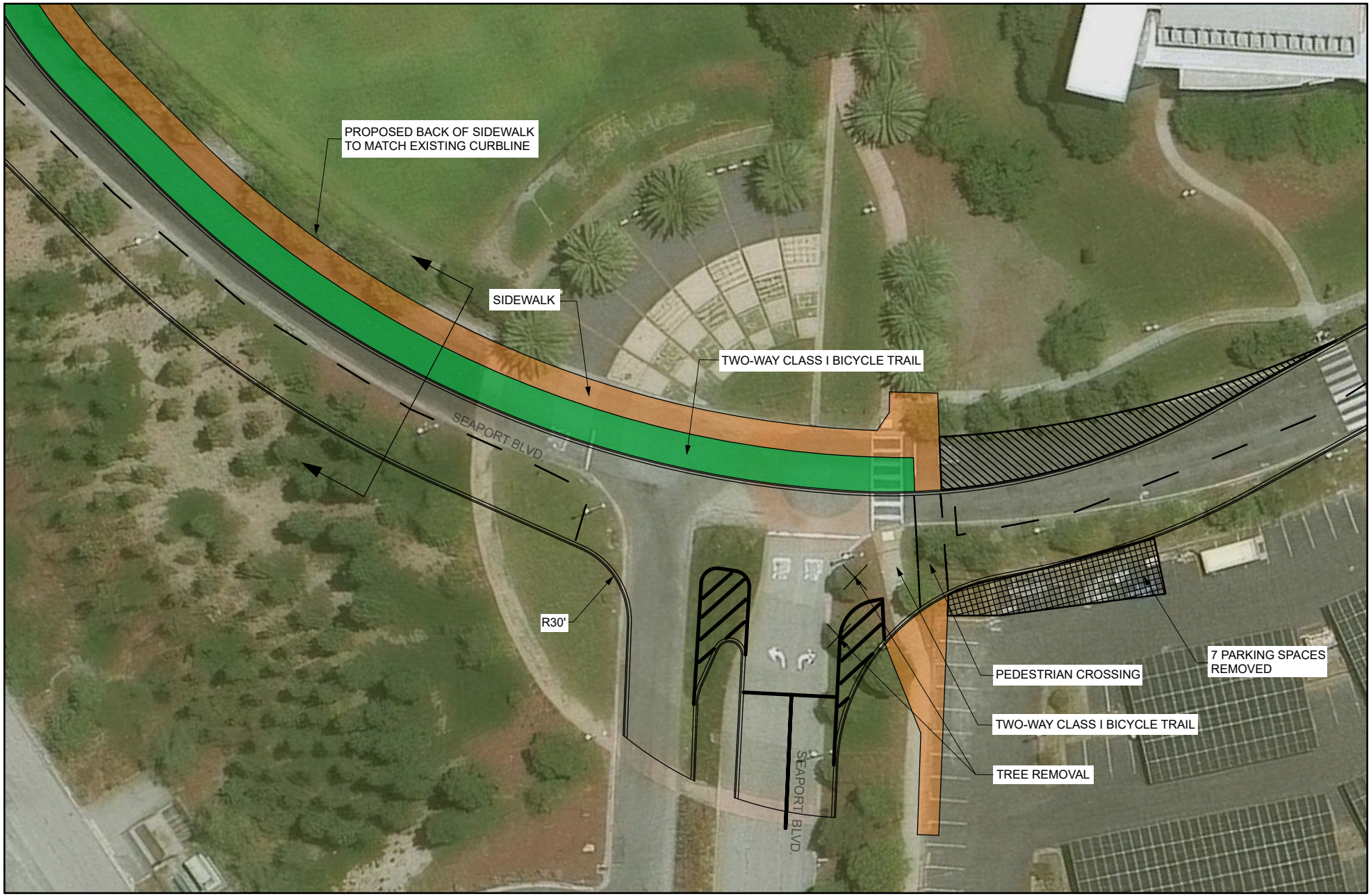


Figure 2-9

SEAPORT BOULEVARD INTERSECTION IMPROVEMENTS

2.5.1.5 Bay Trail

There is an existing segment of the Bay Trail south of the Pacific Shores Center to the east of Seaport Boulevard, along the eastern boundary of the Pacific Shores Center, and on the water's edge in the waterfront park. The trail in the waterfront park terminates approximately 350 feet east of the project site where it connects to the western public parking lot and approximately 300 feet of unpaved trail that ends at a security fence separating the Pacific Shores Center from the Port's restricted industrial areas. Under the proposed project, the unpaved trail would be paved and extended approximately 70 feet to the project site boundary near the location of the existing tide gate. The newly paved trail in the waterfront park would connect to the proposed Bay Trail within the project site. The proposed Bay Trail segment would continue along the water's edge to the ferry terminal. At the ferry terminal, the proposed Bay Trail segment would connect with the proposed Class I bicycle trail and sidewalk that would extend along the southern boundary of the project site. Although not proposed as part of the Bay Trail, the proposed Class I bicycle trail and sidewalk along the southern boundary of the site and the eastern edge of the Seaport Boulevard Corridor would conform to Bay Trail standards and would provide additional connectivity between the proposed Bay Trail terminus on the project site and the Bay Trail segment along Seaport Boulevard south of the Pacific Shores Center. See **Figure 2-5**. The existing security fence would be reconfigured to allow trail users to access the project site and prevent users from entering the Port's restricted industrial areas south of the project site. The trail on the water's edge and the Class I bicycle trail would be a new segment of the Bay Trail.

2.5.1.6 Sea Level Rise Adaptation

The City has prepared a sea level rise vulnerability assessment that identifies the City's vulnerability to future flooding with sea-level rise.[32] The study identifies that portions of the Port's shoreline present a vulnerability pathway for flooding leading to the inland properties and Seaport Boulevard. The study recommends raising the shoreline to 16 to 17 feet NAVD of 1988. Consistent with this draft recommendation and BCDC requirements for implementing sea level adaptation measures, the elevation of the 9.2 acre project site would be raised from approximately 10-feet NAVD to 17-feet NAVD. The project site boundary would be sloped to transition from the project site to the surrounding properties. The access road would be sloped to provide a gradual grade change from the existing roadway elevation to the project site. The slope would be landscaped with drought-tolerant landscaping. Along the water's edge, the landscaping would be low growing to maintain views.

2.5.1.7 Frontage Road and Relocated Railroad Tracks

Frontage Road currently terminates at the entrance to the project site. However, a controlled access gate approximately 1,300 feet south of the project site prevents it from being used to access the project site. This gated section of Frontage Road is not currently used and would be vacated.

Approximately 300 feet of the existing railroad east of the project site would also be abandoned. The track to be removed would be replaced by a similar length of track constructed south of the project site within the vacated portion of Frontage Road. The relocated tracks would connect to the existing tracks via a new switch approximately 1,300 feet south of the project site.

[32] City of Redwood City. July 2024. Sea Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

2.5.1.8 Relocated Maintenance Building

A similarly sized and constructed maintenance building would be installed to replace the existing maintenance building located adjacent to the western public parking lot for the waterfront park that would be removed to accommodate the new access road. Consistent with the existing structure, the building is assumed to be cinderblock and approximately 1,000 square feet in size and 15 feet in height. The relocated maintenance building would be within the Pacific Shores Center property at a site selected by Pacific Shores Center management based on their operational and site planning needs.

2.5.2 Future Visitor-Serving Uses

Consistent with the Port's 2020 Vision Plan, the Port is proposing a zone change to allow for future uses at the project site to expand waterfront access to the community and increase visitor-serving amenities. The proposed zone change would include the entire 9.2 acre project site and would allow a hotel and associated restaurant and retail and meeting/event facilities, and a standalone restaurant and small office that are separate from the hotel. The proposed zone change would change the project site zoning from the existing GI (General Industrial) classification to CG (General Commercial). The CG classification would permit a hotel, an administrative or professional office of less than 10,000 square feet, sales of merchandise, and commercial passenger terminal facilities. Restaurants and bars would be permitted as a conditional use. The CG classification would limit lot coverage to 60 percent and while it would allow a building height of up to 75 feet (e.g., five to seven stories), the building height at the project site would be limited to three stories (e.g., approximately 45 feet) in compliance with the project site's General Plan designation of M (Marina)[33] which is not proposed to be amended. The BCDC's San Francisco Bay Area Seaport Plan includes the project site as part of the Port Priority Use Area (PUA) for the Port of Redwood City, which requires the land to be protected and reserved for port purposes. Under the PUA, uses such as hotels and restaurants are only allowed as an interim use. The proposed project would amend the Seaport Plan to adjust the boundaries of the PUA to exclude the project site to allow the establishment of future visitor-serving uses as a long-term use.

The future visitor-serving uses would be located in the northern side of the project site, along Westpoint Slough, as shown in **Figure 2-5** and **Figure 2-6**. The uses would include hotel, restaurant, and limited office; however, the precise mix of uses and square footage is unknown and would be developed during future site planning. The analysis of potential physical environmental impacts is based on reasonable assumptions about the maximum amount of future development that could occur based on site constraints and consistency with the Port's 2020 Vision Plan, existing General Plan land use designation, and the proposed zoning classification. These assumptions are identified below.

The primary visitor-serving use would be a full-service hotel with a footprint of up to approximately 60,000 square feet with up to three stories and a maximum of 180,000 square feet of building area. The maximum 180,000 square feet is assumed to include integrated ground-floor parking, approximately 100 to 200 rooms, and related services that may include a bar/restaurant, conference/meeting rooms, a fitness center and pool, and retail uses. The project site would also accommodate up to 20,000 square feet of

[33] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

restaurant uses and up to 10,000 square feet of office space that are assumed to be single-story buildings. New utilities and utility connections would be required for all new development on-site.

The interim portable restroom facility at the ferry terminal would be replaced by a permanent facility when a sewer line is established at the project site for future visitor-serving uses. The permanent restroom is assumed to be 350 square feet. The buildings would be located a minimum of 100 feet from the water's edge.

New or expanded utilities would be required to serve the visitor-serving uses, including expanded water, electricity, and telecommunications lines and new natural gas and sewer lines. The location of utility lines and connections for the ferry terminal would be planned to avoid having to remove and replace existing utility infrastructure for construction of the visitor-serving facilities to the extent possible. However, the new and expanded utilities may include connections to utilities installed with the ferry terminal. New stormwater facilities would also be installed with the ferry terminal. Some alteration of the stormwater system installed with the ferry terminal near the visitor-serving uses may be required to adjust for the establishment of structures and additional impervious surfaces.

Additional parking on-site would be provided to accommodate the visitor-serving uses. The precise number of spaces and location required would be determined at the time specific development is proposed. It is assumed that the parking for the visitor-serving uses would be provided on the ground floor of the hotel, but it may also include some surface parking. The number of spaces provided would be consistent with City parking requirements. It is assumed that a portion of the parking would be shared parking with the ferry terminal. Consistent with the Metropolitan Transportation Commission's (MTC's) Transit-Oriented Communities (TOC) Policy (discussed in Section 3.10, Land Use), the number of parking spaces would not be more than four spaces per 1,000 square feet of commercial uses. Bicycle parking would be provided in compliance with the City's Bicycle Parking Design Guidelines[34] for long-term (secured) and short-term (unsecured) spaces per proposed land use. The precise number of short- and long-term bicycle parking required would be determined at the time specific development is proposed. Vehicle access to the visitor-serving uses would be from the one-way loop road surrounding the ferry terminal parking lot. The precise location and design of entrances and exits to the visitor-serving uses from the loop road would be determined during future site planning.

Figure 2-6 shows a conceptual rendering of the project site at full buildout based on the maximum square footage assumptions for the proposed visitor-serving uses and a conceptual building layout.

2.5.3 Project Construction

2.5.3.1 Construction Sequence

Construction of all the project elements would be a duration of approximately four years, estimated to commence in 2027 as shown in **Table 2-1**. Construction would begin with the raising of the site elevation of the 9.2 acre project site from approximately 10-feet NAVD to 17-feet NAVD. This would take approximately seven to nine months. The construction of the ferry terminal and parking lot, Bay Trail extension, the widening of the Seaport Boulevard corridor with a bicycle trail and sidewalk, other access improvements (including constructing the project site entrance, construction of the relocated railroad

[34] City of Redwood City. June 2024. Bicycle Parking Design Guidelines. Available: https://www.redwoodcity.org/home/showpublisheddocument/29028/638623564866770000.

track, and vacation of the Frontage Road segment), and demolition and relocation of the existing maintenance building would follow the raising of the site elevation. Construction of these elements is expected to take approximately 15 months. Construction of the ferry terminal, which is estimated to take four months, is expected to overlap with construction of the access improvements. Demolition and reconstruction of the maintenance building and railroad track may also occur simultaneously with construction of the ferry terminal and access improvements. The timing and duration for construction of the visitor-serving uses would be determined when the specific development is proposed; however, this analysis conservatively assumes that the construction of the visitor-serving uses would begin immediately following construction of the ferry terminal and take a period of approximately 24 months to complete.

Table 2-1 Construction Sequence

Project Component	Estimated Duration (in months)
Raising of Site Elevation	9
Ferry Terminal, Access and other Associated Improvements	15
Visitor-Serving Uses	24
Total	**48 (4 years)**

Source: CDM Smith Team, 2025.

2.5.3.2 Construction Activities

Project construction would begin with raising of the site elevation of the 9.2 acre project site to 17-feet NAVD. An estimated 124,200 cubic yards of fill would be trucked to the site from up to approximately 20 miles off-site to build up the elevation. This would result in approximately 100 truck trips per day over an estimated nine months. After placement of the fill, the raised soils would be compacted and prepared for project construction and the slope along the boundaries of the site would be stabilized. Slope stabilization would comply with the City's building code and engineering standards and recommendations contained the project-specific geotechnical investigation. The stabilization method used would vary depending on the slope angle that is established. A slope angle of 2:1 (horizontal distance that is twice the vertical distance) could be stabilized with placement of riprap along the bottom of the slope.

Construction activities associated with the ferry terminal landside improvements would include the demolition and relocation of the Pacific Shores Center maintenance building, demolition of the portion of the public parking lot within the project footprint, removal of the railroad tracks east of the project site, site preparation, installation of collection and conveyance systems for water and stormwater and distribution systems for electricity, site paving, painting/striping, installation of the passenger access pier with cover, installation of drought tolerant landscaping, and installation of other support features and infrastructure including a security gate, EV charging facilities, bicycle storage, parking lot lighting, and signage.

The improvements in the Seaport Boulevard Corridor would include demolition of existing pavement, site clearing on both sides of the roadway, relocation or protection in place of existing utilities, relocation of street lighting, site preparation, paving, striping, and the installation of trail and sidewalk lighting and landscaping. Temporary lane closures on Seaport Boulevard would be required during the construction period. This would require the use of flaggers (flag persons) to control traffic movement during periods when only one lane is in operation or would require diverting traffic to the eastern leg of the loop road to avoid areas with lane closures.

New railroad tracks would be constructed in the vacated portion of Frontage Road south of the project site to replace the tracks that would be removed, and the existing unpaved portion of the Bay Trail would be extended, graded, and paved to connect to the Bay Trail within the project site.

Construction of waterside elements would involve a combination of land-based and marine-based activities and equipment. This would include the installation of a new covered pile-supported access pier with four to ten steel or precast concrete piles with cap beams that are approximately 24- to 36-inches in diameter. The precise number of and diameter of the piles would be determined during final design following completion of the full geotechnical assessment. The project would also include the installation of a new aluminum 10-foot-wide by up to 120-foot-long gangway leading from the pier to a new 135-foot-long by 45-foot-wide float. A minimum of four 36-inch steel guide piles would be installed to moor the steel float in place. To achieve safer berthing, two additional 36-inch steel piles would be installed with donut fenders.

For some waterside elements, tug supported barges would be used to transport and stage equipment and materials. The ferry terminal would include waterside construction for in-water installation of the pilings and float and overwater work to install the float, ramps, and utilities. Waterside construction work would follow industry standard practices and federal and State agency permitting requirements. This would include permitting under Section 401 of the Clean Water Act by the U.S. Army Corps of Engineers and a Clean Water Act Section 401 Water Quality Certification issued by the San Francisco Bay Regional Water Quality Control Board.

It is anticipated that steel piles for the float guide piles would be installed with a vibratory hammer (e.g., vibrating the pile into sediment). However, in the event there is resistance to pile installation with a vibratory hammer, an impact hammer (hammering in of the pile) would be used to achieve the required depth. The access pier piles would be installed with an impact hammer. The total estimated number of piles for the float and access pier is 10 to 16 as shown in **Table 2-2** and the amount of new water surface coverage is approximately 7,000 square feet. Construction of the float and gangway would occur off-site and would be brought into the site by barge for installation. Piles are also assumed to be delivered by barge.

Table 2-2 Pile Installation for Float and Access Pier

New Structure	Pile Size & Type	No.	Location	Hammer type
Float guide piles (two with donut fenders)	36-inch steel pipe	6	Terminal Float, water	Impact hammer or vibratory hammer
Access pier and pier foundation	24- to 36-inch precast concrete or steel piles	4 – 10	Pier, water	Impact hammer or vibratory hammer

Source: CDM Smith Team, 2024.

As discussed in **Section 2.2**, maintenance dredging of the Redwood Creek USACE channel would continue to occur under existing USACE permits to an authorized depth of -30 feet MLLW and no additional dredging of the channel would be required for the proposed project. A small amount of dredging from the channel to the ferry terminal and at the ferry berths would be required during construction of the ferry terminal. The amount of dredging is estimated at up to 11,500 cubic yards to approximately -12 to -15 feet MLLW. Dredge material would be removed by barges and taken to an off-site disposal facility for beneficial reuse.

Construction of the visitor-serving amenities would include many of the aforementioned landside construction activities, including site preparation, installation of utilities, site paving, painting/striping, and installation of drought tolerant landscaping and lighting. Additional activities would include installation of wastewater collection and conveyance systems and connection to the existing sanitary sewer system, establishing a driveway connection with the ferry terminal access roadway, removal of the existing Shell Unloading Wharf parallel to the shore along Westpoint Slough, and building construction.

Federal and State permits and regulations would be followed during project construction activities to protect special-status species and their aquatic habitats as required by permits and regulations. This would include, but not be limited to, the stormwater pollution prevention plan and erosion and sediment control plan required under the National Pollutant Discharge Elimination System program, an oil spill prevention and control plan, and a construction debris management plan. The oil spill prevention and control plan would specify restrictions and procedures for fuel storage location, fueling activities, and equipment maintenance locating fueling stations with the intent of protecting wetlands and other sensitive habitats. Additional information on required permits and regulations to which the proposed project would adhere can be found in Section 1.5 in Chapter 1, Introduction, of this Draft EIR and throughout Chapter 3, particularly Section 3.3, Biological Resources, and Section 3.9, Hydrology and Water Quality.

Hauling would occur in compliance with Article VI, Truck Traffic Routes, of the Redwood City Municipal Code. Consistent with Article VI, trucks entering or departing the City would use a designated truck traffic route, including U.S. Route 101, and access the project area using the nearest streets from the designated truck route (e.g., East Bayshore Road and Seaport Boulevard). During raising of the site elevation and construction of the ferry terminal, truck traffic would primarily use Frontage Road to access the project site, except as needed for the construction activities associated with the widening of the Seaport Boulevard loop road. While construction of the ferry terminal at the project site would largely be completed following the vacation of a portion of Frontage Road and the relocation of the railroad tracks, any truck traffic occurring once the vacated portion of Frontage Road is closed would use the Seaport Boulevard loop road to access the project site. During construction of the visitor-serving uses, trucks would need to use the western leg of Seaport Boulevard loop road to access the project site. This would also be the most direct vehicle route for ferry terminal visitors. Ferry visitors could also access the ferry terminal from the eastern leg of the loop road, subject to coordination with the Pacific Shores Center. Information on the types and numbers of construction equipment is presented in Sections 3.2, Air Quality, and 3.11, Noise and Vibration.

Construction activities would typically occur during daytime hours, between 7 AM and 7 PM, Monday through Friday, and between 8 AM and 5 PM on Saturdays. Should nighttime construction activities be necessary (e.g., to perform utility connections), on-site lighting would be required. The lighting would include floodlights focused on the work area and not onto adjoining properties.

2.5.4 Project Operations

2.5.4.1 Ferry Operations

San Francisco Bay Ferry's ferry fleet is composed primarily of diesel-powered catamaran-style ships that accommodate between 225 and 445 passengers. The ferry fleet uses renewable diesel fuel. Newer vessels are compliant with U.S. Environmental Protection Agency's (USEPA) Tier 4 emission standards which

require the cleanest combustion engines and are equipped with diesel particulate filters. Older vessels are being upgraded under WETA's Commercial Harbor Craft Alternative Control of Emissions Plan[35] to achieve Tier 4 standards with diesel particulate filters where feasible or have been identified for replacement with newer Tier 4 compliant vessels or electric vessels. The vessel type proposed for the Redwood City service connecting to San Francisco and/or connecting to Oakland is a 320-passenger capacity vessel. The 320-passenger vessels are currently operating with Tier 4 main engines.[36] The commute time (excluding passenger loading/unloading time) would be 71 minutes for the Oakland to Redwood City route and 61 minutes for the San Francisco to Redwood City route. The initial service is proposed as a commute-period service, providing three to four trips during both AM and PM peak periods on weekdays. This service would operate approximately 6 AM to 10:30 AM in the mornings and approximately 4 PM to 9:30 PM in the evenings. Depending on demand, midday service to either San Francisco or Oakland, and weekend service to San Francisco may be added. Future plans might also involve extending the service to include special event services to San Francisco on the weekends, similar to what San Francisco Bay Ferry offers on existing services. WETA's 2050 Service Vision and Expansion Policy identifies a minimum of nine daily peak-direction weekday trips for new or expanded routes. The future Redwood City service would align with these service design standards as demand, operating resources, and funding allow.

This EIR assumes that full buildout service would be implemented and include all day service to San Francisco and to Oakland that has a higher frequency of service during morning and evening peak periods on weekdays, and weekend day and up to 15 days of special event service for the San Francisco route. The transportation analysis assumes 18 weekday daily services, 12 weekend daily services, and 2 services on a special day. To address possible future increases in service, the analysis also assumes an up to 20 percent increase in services for weekdays and weekends (see Appendix H, Transportation Study Report, of this Draft EIR). Actual service would depend on demand and would be subject to San Francisco Bay Ferry's standard operating practices. The full buildout service would be phased-in over time to match demand and available operating resources. For example, midday and weekend service may be introduced after commute-period service is established. In addition, either the San Francisco or Oakland component of the service could be deferred, again depending on demand and available operating resources.

San Francisco Bay Ferry would require eight crews with a minimum of four people per crew per weekday to operate each route. These crews would work eight-hour shifts. The weekend San Francisco route would require four crews, working ten-hour shifts. The ferry terminal would not be staffed. Passengers would pay fares with Clipper cards or on board the vessel. Ferries would idle at the berth during 10-minute embarking/disembarking. Vessels would dock overnight and on weekends at the WETA Central Bay Operations and Maintenance Facility (CBOMF) in Alameda and may occasionally be berthed overnight or on weekends at the Redwood City terminal. WETA's responsibility for managing waterside infrastructure would be negotiated through future project operating agreements.

Vessels would typically be traveling at 35 knots while transiting the Bay and would slow to 7 knots within Redwood Creek Channel to protect both non-motorized water users as well as marine and land species

[35] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

[36] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

and their habitat. To further minimize the wake that could affect the adjacent marsh islands, the transition in vessel speed would occur when the ferry is offshore of Bair Island's northeastern point.[37] Specifically, this transition would occur at the position of USCG channel visual aids referred to as Redwood Creek Lights 5 and 6. On Redwood Creek, wake enforcement would be the responsibility of the USCG in conjunction with the Redwood City Police Department.

Local shuttle service would provide public transit to and from the ferry terminal. The existing Seaport Center Caltrain shuttle that operates between the Caltrain Redwood City Station and the Pacific Shores Center and Seaport Center would serve the project site. The shuttle would provide connectivity to downtown Redwood City and other transit connections including SamTrans Redwood City Transit Center that is co-located with the Caltrain Redwood City Station. Several larger employers in the area operate private shuttles for employees to and from transit centers, which could also provide connection to the ferry terminal either as a ferry terminal stop or from a connecting location. There are multiple transit connections from the San Francisco Ferry Terminal and the Jack London Square Ferry Terminal in Oakland that would provide local and regional access to ferry passengers embarking and disembarking in San Francisco and Oakland. This includes Muni Metro bus service in San Francisco and AC Transit, Amtrak, and Capital Corridor connections in Oakland.

2.5.4.1.1 Oakland Service

The Oakland route would be a round trip service between the Jack London Square Ferry Terminal and Redwood City, with an approximate one-way running time of 71 minutes. The service would depart Oakland and travel westbound out of the estuary before heading south to Redwood City. The route would travel through established navigational channels in the inner San Francisco Bay and would turn southwest to enter the navigational channel in Redwood Creek. The route would be reversed in the opposite direction, also traveling through the established navigational channels. Two ferry boats would be deployed for this service. **Figure 2-1** illustrates this route.

2.5.4.1.2 San Francisco Service

The San Francisco route would be a round trip service between the San Francisco Ferry Terminal and Redwood City. The one-way running time from the San Francisco Ferry Terminal to the Redwood City Ferry Terminal would be approximately 61 minutes. After departing San Francisco, the route would travel through established navigational channels in the inner San Francisco Bay and would turn southwest to enter the navigational channel in Redwood Creek. The route would be reversed in the opposite direction, also traveling through the established navigational channels. Two ferry boats would be deployed for this service. **Figure 2-1** illustrates this route.

2.5.4.1.3 Ridership

Ferry ridership is based on estimates made in the Redwood City Ferry Business Plan[38] that was prepared in June 2022 for the years 2019 and 2040 and adjusted to the years 2023 and 2040 while adjusting for

[37] The transition point at Redwood Creek Lights 5 and 6 would be where inbound vessels slow in speed from 35 knots to 7 knots and outbound vessels would increase in speed from 7 knots to 35 knots.

[38] Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan. Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf.

recent post-Covid pandemic population trends,[39] economic trends,[40] and travel trends.[41] In addition, the ferry transit times used in the Redwood City Ferry Business Plan, were increased by six minutes to account for a speed reduction to reduce ferry wake. The increased travel time has lowered the ridership estimates. The adjusted daily total ridership and per ferry ridership by service route in the years 2023 and 2040 are shown in **Table 2-3**.

Table 2-3 Ferry Terminal Average Daily Ridership and Person Trips

Service Route	Year 2023 Average Daily Ridership			Year 2040 Average Daily Ridership		
	Wkdy. Total (Per Ferry Trip)	Wknd. Total (Per Ferry Trip)	Special Events Total (Per Ferry Trip), {Per Event}	Wkdy. Total (Per Ferry Trip)	Wknd. Total (Per Ferry Trip)	Special Events Total (Per Ferry Trip) {Per Event}
Oakland – Redwood City	640 (107)	N/A (N/A)	N/A (N/A)	1,780 (297)	N/A (N/A)	N/A (N/A)
San Francisco – Redwood City	830 (104)	730 (73)	90 (45) {200}	1,910 (239)	1,680 (168)	210 (105) {340}

Sources: City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://www.redwoodcity.org/home/showpublisheddocument/22921/637442616488470000; Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf; Appendix H of this Draft EIR.
Key: N/A = Not Applicable, Wkdy. = Weekday, Wknd. = Weekend

2.5.4.2 Safety

As previously described, the SF-VMAP mutual assistance plan would be amended to incorporate the Redwood City ferry service. By participating in the SF-VMAP mutual assistance plan, the vessels used on the ferry route would be included in the list of participating boats/routes that may be called upon to assist in the evacuation of another stricken ferry vessel and would also receive aid if under the mutual assistance plan should it be needed. The ferry vessels serving the Redwood City routes would conform with SF-VMAP and San Francisco Bay Ferry emergency management protocols and safety requirements, including crew member participation in regular drills, coordination with local authorities, and the provision of onboard safety gear. This includes equipping all ferries with USCG-approved inflatable buoyant apparatus (IBA) life rafts that could be deployed in a water emergency to provide a floatation device for stranded passengers and crew. Each IBA generally accommodates between 15 to 30 people and, consistent with WETA requirements, there would be enough IBAs on board to accommodate a minimum of 30 percent of the vessel's maximum passenger capacity (e.g., a 320-passenger ferry vessel would have a minimum IBA capacity of 90 passengers). Other ferries operating in the Bay also carry IBAs and, if operating in the vicinity of a stricken vessel, would provide aid and additional IBA capacity consistent with SF-VMAP protocols. Under the proposed project, the Port would also provide IBA(s) that would be stored on land in an existing

[39] As per the California Department of Finance, the population estimates for San Francisco, Oakland, and Redwood City in 2023 are lower than that in 2020 by about 5 percent on average, due to net migration to other geographical regions in the U.S.

[40] As per CBRE, a global commercial real estate services firm, the office space vacancy for the San Francisco market has increased from 4.0 percent in 2019 to 35.6 percent in 2023. During this same period, the office space vacancy for the Oakland market has increased from 8.0 percent in 2019 to 20.6 percent in 2023.

[41] As per Bay Area Council Employer Surveys, the remote work eligible jobs commuted 4.4 days per week on average under pre-pandemic (2019) conditions; this reduced to 3.0 days per week on average by November 2023, where the remote work eligible jobs formed 51 percent, 40 percent, and 47 percent of the total jobs in San Francisco, Oakland, and Redwood City, respectively.

fenced enclosure adjacent to the Redwood City Fire Department's fire boat for use by the Redwood City Fire Department and/or other responding agencies. The IBAs could quickly be loaded into the fire boat and deployed to assist ferry passengers should a ferry be stricken south of the San Mateo-Hayward Bridge. The additional IBAs available to the Fire Department would ensure 100 percent IBA capacity is available to accommodate one 320-passenger ferry vessel. The Port would replace the IBAs when required on a rotating basis, consistent with USCG and/or manufacturer guidelines.

2.5.4.3 Zero Emission Operations

To comply with California Air Resources Board requirements and to be a leader in the sector, WETA is preparing for a phased transition of its ferry fleet from diesel operated ferries to ZEVs. In January 2023, WETA released a Blueprint for Zero Emission Vessel Transition to address opportunities and challenges for the transition to ZEVs.[42] The Blueprint identifies four phases for the transition of both terminals and vessels based on the feasibility of transition. The first three phases are transition of short- to medium-length routes that were studied in detail in the Blueprint. The fourth phase is the transition of longer, more energy intensive routes to zero-emissions, which is currently infeasible. Phase 4 includes the proposed Redwood City service, Carquinez, and Vallejo. The future transition of Redwood City and the other Phase 4 routes will require further planning and technology to meet the larger power requirements to maintain the required level of service. For the Phase 4 routes, the use of alternative fuels (e.g., liquid hydrogen or methanol) or other future technologies may be considered for the future ZEVs. ZEVs are also addressed in WETA's 2050 Service Vision and Expansion Policy,[43] which identifies that ferry system expansion and enhancement projects would deploy ZEVs, if feasible. If ZEVs are not feasible, system expansion and enhancement projects would use existing vessels in the San Francisco Bay Ferry fleet. Once the existing vessels reach the end of their useful life, all current vessels in the San Francisco Bay Ferry fleet would be replaced with ZEVs.

The useful life of the vessels that would operate on the Redwood City routes is approximately 25 years. Thus, at or within that 25-year timeframe, the Redwood City routes are expected to be served by ZEVs in compliance with WETA policies. However, because there is no feasible ZEV technology currently available for ferries to serve the proposed Redwood City routes, the use of diesel ferries is assumed for ferry operations over the life of the project for purposes of this environmental analysis to present a conservative evaluation of the environmental impacts of the proposed project. This assumes compliance with USEPA's Tier 4 emission standards and use of renewable diesel, consistent with current WETA operations. Where applicable, a future conversion to ZEV technology is addressed qualitatively in the environmental evaluation in this EIR; however, because the technology that may be used is not, and cannot, be known at this time, no specific technology is identified or analyzed. Regardless, the ferry terminal design would comply with WETA standard design recommendations for accommodating electric vessels in the future, including the inclusion of shoreside and float electrification infrastructure, to facilitate the transition to electrification should that be the future technology used to transition the Redwood City route to ZEVs.

[42] WETA. January 2023. Blueprint for Zero Emission Vessel Transition. Available: https://sanfranciscobayferry.com/wetas-transition-to-zero-emission-ferries/.

[43] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

2.5.4.4 Maintenance

Ferry terminal maintenance activities would include security, landscaping, general maintenance, portable toilet cleaning and maintenance, and electricity, water, telecommunications, and trash service. Maintenance dredging at the ferry terminal, if required, would occur every 2-10 years depending on the specific needs. This would occur independent of maintenance dredging of the Redwood Creek USACE channel that is executed under the existing USACE permit.

WETA is responsible for waterside facilities at terminals, such as the maintenance and rehabilitation of floats. The Port is responsible for landside maintenance. Maintenance of the ferry vessels would occur at the WETA CBOMF in Alameda. Maintenance of all WETA ferry vessels at CBOMF was addressed in the Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility,[44] that was part of the transbay ferry expansion identified in the 2002 IOP[45] and evaluated in the 2003 Program EIR,[46] which, as identified in **Section 2.2**, included ferry service to and from Redwood City.

2.5.5 Visitor-Serving Uses

The operation of visitor-serving uses would result in up to approximately 400 new employment opportunities associated with the hotel and related facilities, restaurant, and the limited office uses. The hotel facility would be open 24 hours per day, 365 days per year. The restaurant and the limited office space uses would have more limited hours than the hotel.

2.6 Intended Uses of the EIR

The Port is the entity responsible for CEQA review for the project and will consider approving the proposed project, or an alternative, and certifying the EIR. As discussed in greater detail in Chapter 1, the proposed project would require various permits or approvals from other federal, State, and local agencies with jurisdiction over portions of the proposed project or over resources that could be affected. Those agencies may rely on the EIR in a review capacity or as a basis for issuance of a permit or other approval.

[44] WETA. 2011. Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility. Available: https://www.redwoodcityport.com/ferry.

[45] WETA (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[46] WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

Chapter 3
Environmental Analysis

3.0.1 Introduction

This chapter describes the structure and format of the analysis provided for each of the 15 environmental resource areas addressed herein and defines the terminology used in characterizing the level of significance for each impact and, where appropriate, associated mitigation.

The following 15 resource areas addressed in this chapter were determined by the Port of Redwood City to require further evaluation.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise and Vibration
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems

For those resource areas where it was determined that no impact would occur (i.e., agricultural/forest resources, mineral resources, population and housing, wildfire), an explanation of the no impact determination is provided in Chapter 5, Other CEQA Considerations. Additionally, a brief summary of specific issues under the resource areas listed in bullets above that were determined to have no impact and are thus not further evaluated are identified in Chapter 5. Further information about the resource areas and specific issues under resource areas that were determined to have no impact is also contained in the Notice of Preparation/Initial Study (NOP/IS), included as Appendix A of this Draft EIR.

The analysis of each resource area includes the following components:

- Introduction – provides an introduction to the resource area analysis.
- Methodology – identifies how potential impacts on a resource area were determined.
- Existing Conditions
  - Regulatory Setting – contains an overview of the federal, State, regional, and local laws, regulations, and plans and policies relevant to each resource area. Development of the proposed project must comply with various federal, State, and local regulations, which help shape the way development occurs on the project site. Any potential inconsistencies would be disclosed in the regulatory setting or related impact analyses.

  - Environmental Setting – describes current conditions with regard to the resource area reviewed. CEQA Guidelines Section 15125(a) states that "An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives." This is discussed further below in **Section 3.0.2**.

- Thresholds of Significance – presents the criteria against which the significance of impacts is judged for the resource area. In general, the thresholds of significance used in the analysis of proposed project impacts reflect guidance provided in Appendix G of the CEQA Guidelines.
- Project Impacts – evaluates the construction and operation of the ferry terminal and associated improvements and construction and operation of the future visitor-serving uses. The project impact evaluation states whether a given project impact meets or exceeds a threshold of significance (using terms detailed below, under **Section 3.0.3**) prior to mitigation. If mitigation is recommended for a particular impact, the EIR will then determine whether the impact, once mitigated, would remain significant or would be reduced to a less than significant level. For purposes of determining significance, impacts were compared to the environmental baseline conditions (see **Section 3.0.2** below.) Cumulative impacts are also addressed, including whether those cumulative impacts are significant and, if so, whether the proposed project's incremental contribution to that impact is cumulatively considerable. The future visitor-serving uses are analyzed at a programmatic level. As such the analyses focus on program-wide issues relative to the proposed zone change. Subsequent projects applied for within the zone will be evaluated to determine if they fall within the scope of analysis in this Draft EIR or if additional site-specific environmental review will be required, consistent with CEQA Guidelines Section 15168(c).
- Mitigation Measures – lists the mitigation measures that are recommended to reduce or avoid a significant impact, if feasible.
- Significant Unavoidable Impacts – identifies significant unavoidable impacts, if any, to the resource area that would cause a substantial adverse effect on the environment that could not be reduced to a less than significant level through any feasible mitigation measure(s).

3.0.2 Baseline Physical Conditions

For each resource area in this EIR, the baseline physical conditions used to determine whether an impact is significant are identified in the Environmental Setting. Section 15125(a)(1) of the CEQA Guidelines states that "[g]enerally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published…" Section 15125(a)(1) further identifies that "[w]here existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record."

The NOP for the proposed project Draft EIR was published on May 1, 2024. However, at the time the NOP was published, the 9-acre ferry terminal site (project site) was under a lease agreement[1] between the Port and Harbor Sand & Gravel (currently Cemex Construction Materials [CEMEX]), and it was occupied with materials related to concrete stockpiling and had an open vegetated drainage ditch. The lease requires the leaseholder to remove all landside improvements, including a storage building, equipment and machinery, and stockpiles, and grade the site to a height of approximately 10-feet North American Vertical Datum (NAVD)[2] prior to vacating the property. The leaseholder is also required to install a conveyance pipe and fill the stormwater ditch on the eastern edge of the site. Given that the site is required to be cleared under the lease agreement, as evaluated under a previous CEQA evaluation,[3] the proposed project would be implemented on a cleared and graded site.

Therefore, in most cases, existing conditions and data specific to 2024 do not provide the most accurate picture of the proposed project's impacts and rather, pursuant to Section 15125(a)(1) of the CEQA Guidelines, existing conditions are better referenced by conditions expected when the project becomes operational. Thus, baseline at the time of project operations is used to evaluate impacts of the proposed project. As discussed in greater detail in Section 3.14, Transportation, and Appendix H of this Draft EIR, the year 2023 is used for baseline conditions analysis consistent with the City's 2023 Transportation Impact Fee Study.[4] Additional details are provided in the individual resource sections.

3.0.3 Impacts and Mitigation

For each potential impact of the proposed project, this Draft EIR applies significance criteria specific to the resource area in question. These criteria establish a significance threshold which, if exceeded, triggers the need for mitigation of the impact under review. The following terms are used to describe each impact and, where significant impacts are determined, how mitigation measures are to be applied:

- No Impact – Designation of no impact is given when the proposed project does not apply to the impact category, or would not create an impact. In addition, no impact is identified if no changes in the environment are expected.
- Less Than Significant Impact – A less than significant impact is identified when the proposed project would cause no substantial adverse change in the environment (i.e., the impact would not reach the threshold of significance).
- Significant Impact – A significant impact would create a substantial adverse change in any of the physical conditions within the area affected by the proposed project. Such an impact would exceed the applicable significance threshold established by CEQA prior to application of mitigation.

[1] Agreement between City of Redwood City acting through its Board of Port Commissioners and Harbor Sand & Gravel, Inc. July 1, 2002. Agreement Harbor Sand & Gravel (9.2 Acres Parcel).
[2] NAVD is established for vertical control surveying in the U.S.
[3] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.
[4] City of Redwood City. December 2023 (update). Redwood City Transportation Impact Fee Study. Prepared by Economic & Planning Systems, Inc. and Hexagon Transportation Consultants, Inc. Available: https://www.redwoodcity.org/home/showpublisheddocument/27445/638388322844730000.

- Less Than Significant Impact with Implementation of Mitigation – A significant impact would occur; however, the application of mitigation would avoid or lessen the impact, reducing it to a less than significant level. However, if proposed mitigation measures are not adopted, impacts would remain significant and unavoidable.
- Significant Unavoidable Impact – Per Section 15126.2(c) of the CEQA Guidelines, a significant unavoidable impact is a project-related substantial adverse effect that cannot be reduced to a less than significant level through any feasible mitigation measure(s).
- Mitigation – Mitigation refers to enforceable, legally binding measures that would be implemented to avoid or lessen significant impacts. Mitigation includes:
  - Avoiding the impact completely by not taking a certain action or parts of an action;
  - Minimizing the impact by limiting the degree or magnitude of the action and its implementation;
  - Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
  - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or
  - Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation measures are proposed as a condition of project approval and would be monitored to ensure compliance and implementation through a Mitigation Monitoring and Reporting Program (MMRP) to be adopted by the Port, as the entity responsible for CEQA review.

As further discussed in Chapter 4, in accordance with Section 15126.6 of the CEQA Guidelines, three alternatives (including two No Project alternatives) were selected and carried forward for further consideration in this Draft EIR to evaluate whether such alternatives would avoid or substantially reduce any of the significant environmental impacts associated with the proposed project that are identified in the following sections of this chapter.

3.0.4 Cumulative Impacts

CEQA requires that EIRs analyze cumulative impacts. As defined in Section 15355 of the CEQA Guidelines, cumulative impacts are the incremental impacts of a proposed project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts may be individually minor, but collectively significant. In accordance with Section 15130 of the CEQA Guidelines, this EIR discusses cumulative impacts of the proposed project when the proposed project's incremental effect is cumulatively considerable. As defined by Section 15065 of the CEQA Guidelines, "cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects."

CEQA Guidelines Section 15130(b)(1) states that the identification of reasonably foreseeable growth may be based on either:

- A list of past, present, and probable future projects producing related or cumulative impacts; or

- A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impacts analysis completed for the proposed project is based on the adopted growth projections approach that considers the growth projected to occur in the vicinity of the project site and San Mateo County based on the growth projections set forth in the Association of Bay Area Governments' (ABAG) Plan Bay Area 2050+.[5] The analysis also considers other planning documents relevant to the project and the region, such as the Port's 2020 Vision Plan[6] and the City's General Plan[7] as described in **Section 3.0.4.2**. Additional details on resource-specific cumulative methodology are provided in the individual resource sections in this chapter.

3.0.4.1 Regional Projections

The projected growth pattern for San Mateo County was derived from estimations contained in the San Mateo County Factsheet[8] for Plan Bay Area 2050+, published by ABAG in March 2026 and incorporated herein by reference, which spotlights the strategies, investments, and outcomes for San Mateo County. **Table 3-1** provides a summary of household and job growth data in the San Mateo County Factsheet.

Table 3-1 ABAG Plan Bay Area 2050+ San Mateo County Factsheet: Growth Pattern, San Mateo County

	2023	2050	% Growth
Households	288,000	394,000	+37%
Jobs	416,000	593,000	+43%

Source: Metropolitan Transportation Commission and Association of Bay Area Governments. March 6, 2026. Final Plan Bay Area 2050+ San Mateo County Factsheet. Available: https://planbayarea.org/sites/default/files/documents/pba50_plus_san_mateo_county_fact_sheet.pdf?cb=7d7bef44.

The 2023-2031 Housing Element of the City's General Plan incorporated herein by reference also contains ABAG estimated population growth projections for the City. ABAG forecasts continued population growth through 2040, with the population projected to grow by 20 percent between 2020 and 2040. **Table 3-2** provides a summary of this data presented in the Redwood City General Plan 2023-2031 Housing Element.

Table 3-2 Projected Population Growth: Redwood City General Plan

Jurisdiction	2010	2020	2040	% Change 2010-2020	% Change 2020-2040
Redwood City	76,815	86,754	103,940	12.9%	19.8%
San Mateo County	718,451	773,244	916,590	7.6%	18.5%

Source: City of Redwood City. 2023-2031 Housing Element, City of Redwood City. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/28334/638484500539830000.

[5] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[6] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[7] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[8] MTC and ABAG. March 6, 2026. Final Plan Bay Area 2050+ San Mateo County Factsheet. Available: https://planbayarea.org/sites/default/files/documents/pba50_plus_san_mateo_county_fact_sheet.pdf?cb=7d7bef44.

3.0.4.2 Planning Documents

3.0.4.2.1 Plan Bay Area 2050

Plan Bay Area 2050, adopted in October 2021, was the prior adopted 30-year long-range plan for the San Francisco Bay Area, including Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties. This plan provides strategies, public policies, and investments for housing, economic growth, the environment, and transportation to make the region more resilient and equitable. These strategies direct almost $1.4 trillion in investment in the region. Transportation strategies are focused on maintaining and optimizing the existing system, creating safe and healthy streets, and building a next-generation transit network, including investments in bus rapid transit and light rail. Environmental strategies applicable to the proposed project include adapting to sea level rise, modernizing and expanding parks and recreation facilities, and expanding transportation demand management initiatives to discourage solo driving. More detail is provided in Section 3.10, Land Use.

3.0.4.2.2 Plan Bay Area 2050+

Plan Bay Area 2050+,[9] adopted in March 2026, is the current long-range plan and a limited and focused update of the Plan Bay Area 2050 adopted in 2021. The plan includes 35 strategies categorized under four elements: transportation, housing, the economy, and the environment. Plan Bay Area 2050+ provides a framework for a future vision of the region that includes strategies for public investment and policy reform; forecasts and assumptions for the region for population and job growth, sea level rise, and other trends; and identifies areas within the region where housing and job growth should be focused.

Plan Bay Area 2050+ includes the following supplemental reports:

Forecasting and Modeling Report[10] which is a guide to where future growth and jobs would be focused that identifies four Growth Geographies categories. The Growth Geographies Framework presented in this report identifies each category and shows their locations on a county-wide map. The Growth Geographics map identifies a large portion of the City west of Highway 101 as a Priority Development Area, which are places nominated by local governments that are served by transit and planned for new homes and jobs at densities necessary to support transit service. The Growth Geographics map identifies the area around Seaport Boulevard immediately south of the project site as a Transit-Rich Area, which are places near rail, ferry, or frequent bus service that were not already identified as Priority Development Areas.

Transit 2050+[11] and ***Transportation Project List Report***[12] are parallel transportation planning efforts prepared in conjunction with Plan Bay Area 2050+. Transit 2050+ is a long-range plan for maintaining and improving the regional transit network that directly informs the Plan Bay Area 2050+ transit strategies. The Transportation Project List Report, a component of Plan Bay Area 2050+, identifies programs to support regional transit and specific transportation improvement projects, including transit, highways,

[9] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[10] MTC and ABAG. March 2026. Plan Bay Area 2050+ Forecasting and Modeling Report. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_Forecasting_and_Modeling_Report.pdf?cb=cdfb081a.

[11] MTC. March 2026. Transit 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Transit_2050_Plus_Report.pdf?cb=29b3ff08.

[12] MTC and ABAG. March 2026. Plan Bay Area 2050+ Transportation Project List Report. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_Transportation_Project_List_Report.pdf?cb=9ba7b9c8.

bicycle and pedestrian facilities, and climate and resilience-related strategies. Together, these documents describe near- and long-term transportation investments envisioned over approximately the next 25 years. The programs and projects are listed under primary strategies such as operating and maintaining the existing system; improving the rider experience through transit network integration; and enhancing transit frequency, capacity, and reliability. Specific programs identified within the project vicinity, including this project's proposed ferry service to Oakland, include:

- Funding to implement new ferry service between Oakland and Redwood City, including a new terminal in Redwood City, with an identified opening period of 2036 – 2050.
- Interchange improvements on US-101 at State Route (SR)-84 (Woodside Road) with identified opening period of 2025 -2035. This includes widening Woodside Road, ramp reconstructions, new flyover ramps to Veterans Boulevard and new bicycle and/or pedestrian facilities.
- Funding to enhance, modernize, and/or expand existing transit centers, stations, and stops, including the Redwood City Transit Center. This Program implements initiatives to improve or expand connectivity and access to bus, rail, and ferry stations and stops through reconstruction, modernization, and/or expansion of bus transit centers, rail stations, and ferry terminals.
- Funding to implement new express bus service between Redwood City and Union City. Improvements include adding a new busway between Menlo Park and Redwood City along the Dumbarton rail right of way. Improvements would be implemented starting in 2025 to 2035.

Resilience Project List Report[13] is intended to delineate specific investments as a resource to help the Bay Area adapt to climate change. The list is a component of Plan Bay Area 2050+ and includes the following projects relevant to Redwood City:

- Redwood City Emergency Preparedness project to elevate land to address sea level rise; improvements would be implemented beginning in 2025 to 2035.
- Redwood Shores Protection and Enhancement Project; improvements would include implementing levees and dikes and restoration, rehabilitation, and enhancement work, and would be implemented beginning in 2025 to 2035.
- Elevation of land at the Port of Redwood City to address sea level rise; improvements would be implemented beginning in 2036 to 2050.

3.0.4.2.3 WETA 2050 Service Vision and Expansion Policy

The Water Emergency Transportation Authority (WETA) 2050 Service Vision and Expansion Policy,[14] adopted in May 2024, describes WETA's vision for the ferry system, the criteria for evaluating routes that enter the project development pipeline, and the roles, responsibilities, and financial commitments of WETA and its partners in enhancing and expanding ferry service over the next 25 years. It includes the goal to grow its core network of terminals and routes, including increasing route frequency and route expansion, including new Redwood City routes. For additional information, see Section 3.10, Land Use.

[13] MTC and ABAG. March 2026. Plan Bay Area 2050+ Resilience Project List Report. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_Resilience_Project_List_Report.pdf?cb=c80eb11b.

[14] Water Emergency Transportation Authority (WETA). May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

3.0.4.2.4 Port of Redwood City 2020 Vision Plan

The Port has prepared a long-term Port 2020 Vision Plan[15] with key objectives to maximize land use, diversify maritime and commercial business efforts, and protect the environment. These objectives are stipulated under a series of performance measures with the goal of strengthening the Port's impact on the region's economy and quality of life. The document provides scope, objectives, methodology, and parameters for future development within the Port's jurisdiction. The 2020 Vision Plan identifies the project site as a ferry terminal area and suggests linking the ferry service to other commercial/recreational activities and building economic opportunities for downtown Redwood City and the Port's commercial recreational marina area. More detail is provided in Section 3.10, Land Use.

3.0.4.2.5 Redwood City General Plan

The Redwood City General Plan[16] provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan establishes policies to guide development and conservation through 2030. The City's General Plan includes the following elements: built environment, housing, building community, public safety, and natural resources.

Key policies and strategies of the General Plan relevant to the proposed project include ensuring efficient and productive use of Port lands, preparing a plan to accommodate a passenger ferry terminal at the Port, maintaining railroads for transportation, and requiring that new projects integrate seamlessly into surrounding development. More detail is provided in Section 3.10, Land Use.

3.0.4.3 Cumulative Impacts Study Area

Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental resource area. Therefore, the cumulative study area for each individual environmental resource area may vary. For example, a cumulative land use impact generally may only affect the compatibility of uses within the vicinity of the project site, while a cumulative air quality impact may affect the entire Bay Area region. The specific boundaries and the projected growth within those boundaries for the cumulative study area of each environmental resource area are identified in the applicable environmental resource area sections (Section 3.1 through Section 3.15).

[15] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[16] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Section 3.1
Aesthetics

3.1.1 Introduction

This section describes the existing aesthetics and visual resources in the project area as viewed by the general public, as well as views of and views from the project area to the surrounding Redwood Creek waterfront. This section also describes the regulatory framework and policies related to aesthetics that would apply to the project. Impacts related to the blocking of views, addition of light and glare, and changes to the visual character of the project area are addressed. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

As discussed in the Initial Study, provided in Appendix A, Notice of Preparation/Initial Study (NOP/IS), of this Draft EIR, the project would not substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. Consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 15128, this analysis is available for review in Appendix A, and it is also summarized in Chapter 5, Other CEQA Considerations. Accordingly, analysis of this threshold is not repeated here.

3.1.2 Methodology

The proposed project's impacts relative to local valued views available to the general public, visual character and visual quality, and light and glare are discussed individually below. These analyses consider effects on the existing visual environment based on the existing visual context, a conceptual site plan, design of ferry terminals operated by WETA, maximum building square footages and heights of the future visitor-serving uses and the replacement maintenance building. Other project components would occur primarily along existing rights-of-way and an existing trail segment in the waterfront park.

Scenic Vistas

The analysis of impacts on scenic vistas considers whether a scenic vista would be substantially blocked, diminished, or altered as a result of the proposed project. Whether an alteration of views is "substantial" depends on the extent to which the proposed project may obstruct or interfere with visual access to visual resources (e.g., the degree to which a view of the San Francisco Bay is lessened/altered). The analysis focuses on impacts to local valued views available to the general public.

Visual Character and Visual Quality

Appendix G of the CEQA Guidelines provides different checklist questions to evaluate a project's impacts related to visual quality depending on if a project is in an urbanized or non-urbanized area (I. Aesthetics [c]). For projects in a non-urbanized area, the checklist question asks if a project would substantially degrade the existing visual character or quality of public views of the site and its surroundings. For a project in an urbanized area, the checklist question asks if the project would conflict with applicable zoning and other regulations governing scenic quality.

The project area is located within Redwood City, which is an urbanized area as defined by CEQA Guidelines Section 15387 and there are no applicable zoning or other regulations governing scenic quality that are applicable. However, because the project area is in an area that is not densely developed and is near valued scenic resources (San Francisco Bay and Bair and Greco Islands) and a waterfront park that capitalizes on the scenic views, the analysis of visual quality considers the checklist question intended for projects in a non-urbanized area of whether the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

The visual character of a site and its surroundings refers to the prominent physical characteristics and aesthetic features, such as mountains, bodies of water, and architecture. Visual quality refers to the viewer's perception of the physical characteristics and aesthetic features. Impacts related to visual character and visual quality are determined by comparing the appearance of the existing project area to the appearance of the project area after the implementation of the proposed project. The impacts analysis considers the extent to which implementation of the proposed project would change the perceived visual conditions (e.g., the change to views of visual resources).

Adverse effects relative to visual conditions include the loss of existing valued aesthetic features or the introduction of conflicting or incongruous visual features that contribute to a reduction in overall visual character of a local area. The compatibility of the project components (i.e., mass and scale) with the existing surrounding visual character is also assessed.

Visual Simulations

To assist in assessing changes to scenic vistas and the visual character and quality, conceptual visual simulations have been prepared that depict the project as viewed from several representative public locations. The focus is to depict the proposed project, including the new ferry terminal and associated facilities and a concept of the visitor-serving uses based on the maximum potential build-out, along with representative landscaping in the surface parking lot consistent with City requirements for parking lot landscaping and use of shade trees[1] and buffer areas. These visual simulations serve as a tool to facilitate a clearer understanding of the visual landscape post-development. The purpose of these simulations is to show the approximate location and massing of the future development and not specific building design, color, or configuration because no specific development plan for the visitor-serving uses is proposed at this time. Additionally, no specific landscape plan is proposed at this time; therefore, the landscaping depicted is conceptually based on existing landscaping surrounding the Pacific Shores Center and waterfront park and would be consistent with City requirements.

Light and Glare

The light and glare analysis documents the current lighting and glare sources at the project site during the day and night, identifies the uses and types of lighting that would occur as a result of the proposed project, and describes the proposed features relevant to light or glare propagation. This allows for an analysis of potential changes in light intensity, glare, and overall visual quality during the day and night, and whether the type and amount of lighting and type of building materials or other project features would contribute

[1] City of Redwood City. Zoning Ordinance, Article 30.18 – Improvements for Parking and Loading Facilities. Available: https://library.municode.com/ca/redwood_city/codes/zoning_code?nodeId=ART30OREPALO_30.18IMPALOFA.

to adverse light and/or glare impacts in surrounding areas (e.g., glare from reflective surfaces and light spillover onto sensitive uses).

3.1.3 Existing Conditions

3.1.3.1 Regulatory Setting

As described below, various plans and policy documents set forth regulations and guidelines for visual and aesthetic resources that relate to the proposed project.

3.1.3.1.1 Federal

No federal regulations or policies regarding aesthetics and visual resources are applicable to the proposed project.

3.1.3.1.2 State

Title 24

Outdoor Lighting Zones

Title 24 is the California Building Standards Code (Cal. Code Regs, Title 24).[2] Within Title 24 are the Part 6 Building Energy Efficiency Standards, known as the Energy Code, and the Part 11 Green Building Standards Code, known as CALGreen. Together, these regulations specify outdoor lighting requirements for residential and non-residential development. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on U.S. Census Bureau population figures, and the areas can be designated based on the level of ambient illumination: LZ0 (very low), LZ1 (low), LZ2 (moderate), LZ3 (moderately high), or LZ4 (high). Lighting requirements for dark and rural areas are stricter to protect the areas from new sources of light pollution and light trespass. According to U.S. Census Bureau data,[3] the project area in Redwood City is defined as an urban area and is therefore designated as LZ3[4] per the California Energy Commission outdoor lighting zone classification standards.[5]

Water Efficiency and Conservation

Title 24 Part 11 Chapter 5 addresses mandatory measures for non-residential development. Section 5.304 requires new development with a landscape area of equal to or greater than 500 square feet to comply with a local water efficient landscape ordinance of the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO) (California Code of Regulations, Title 23, Chapter

[2] California Code of Regulations, Title 24 - California Building Standards Code. Available: https://www.dgs.ca.gov/en/BSC/Codes.

[3] U.S. Census Bureau, Redwood City. California Profile. Available: https://data.census.gov/profile/Redwood_City_city,_California?g=160XX00US0660102. Accessed November 20, 2024.

[4] EnergyCodeAce. 10-114 – Determination of Outdoor Lighting Zones and Administrative Rules for Use. Available: https://www.energycodeace.com/content/10-114-determination-of-outdoor-lighting-zones-and-administr. Accessed March 11, 2025.

[5] UC Davis California Lighting Technology Center and California Energy Commission. 2023. Nonresidential Lighting and Electrical Power Distribution: A Guide to Meeting or Exceeding California's 2022 Building Energy Efficiency Standards, pages 48-53. Available: https://cltc.ucdavis.edu/sites/g/files/dgvnsk12206/files/media/documents/2022-Nonresidential-Lighting-Guide-003-Web.pdf.

2.7, Division 2). MWELO identifies methods for achieving water efficiency that include selecting plants based on local climate suitability and drought hardiness.

3.1.3.1.3 Regional/Local

San Francisco Bay Plan

The San Francisco Bay Plan (Bay Plan),[6] first adopted by the San Francisco Bay Conservation and Development Commission in 1968 and presented to the California Legislature and Governor in 1969, serves as a crucial regulatory document for the Bay Area. It outlines comprehensive policies and maps to guide the future use of the Bay and its shoreline. The purpose of the plan is to balance the demands of urban development with the need for environmental conservation. It emphasizes sustainable practices and prioritizes the protection of the Bay's ecosystem. The policies, as quoted below, are specific to aesthetics and are applicable to the proposed project. The Bay Plan does not use unique alpha or numerical identifiers for policies.

- Regional Development
  - Views from vista points and from public roads should be protected and scenic roads and trails should be built in accordance with the policies on Appearance, Design, and Scenic Views.
- Water Related Industry
  - Water-related industry and port uses should be planned so as to make the sites attractive (as well as economically important) uses of the shoreline.
    - Important Bay overlook points, and historic areas and structures that may be located in water-related industrial and port areas, should be preserved and incorporated into the site design, if at all feasible.
- Appearance, Design, and Scenic Views
  - To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shores of the Bay should be developed in accordance with the Public Access Design Guidelines.
  - All bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore. To this end, planning of waterfront development should include participation by professionals who are knowledgeable of the Commission's concerns, such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.
  - Structures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline. In particular,

[6] San Francisco Bay Conservation and Development Commission. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

parking areas should be located away from the shoreline. However, some small parking areas for fishing access and Bay viewing may be allowed in exposed locations.

- To enhance the maritime atmosphere of the Bay Area, ports should be designed, whenever feasible, to permit public access and viewing of port activities by means of (a) viewpoints (e.g., piers, platforms, or towers), restaurants, etc., that would not interfere with port operations, and (b) openings between buildings and other site designs that permit views from nearby roads.
- Shoreline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay.
- In order to achieve a high level of design quality, the Commission's Design Review Board, composed of design and planning professionals, should review, evaluate, and advise the Commission on the proposed design of developments that affect the appearance of the Bay in accordance with the Bay Plan findings and policies on Public Access; on Appearance, Design, and Scenic Views; and the Public Access Design Guidelines.

Redwood City General Plan

The Redwood City General Plan[7] provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The following key policies and strategies of the General Plan are specific to aesthetics and applicable to the proposed project.

Goal BE-1: Achieve complete and integrated neighborhoods, corridors, and centers.

- Policy BE-1.1 Maintain and enhance the beneficial and unique character of the different neighborhoods, corridors, and centers, and open spaces that define Redwood City.
- Policy BE-1.5 Require that new and renovated buildings be designed to avoid styles, colors, and materials that negatively impact the environment or the design character of the neighborhood, corridor, and center in which they are located.
- Policy BE-1.8 Require that new projects are integrated as seamlessly as possible into surrounding development, creating extensions of the urban fabric.
- Policy BE-1.9 Carefully consider new shade, shadow, light, and glare effects from proposed development projects and comprehensive plans.

Goal BE-2: Recognize, maintain, and celebrate the unique qualities of Redwood City's neighborhoods.

- Policy BE-2.6 Require commercial and industrial uses to screen service facilities from public view, and new development should enclose loading docks and bays when directly adjacent to residential uses.

[7] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Goal BE-10: Encourage the development of pedestrian- and water-oriented mixed-use communities that provide public accessibility to the Bay in Waterfront Neighborhoods.

- Policy BE-10.7 Improve pedestrian, bicycle, transit, and automobile linkages between the bayfront and the areas west of U.S. 101.

Goal BE-21: Maintain the viability of the Port of Redwood City as a center for goods and people movement and large-scale industrial activity.

- Policy BE-21.3 Prepare a plan that accommodates a passenger ferry terminal at the Port, and that: applies to all of the area immediately adjacent to the ferry terminal; facilitates a variety of travel mode connections to various parts of Redwood City; and establishes architectural and site planning standards for new buildings.

Goal BE-45: Preserve community aesthetics while providing for utility needs.

- Policy BE-45.2 Continue to require the placement of utilities underground with new development.

The General Plan also includes implementation programs to support the achievement of the goals and policies. The following implementation program is applicable to the proposed project:

Program BE-15: Title 24 Lighting Zone.

- Require all new development and redevelopment within Redwood City to be in compliance with Title 24 Lighting Zone (LZ-3) requirements. Encourage the use of low mounted, downward casting exterior lighting for all new development in the city, so as to reduce light trespass onto adjacent properties. Further, require new developments to submit lighting and photometric site plans for City review and approval prior to the issuance of individual building permits.

Redwood City Zoning Ordinance (Zoning Code)

The Zoning Ordinance[8] is a regulatory document that establishes specific standards for the use and development of all City properties and regulates the intensity of development. The Zoning Ordinance establishes city-wide setbacks, parking and sign standards, building height limits, and building densities that affect public and private views. Additionally, it identifies that Architectural Permits are required for new non-residential construction and other site modifications (Article 45 – Architectural Permits). Findings that must be made for an Architectural Permit include that the size and design of a structure presents a harmonious appearance and the extent to which a structure conforms to the general character of other structures in the vicinity when architecturally desirable.

The project site is zoned General Industrial which limits the height of structures to 100 feet (Article 19.5). The proposed project includes a proposed zone change as part of the visitor-serving uses to change the project site zoning from General Industrial to General Commercial. The General Commercial zoning classification allows building up to 75 feet in height. Zoning classifications for the surrounding project area, such as the waterfront park and land east of Seaport Boulevard, are discussed in more detail in Section 3.10, Land Use, of this Draft EIR. This analysis is focused on the project site, where the majority of visual impacts would occur.

[8] City of Redwood City. Zoning Ordinance. Available: https://www.redwoodcity.org/city-hall/code-and-ordinances.

Zoning Ordinance Article 30 – Off-street Parking and Loading includes lighting and landscaping requirements for off-street parking lots. Section 30.18 identifies that parking lot lighting must not create glare over the public right-of-way. Section 30.18 also identifies landscaping requirements for parking lots, including the provision of a minimum of 15 percent landscaping for parking lots with over 75 parking spaces. The landscaping should be distributed throughout the parking lot and must include one shade tree for every five parking spaces.

Redwood City Architectural Advisory Committee

The general objectives of the City's Architectural Advisory Committee (AAC) include providing architectural control for the enhancement of natural beauty of the environment and providing orderly and harmonious appearance of structures and grounds consistent with Zoning Code Article 45 discussed above.[9] The AAC advises the City Council, Planning Commission, and Zoning Administrator on matters concerning building and landscape architecture and urban design.

Port's 2020 Vision Plan

The 2020 Vision Plan,[10] approved by the Board of Port Commissioners of the Port of Redwood City, is a comprehensive strategy aimed at enhancing the Port's contribution to the region's economy and quality of life. The plan emphasizes maximizing land use and improving infrastructure to facilitate efficient operations. It also seeks to diversify maritime and commercial business efforts to ensure economic stability. Furthermore, it underscores the importance of protecting the environment, aligning the Port's growth with sustainable practices. The Vision Plan encompasses a series of findings and recommendations. The following findings and recommendations, while not directly constituting goals or objectives, provide valuable insights and guidance that are applicable to the proposed project.

- Finding No. 34: Use the Market Grid Overlay System process for planning, design, and implementation of a ferry landing and terminal (start with the minimum constructions of a berth and gangway with the capabilities to improve the ferry landing to a covered facility to support the passengers). Make the boarding and un-boarding of the ferry boat to be a pleasant experience in all weather conditions with a covered gangway and waiting area.
- Finding No. 35: The Ferry Landing and Terminal should be planned and designed like a cruise ship terminal.
- Finding No. 42: Public art, similar to the San Francisco Waterfront Promenade (Agriculture Building to Pier 22), should be part of the waterfront design standards along the Port's shoreline.

3.1.3.2 Environmental Setting

The baseline for characterizing the existing visual setting is the conditions at the beginning of proposed project operation that consist of a cleared graded project site. The project site is in Redwood City on land owned by the Port, bordered by Redwood Creek to the west, Westpoint Slough to the north, Frontage Road and Union Pacific Railroad tracks to the east, and the CEMEX marine terminal to the south. Bair

[9] City of Redwood City. Municipal Code, Section 2.110 – Architectural Advisory Committee. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH2AD_ARTIXBOCOCO_DIV2ESBOCOCO_S2.110ARADCO.

[10] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

Island is across Redwood Creek to the west and northwest of the project site and Greco Island is across Westpoint Slough to the northeast. Opposite the railroad tracks is Seaport Boulevard and the Pacific Shores Center. Immediately east of the project site is a public parking lot and small maintenance building, a waterfront park, and a portion of the Bay Trail that is open to the public.

The Port currently operates five wharves used for commercial freight shipping services. Ships enter the Port from San Francisco Bay by passing through the Redwood City Harbor Channel between Greco Island and Bair Island Ecological Reserve. Within the Redwood City Harbor Channel are two turning basins for ships to rotate before docking at or departing from the Port.

Recreational boaters launch out of the Port from the southern end of the Port (e.g., Port of Redwood City Municipal Marina, Redwood Landing Marina, Stanford Rowing and Sailing Center, Bair Island Aquatic Center, Blu Harbor Marina, and Marine Science Institute), as well as Westpoint Harbor to the east. Recreational boaters are allowed to operate in Redwood Creek and are required to maintain high visibility with lights during nighttime.

The San Francisco Bay Ferry (SFBF) currently operates commercial ferry services in the San Francisco Bay. SFBF operates six existing ferry routes using a fleet of 17 ferries, each with a carrying capacity between 225 and 445 passengers. Additionally, SFBF offers special event ferries and short hop ferry services. All vessels have two upper decks for passenger seating and viewing and aluminum hulls painted white, green, and blue. The existing ferry routes link San Francisco to the North Bay and to Oakland and other East Bay locations. South San Francisco, approximately 13 miles northwest of the project area, is currently the southernmost ferry terminal. None of the existing SFBF ferry routes operate to or from the Port of Redwood City or are visible from the vicinity of the project area.

3.1.3.2.1 Scenic Vistas

A scenic vista is defined as a long, expansive view of a highly valuable landscape from a publicly accessible vantage point. The scenic vista offers a high quality, harmonious, and visually interesting view. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces, and waterbodies. Redwood City is situated between the Santa Cruz Mountains to the west and south and the San Francisco Bay to the east/northeast, with scenic vistas located in the western portions of the City within elevated hillsides and neighborhoods and along the shore.

The Redwood City General Plan does not identify any designated public scenic vista points on the project site or oriented toward the project site. Scenic vistas that encompass the project site are primarily available from locations within the elevated southern and western hillside neighborhoods: the Easter Cross, Easter Bowl, Canada College, and the Edgewood County Park. Scenic vistas from these four locations show panoramic views of urban development, rural clusters, the Santa Cruz Mountains, the San Francisco Bay and its associated baylands, sloughs, and marshes (including Bair Island and Greco Island), and Diablo Range mountains beyond the opposite shore of San Francisco Bay. These scenic vantage points are approximately five miles or greater from the project site and only offer distant views in the direction of the project site. While the project site may be in the viewshed from certain locations at these vantage points, it is a minor element of the greater scenic vista and is not individually discernible due to the long distance.

Figure 3.1-1 identifies the location of several long- and short-range views of the project site and surroundings that are presented in **Figure 3.1-2** through **Figure 3.1-17** below and in **Section 3.1.3.2.2**. The views, which are briefly described below and in **Section 3.1.3.2.2** provide examples of the surrounding scenic resources and the project area's visual quality and character. Views 1 – 4 (**Figure 3.1-2** through **Figure 3.1-5** described below) show expansive public views of highly valuable landscapes (the Bay, marsh islands, and Santa Cruz Mountains) that either encompass or are visible from the project area. None of these views are designated scenic vistas.

The project site is visible at distance from Inner Bair Island, which includes a flat public hiking trail that has a scenic vista of Redwood Creek and Middle Bair Island. It is approximately 1.6 miles south of the project area. The project site forms part of the distant view to the northeast available from an observation platform at the trail's eastern terminus. **Figure 3.1-2** shows a view from the Bair Island hiking trail looking northeast across Smith Slough and Middle Bair Island towards the Port and project area. The Port facilities and a ship berthed at the CEMEX marine terminal are visible. A distant view of the project site is available to the left of the ship with powerline towers and the Diablo Range mountains in background.

The project site is located in an area that has expansive views of several highly valuable landscape features, the Santa Cruz Mountains and the Bay, water channels, and marsh islands. The Santa Cruz Mountains form a notable scenic resource that creates a distinguishable topographic feature that defines many of the views in Redwood City. Views of the Santa Cruz Mountains are available from publicly accessible locations near the project site (i.e., public parking lot and a portion of the Bay Trail); however, they are partially obstructed by intervening development, landscaping, and port-related infrastructure. **Figure 3.1-3** is a view from the public parking lot to the southwest of the project site that shows the Frontage Road terminus and the CEMEX marine terminal with views of the Santa Cruz Mountains in the background. Along the shoreline near the project area, Redwood Creek and Middle Bair Island are visible to the west and Westpoint Slough and Greco Island are visible to the north with views of Diablo Range in the distance. There are urban intrusions, such as powerlines and existing development, affecting views of these resources. **Figure 3.1-4** shows a view from the Bay Trail east of the project site looking southeast towards the Pacific Shores Center, Westpoint Slough, and Greco Island. **Figure 3.1-5** shows a view from the Bay Trail looking northwest towards the project site and confluence of Westpoint Slough and Redwood Creek.

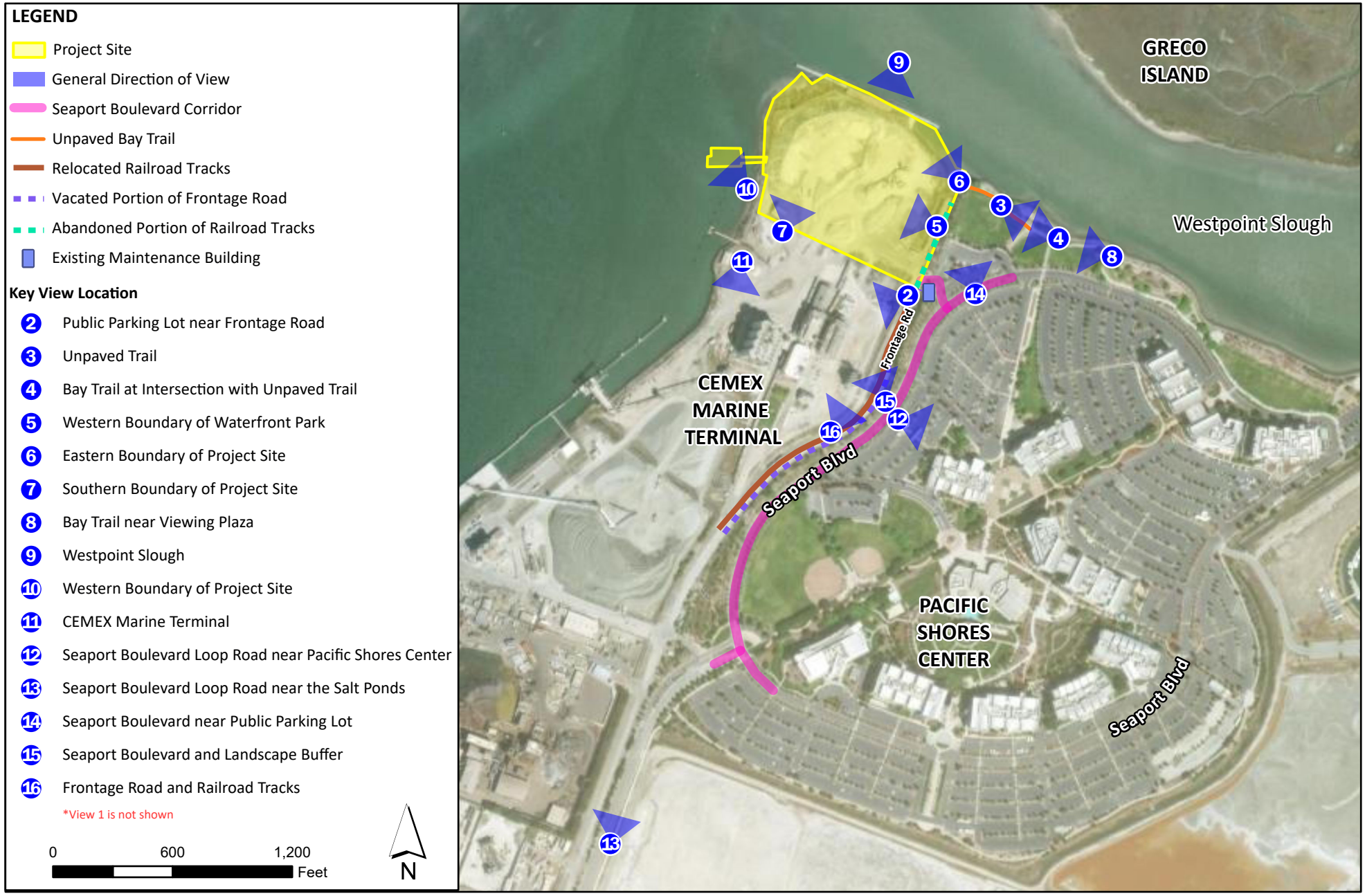


Figure 3.1-1

Port of Redwood City Ferry Terminal Project

VIEW LOCATION MAP



Source: CDM Smith Team, 2024.

Figure 3.1-2 View 1: Inner Bair Island Trail
(Looking northeast towards the project site)



Source: CDM Smith Team, 2024.

Figure 3.1-3 View 2: Public Parking Lot near Frontage Road
(Looking southwest towards the CEMEX marine terminal and Santa Cruz Mountains)



Source: CDM Smith Team, 2024.

Figure 3.1-4 View 3: Unpaved Trail
(Looking southeast towards the Pacific Shores Center, Westpoint Slough, and Greco Island)



Source: CDM Smith Team, 2024.

Figure 3.1-5 View 4: Bay Trail at the Intersection with the Unpaved Trail
(Looking northwest towards the project site)

3.1.3.2.2 Visual Character and Visual Quality

As stated in **Section 3.1.2**, visual character refers to the prominent physical characteristics and aesthetic features, such as mountains, bodies of water, and architecture and visual quality refers to the viewer's perception of the physical characteristics and aesthetic features. Visual resources are components of the natural, cultural, or project environment that can be seen, including land, water, vegetation and animals, structures and artifacts, and fixtures that comprise the project environment.[11]

The project site is flat and vacant and lacks visually significant geologic, hydrologic, or vegetative features. The project site was previously used for stockpiling of materials for recycling and sale of concrete base rock but the stockpiles and associated equipment are in the process of being removed and the site graded. It is generally flat with sloped sides leading to the water's edge and covered with hard packed dirt and pockets of vegetation, primarily along the edges of the site. A recently filled stormwater ditch leads to a tide gate that outlets to Westpoint Slough on the eastern edge of the project site. The shoreline is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. An abandoned wharf, the Shell Unloading Wharf, that extends parallel from the shore into Westpoint Slough is at the northern edge of the project site. The project site is not publicly accessible and there is a chain-link fence and access gate between the adjacent railroad tracks and the waterfront park and parking lot. On occasion, train cars are stowed along the railroad tracks. The southern boundary of the project site is unfenced and adjacent to the CEMEX marine terminal. Redwood Creek and Westpoint Slough are along the western and northern boundary of the project site, respectively. The project site is vacant with no notable on-site visual resources, and, therefore, is generally of low visual quality. **Figure 3.1-6** through **Figure 3.1-17** below provide examples of the project area's visual quality and character, including public and non-public views. The location of each view is identified on **Figure 3.1-1**.

Figure 3.1-6, **Figure 3.1-7**, and **Figure 3.1-8** show the project site when it was occupied with stockpiles and equipment, which are being removed independently of the proposed project, and are not part of the proposed project's future baseline condition that consists of a cleared and graded site. **Figure 3.1-6** and **Figure 3.1-7** are views available from the boundary of the waterfront park. **Figure 3.1-8** is a view on the project site that is not public.

[11] Federal Highway Administration. 2015. Guidelines for the Visual Impact Assessment of Highway Projects. Document No. FHWA-HEP-15-029. Available: https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx.



Source: CDM Smith Team, 2024.

Figure 3.1-6 View 5: Western Boundary of the Waterfront Park
(Looking west into the project site, showing site conditions prior to clearing and grading)



Source: CDM Smith Team, 2024.

Figure 3.1-7 View 6: Eastern Boundary of the Project Site
(Looking northwest towards the tide gate and the project site, showing site conditions prior to clearing and grading)



Source: CDM Smith Team, 2024.

Figure 3.1-8 View 7: Southern Boundary of the Project Site
(Looking northeast, showing site conditions prior to clearing and grading)



Source: CDM Smith Team, 2024.

Figure 3.1-9 View 8: Bay Trail near Viewing Plaza
(Looking west towards the project site, showing site conditions prior to clearing and grading)



Source: CDM Smith Team, 2024.

Figure 3.1-10 View 9: Westpoint Slough
(Looking south towards the project site, showing site conditions prior to clearing and grading)



Source: CDM Smith Team, 2024.

Figure 3.1-11 View 10: Western Boundary of the Project Site
(Looking northwest towards Redwood Creek and Bair Island)



Source: CDM Smith Team, 2024.

Figure 3.1-12 View 11: CEMEX Marine Terminal
(Looking southwest)



Source: CDM Smith Team, 2024.

Figure 3.1-13 View 12: Seaport Boulevard Loop Road near the Pacific Shores Center
(Looking northeast)



Source: CDM Smith Team, 2024.

Figure 3.1-14 View 13: Seaport Boulevard near the Salt Ponds
(Looking north towards the project site)



Source: CDM Smith Team, 2024.

Figure 3.1-15 View 14: Seaport Boulevard near the Public Parking Lot
(Looking north towards the waterfront park and the public Bay Trail)



Source: CDM Smith Team, 2024.

Figure 3.1-16 View 15: Seaport Boulevard Loop Road and Landscaped Buffer
(Looking north)



Source: CDM Smith Team, 2024.

Figure 3.1-17 View 16: Frontage Road and Railroad tracks near the CEMEX Marine Terminal
(Looking north)

The project site is flat and level with low lying elevations along the bayside. Areas where the general public has a vantage point from which to view the project site are from the waterfront park, Bay Trail and western public parking lot to the east, although these areas are partially obscured by a landscape buffer of mature trees that separates the waterfront park from the railroad tracks. **Figure 3.1-9** shows a public view from the Bay Trail looking west towards the project site. A former stockpile and the Shell Unloading Wharf are visible. Clear views of the project site are available from the waterways to the west (Redwood Creek) and north (Westpoint Slough), which are hubs for a variety of motorized and non-motorized water recreational and commercial activities (e.g., boating, rowing, sailing, kayaking, stand-up paddleboarding, windsurfing, and kite surfing). **Figure 3.1-10** shows a public view of the project site from Westpoint Slough.

The visual character of the project area includes natural and developed features. The shoreline along the Redwood Creek and Westpoint Slough waterways offers views of Bair Island and Greco Island, respectively. These bayland islands consist of vegetated marshlands and vacant, open landscape. The vegetation varies depending on the distance from the water but is primarily low-lying grasses and larger shrubs with no trees. Both islands are preserved for their natural resources and are managed by the U.S. Fish and Wildlife Service (USFWS) as part of the Don Edwards National Wildlife Refuge. Waterfowl and other birds frequent the open water and marsh areas surrounding the project site. The sights of open water, marshes, and aquatic and non-aquatic wildlife are components of the surrounding area's aesthetics. See **Figure 3.1-7** which shows a public view of Greco Island across Westpoint Slough from the project site and **Figure 3.1-11** which shows of view Bair Island across Redwood Creek from the project site (this view is not public). These existing aesthetic values are impaired, however, by the presence of built facilities, including utility corridors with overhead electric transmission lines that traverse the baylands and sloughs, and the presence of conveyor lines, cranes, clusters of large cement storage silos, stockpiles of construction and scrap metal recycling materials, barges, wharves, and other structures associated with Port facilities and activities to the south that include ship berthing, construction materials importing and scrap metal exporting operations, refinement of petroleum-based fuels, chemical wholesale distribution, and environmental waste services. **Figure 3.1-12** shows development at the CEMEX marine terminal to the south of the project site (this view is not public). To the east of the project site is the linear waterfront park which stretches along the Westpoint Slough shoreline and features the Bay Trail, turf areas, landscaping, and several seating areas, as shown in **Figure 3.1-4** and **Figure 3.1-5** above. In addition, the Pacific Shores Center office park and associated surface parking lots provide a business-oriented visual character to the vicinity. The office buildings are from three to five stories in height, clustered irregularly throughout the Center and surrounded by the Seaport Boulevard loop road, landscaping and walkways, and large surface parking lots. See **Figure 3.1-13** which is taken from the Seaport Boulevard loop road, which is a private street that provides public access to the western public parking lot and Bay Trail. A cinderblock maintenance building, currently located near the project site entrance at Seaport Boulevard, is one story in height and approximately 1,000 square feet in size (approximately 40 feet by 25 feet). The proposed ferry route within Redwood Creek is presently utilized by commercial freight ships as well as recreational boaters. Shipping and recreational boating activities can be observed from the project site and intermittently reduce views of Bair Island.

Large salt crystallization ponds are located south of the Pacific Shore Center, east of Seaport Boulevard as shown in **Figure 3.1-14**. This view is public. The portion of Seaport Boulevard loop road, which would be widened by approximately 10 to 13 feet on both sides under the proposed project, and Frontage Road are situated between the Pacific Shores Center and the Port. A landscaped buffer that ranges between 30 and 75 feet separates the two roadways. **Figure 3.1-15** and **Figure 3.1-16** show views along the Seaport Boulevard loop road which is a private street that provides public access to the western public parking lot and the Bay Trail. **Figure 3.1-16** also shows the landscaped buffer that separates the private Seaport Boulevard loop road and Frontage Road. **Figure 3.1-17** shows the landscaped buffer from Frontage Road and the railroad tracks. This view is not public.

3.1.3.2.3 Light and Glare

As discussed in **Section 3.1.3.1**, the project area is designated as Lighting Zone (LZ3) per Title 24. The LZ3 zone is defined by moderately high levels of ambient illumination. Light generated by the existing on-site and adjacent uses (e.g., the Pacific Shores Center to the east and CEMEX marine terminal to the south) contribute to the ambient lighting levels in the surrounding area. The lighting at the project site consists of perimeter light posts that are provided for security purposes as shown in **Figure 3.1-18**, which shows the project site when it was previously occupied with stockpiles and equipment. The existing lighting to the east is primarily for safety, security, and vehicular and pedestrian movement. The lighting sources include streetlights, parking lot lights, building security lights, vehicle headlights, internal building lights, and decorative landscape lighting. The existing stationary light sources, including at the project site, are generally directed downwards and include shielding to limit off-site light trespass. There are also reflective water and building surfaces and windows. To the south there are high lighting levels for nighttime port operations, including stationary sources of lighting for nighttime visibility and security and non-stationary sources such as vehicle headlights and equipment lighting. The nighttime illumination emanating from the commercial freight ships and recreational boaters within Redwood Creek constitute a source of light that may be visible from the project site. **Figure 3.1-19** shows lighting at the CEMEX marine terminal to the south and **Figure 3.1-20** shows lighting visible from the public parking lot east of the project site, including parking lot lighting, lighting along the Bay Trail, and indoor and outdoor lighting at the Pacific Shores Center. Lighting is also visible from the powerlines north of the project site and from distant urban uses including from across San Francisco Bay as shown on **Figure 3.1-21**.

Daytime glare can occur from the sunlight reflecting off the windows of existing on-site equipment and vehicles parked in the adjacent surface parking lots. Daytime glare can also occur from sunlight reflecting off the hulls of both commercial freight ships and recreational boats entering and exiting the Port.



Source: CDM Smith Team, 2024.

Figure 3.1-18 Nighttime View of the Project Site from the boundary of the Waterfront Park
(Looking northwest)



Source: CDM Smith Team, 2024.

Figure 3.1-19 Nighttime View from Public Parking Lot near Frontage Road
(Looking southwest towards the CEMEX marine terminal)



Source: CDM Smith Team, 2024.

Figure 3.1-20 Nighttime View from the Public Parking Lot
(Looking northeast towards the Pacific Shores Center)



Source: CDM Smith Team, 2024.

Figure 3.1-21 Evening View from the Waterfront Park
(Looking north towards Greco Island)

3.1.4 Thresholds of Significance

The proposed project would result in significant impacts associated with aesthetics and visual resources if it would:

Impact 3.1-1: Have a substantial adverse effect on a scenic vista ("Scenic vista" is a long, expansive view of a highly valued landscape from publicly accessible vantage points).

Impact 3.1-2: Substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points).

Impact 3.1-3: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.5 Project Impacts

Three viewing locations have been identified to provide representative visual simulations of build-out of the proposed project from public locations (the western public parking lot, the Bay Trail, and Redwood Creek) to assist in assessing changes to scenic vistas (Impact 3.1-1) and the visual character and quality (Impact 3.1-2). Each visual simulation shows a photograph of the project site's "before" condition prior to site clearing and grading and conceptual rendering of the project site's future developed "after" condition from the same location and angle. The previous condition shown in each photograph depicts the project site when it was used for stockpiling of materials for recycling and sale of concrete base rock, prior to the existing condition, which is a vacant site that has been graded to approximately 10 feet North American Vertical Datum NAVD[12] of 1988. The modeled future conditions show the 9.2-acre project site raised to approximately 17 feet NAVD to address future sea level rise. Specifically, the building shapes, sizes, and configuration are intended to show the approximate location and massing of the future development if the maximum square footages identified in this EIR are constructed. They are not intended to show specific building design, color, or siting which are not available at this time and would be speculative.

The landscaping shown indicates where landscape buffering would be installed and it shows conceptual parking lot landscaping consistent with City requirements. Additional landscaping and features such as seating and lighting fixtures that would be provided to enhance the project site aesthetics and public accessibility, such as along the shoreline, buildings, and ferry terminal, are not depicted.

The general location and view direction of each visual simulation is shown in **Figure 3.1-22** and a brief description is provided below.

[12] NAVD is established for vertical control surveying in the U.S.



Figure 3.1-22

Port of Redwood City Ferry Terminal Project

VISUAL SIMULATION LOCATION MAP

Figure 3.1-23 shows a view from the edge of the public parking lot at the terminus of Frontage Road looking northwest towards the project site entrance. The before photograph shows the chain link fence that separates the active Port area and railroad tracks from the western public parking lot and waterfront park. While the existing baseline conditions are a graded vacant site, this view shows the previous use at the project site characterized by sand and gravel stockpiling and industrial equipment. Vegetation shown on the lefthand side of the photograph was associated with the former drainage ditch. The after view shows the entrance of the project site facing just to the west of the intersection of Seaport Boulevard and the new access road. The after view shows the new surface parking lot surrounded by the one-way loop road and sidewalk and Class I bicycle trail. A small area of the landscape buffer that would be installed between the project site and the CEMEX marine terminal is shown in the lefthand corner. A one-story office, one-story restaurant, and three-story hotel are depicted beyond the parking lot. The ferry terminal is not visible from this location.

Figure 3.1-24 shows the view of the project site looking northwest from the unpaved trail that connects to the existing paved public Bay Trail on the shoreline of the waterfront park. The before view shows the trail and adjacent landscaping in the foreground. The before view is characterized by open space, greenery, and landscaping, with the waters of Westpoint Slough and more distantly, Redwood Creek, partially visible in the background. Bair Island and transmission towers are also shown in the distance. The line of trees that provide a buffer from the waterfront park and the project site is also apparent. Views of the project site are limited due to the existing landscaping, but the abandoned Shell Unloading Wharf can be seen at the Westpoint Slough shoreline.

The after view shows the paving of the existing trail that would connect to the segment of the Bay Trail in the project site. The raised project site and visitor-serving uses can be seen beyond the existing landscaping. The existing Shell Unloading Wharf has been removed. The views of Westpoint Slough with Redwood Creek, Bair Island, and transmission towers beyond remain visible. Greenery and landscaping would be unaffected and remain visible from the unpaved trail, which would be paved connected to the existing Bay Trail under the proposed project. The proposed parking lot and ferry terminal are not visible from this location.

Figure 3.1-25 shows the view of the project site looking south from Redwood Creek. This view is only visible from the water. The waters of Redwood Creek are shown in the foreground. The before view shows the shoreline portion of the project site. While the existing conditions are a graded vacant site, the before view shows the previous use at the project site characterized by sand and gravel stockpiling and industrial equipment. The existing Shell Unloading Wharf and riprap along the shoreline are visible. The Pacific Shores Center is visible in the lefthand side of the photograph and Port facilities are shown beyond the project site and on the righthand side of the photograph. The Santa Cruz Mountains can be seen in the background.

The after view presents a wider view than the before photograph so that a conceptual rendering of the full ferry terminal is presented on the righthand side of figure. The after view also shows the visitor-serving uses. The permanent restroom is also shown to the right of the hotel. A small portion of the Pacific Shores Center remains visible at the lefthand edge and portions of the Port facilities remain visible behind the new development. The view of the Santa Cruz Mountains is partially obstructed by the hotel building but the mountains can be seen on either side of the three-story structure.





Source: CDM Smith, 2024

Figure 3.1-23

Visual Simulation - View from Ferry Terminal Access Road Looking Northwest





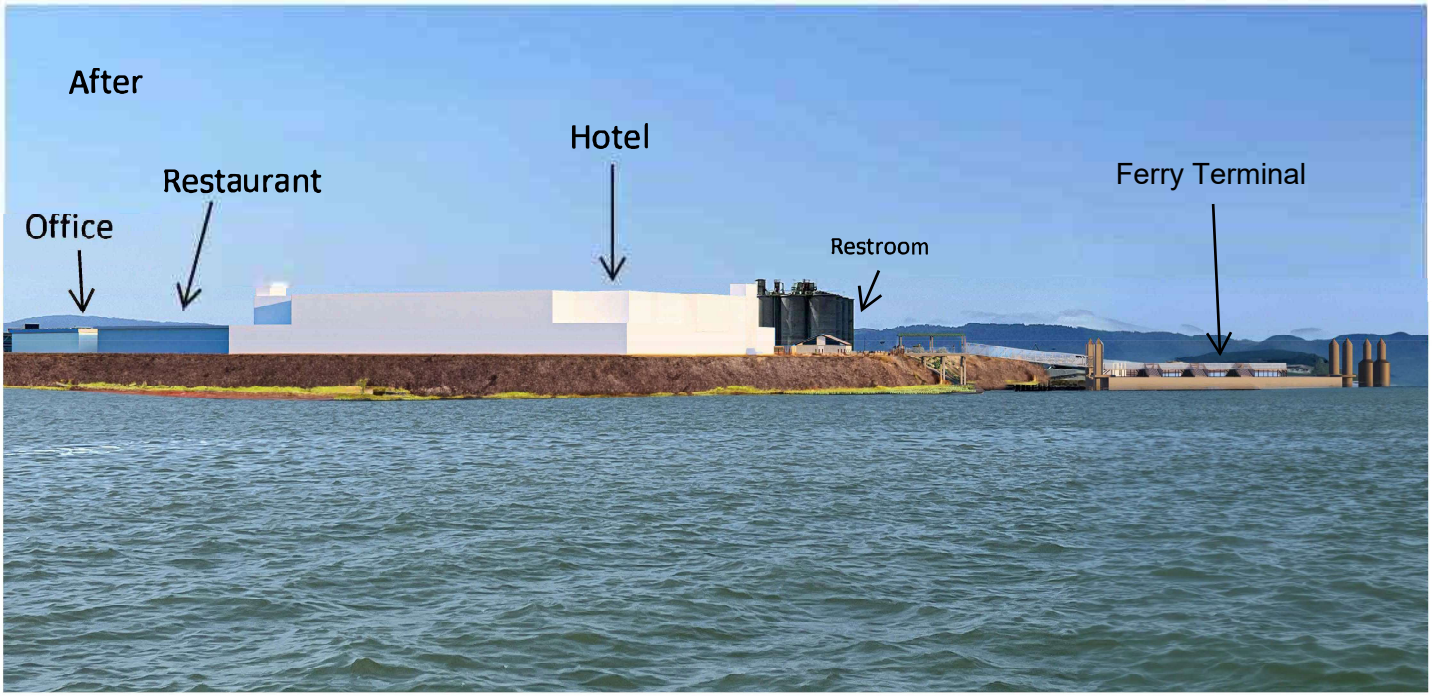
Source: CDM Smith, 2024

Figure 3.1-24

Port of Redwood City Ferry Terminal Project

Visual Simulation - View from the Existing Bay Trail Looking Northwest





*The After view depicts a wider area than the Before view to show a full conceptual rendering of the Ferry Terminal.

Source: CDM Smith, 2024

Figure 3.1-25

Port of Redwood City Ferry Terminal Project

Visual Simulation - View from Redwood Creek Looking South

3.1.5.1 Impact 3.1-1

Would the proposed project have a substantial adverse effect on a scenic vista ("Scenic vista" is a long, expansive view of a highly valued landscape from publicly accessible vantage points)?

3.1.5.1.1 Construction

3.1.5.1.1.1 Ferry Terminal

Construction would include temporary demolition activities including grading, excavation and earthwork, as well as construction vehicles and equipment, along with waterside activity associated with dredging. As discussed in **Section 3.1.3.2.1**, the Redwood City General Plan does not identify any designated public scenic vista points on the project site or oriented toward the project site. While scenic vistas encompassing the project area are available from viewpoints within the elevated southern and western hillside neighborhoods (the Easter Cross, Easter Bowl, Canada College, and the Edgewood County Park), these viewpoints are approximately five miles or greater from the project site and only offer distant views in the direction of the project site. Given the distance of the project site from these viewpoints, the project site is indistinguishable and, therefore, construction of the ferry terminal would not have a substantial adverse effect on a scenic vista.

The project site is in the viewshed from the Inner Bair Island Trail, however it is distant and partially obstructed by intervening structures. Construction occurring in the project area would be temporary and not discernible from this location and distance.

Scenic vistas that are available from public locations in the project area include the Santa Cruz Mountains. The temporary presence of construction equipment at the project site would not block views of the Santa Cruz Mountains.

In the vicinity of the project site, including the Bay Trail and the water channels, there are scenic foreground views of Redwood Creek, Bair Island, Westpoint Slough, and Greco Island. While construction activities in the project area would be visible from some locations with scenic public views, particularly from the waterways, the presence of construction activities would be temporary and, additionally, views of Redwood Creek and Bair Island to/from the west and Westpoint Slough and Greco Island to/from the north would remain available from the publicly accessible vantage points and would not be substantially altered or disrupted by construction activities. Views of the project site from the Bay Trail are limited by existing vegetation, which would obscure views of the construction activities. In addition to being a temporary addition to the viewshed, views of construction equipment and activities would be consistent with the industrial and maritime nature of the Port facilities to the south of the project site. Therefore, construction of the ferry terminal landside and waterside improvements would not have a substantial adverse effect on a scenic vista; the impact would be less than significant.

3.1.5.1.1.2 Visitor-Serving Uses

As discussed in **Section 3.1.3.2.1**, the project site is not distinguishable from scenic viewpoints within the elevated southern and western hillside neighborhoods and has limited visibility from the Inner Bair Island Trail. There are scenic vistas available from public locations in the project area, including the Santa Cruz Mountains. Construction of the upper floors of the hotel could partially block views of the mountains from the waterways north of the project area when looking straight at the structures, however, construction would be temporary and views of the mountains would remain on either side. Further, the primary vista

in this location is the Bay and related features and the reduction of views of the Santa Cruz Mountains would not be a substantial adverse effect on a scenic vista.

As described above for construction of the ferry terminal, construction activities in the project area would be visible from some locations with scenic public views, particularly from the waterways and construction fencing and construction of the hotel and may reduce views from some angles. However, construction activities would be temporary and expansive views would remain on either side of the construction area and construction activities associated with the visitor-serving uses would not substantially alter views of scenic vistas and visual resources. Therefore, construction of the visitor-serving uses would not result in substantial adverse effects on scenic vistas; the impact would be less than significant.

3.1.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, construction activities associated with the ferry terminal and the visitor-serving uses would be temporary and would not substantially or permanently alter or degrade views of scenic vistas and visual resources from publicly accessible vantage points. Construction of the ferry terminal would occur prior to construction of the visitor-serving uses. While this would increase the amount of time that construction activities are occurring at the project site as compared with constructing both components at the same time, the project site is not distinguishable from scenic viewpoints within the elevated southern and western hillside neighborhoods and construction activities would not obstruct public views of the nearby scenic resources that are available from the waterways and the Bay Trail. Furthermore, views of construction equipment and activities would be temporary, as well as consistent with the industrial and maritime nature of the Port of Redwood City, which already interrupt or interfere with scenic views from surrounding public vantage points. Additionally, construction staging of the visitor-serving uses would be shielded from public view with construction fencing. Therefore, construction of the proposed project would not result in substantial adverse effects on scenic vistas; the impact would be less than significant.

3.1.5.1.2 Operations

3.1.5.1.2.1 Ferry Terminal

Although the installation of a new ferry terminal and associated facilities would result in a new use of the project site and the Bay, it would not impede or degrade short- or long- distance scenic views available from the project site and other locations. As discussed in **Section 3.1.3.2.1**, the project site is not distinguishable from scenic viewpoints within the elevated southern and western hillside neighborhoods.

While the project site is in the viewshed from the Inner Bair Island Trail, it is distant, partially obstructed by intervening structures, and visually blends in with other distant development such as the CEMEX silos. Additionally, when a ship is docked at the CEMEX site to the south, the project site as shown in **Figure 3.1-2**, is further obscured. The low profile ferry terminal and associated facilities would not be discernable from this location and distance.

Scenic vistas that are available from public locations in the project area include the Santa Cruz Mountains and the Bay, water channels, and marsh islands. The ferry terminal and associated facilities would be low profile and while they would result in some interruption, they would not block views of the Santa Cruz Mountains. As shown in **Figure 3.1-25** (which also shows the visitor-serving uses), views of the mountains are available in the distance beyond the ferry terminal.

In the vicinity of the project site, including the Bay Trail and the water channels, there are also expansive scenic foreground views of Redwood Creek, Bair Island, Westpoint Slough, and Greco Island. The 9-acre project site elevation would be raised from approximately 10 feet NAVD to 17 feet NAVD. This would help protect the project site against future sea level rise and 100-year flood events. The edges of the project site would be sloped as they transition from the surrounding properties. The driveway into the project site from Seaport Boulevard would also be sloped from the existing grade to the new raised elevation. Low-growing landscaping along the new sloped berm at the water's edge and the preservation of key sightlines afforded by the raised elevation of the project site, would ensure that the scenic vistas of the San Francisco Bay, water channels, and marsh islands remain largely unobstructed.

The ferry terminal would have limited visibility from Westpoint Slough, the Bay Trail, and Seaport Boulevard to the east because of its placement on the western side of the project site and existing landscaping at the eastern boundary of the project site. Overall, views presently available of the marshlands, sloughs, and waterways from the shoreline areas would not substantially change with the operation of the new ferry terminal and associated facilities, which would be low profile and visually unobtrusive.

The maintenance building, currently located near the project site entrance and Seaport Boulevard, would be reconstructed in an area to be determined within the parking lot of the Pacific Shores Center. Although it would depend on its new site, the relocated maintenance building is assumed to be in a viewshed of the Westpoint Slough. However, the relocated maintenance building would be similar in size and design and would not substantially block or obscure views from publicly accessible vantage points.

The extension of the Bay Trail along the shoreline perimeter of the project site would not adversely affect scenic vistas and it would provide expanded public access to scenic vistas of Redwood Creek, Westpoint Slough, and Bair and Greco Islands. The other access improvements, including the widening of Seaport Boulevard and relocation of the railroad tracks, would occur at-grade and would not affect scenic vistas. While the project site access road would be sloped to provide a gradual grade change from the existing roadway elevation to the raised elevation of the project site as previously described, the widening of Seaport Boulevard and other project components outside of the project would remain at the existing elevation and would not affect scenic vistas.

As described above, the proposed project would not deteriorate foreground views of Redwood Creek and Bair Island to the west from the project site and surrounding public vantage points, including the Bay Trail. As discussed in **Section 3.1.3.2.1**, the project site is not distinguishable from scenic viewpoints within the elevated southern and western hillside neighborhoods. Given the existing daytime and nighttime commercial freight shipping and recreational boating activities within Redwood Creek, the addition of ferry service vessels on the water would not substantially degrade existing views from the project site. Therefore, operation of the ferry terminal would not result in substantial adverse effects on scenic vistas; the impact would be less than significant.

3.1.5.1.2.2 Visitor-Serving Uses

The visitor-serving uses would introduce visually prominent commercial development on the project site, including a hotel, restaurant and retail, and limited office uses. There would also be a small permanent restroom that would replace the interim portable restroom installed when the ferry terminal is constructed. The project site is not distinguishable from scenic viewpoints within the elevated southern

and western hillside neighborhoods and the visitor-serving uses would not affect these scenic views. While the new development would be in the viewshed from the Inner Bair Island Trail, it would be distant, partially obstructed by existing structures, and would visually blend in with other distant development such as the CEMEX silos (see **Figure 3.1-2**). Given the distance, while the new buildings may be discernable, they would not affect the expansive scenic vista of Middle Bair Island, Redwood Creek, and the Bay.

Scenic vistas that are available from public locations in the project area include the Santa Cruz Mountains and the Bay, water channels, and marsh islands. When viewed from the waterways to the north of the project site, the visitor-serving uses would reduce views of the Santa Cruz Mountains. However, as shown in **Figure 3.1-25**, views of the mountains would remain on either side. Further, the primary vista in this location is the Bay and related features and the reduction of views of the Santa Cruz Mountains would not be a substantial adverse effect on a scenic vista.

Depending on the specific viewer vantage point from the Bay Trail, the visitor-serving uses would interrupt limited portions of the public's foreground views of Redwood Creek and Bair Island to the west, and background views of the Santa Cruz Mountains to the south and southwest. Views of these resources are obstructed by the existing CEMEX silos, landscaping, and other intervening structures in the project area. The existing landscaped buffer that limits existing views from the Bay Trail is shown in **Figure 3.1-24**. Additionally, the expansive views of Westpoint Slough and Greco Island from the Bay Trail would not be affected. Further, as shown in **Figure 3.1-24**, the new buildings would be located a minimum of 100 feet from the shoreline and views of Bair Island and Redwood Creek to the west would also remain available from the Bay Trail.

The proposed visitor-serving uses, situated on the raised elevation of approximately 17 feet NAVD, would be designed to minimize their visual impact on the surrounding scenic vistas of the San Francisco Bay. The hotel building height at the project site would be limited to three stories (e.g., approximately 45 feet) which, with the raised elevation, would appear similar or lower in height than the three- to five-story buildings in the adjacent Pacific Shores Center. The restaurant, office space, and permanent restroom would be single-story buildings, and would be less visually obtrusive than the three-story hotel.

As described above, views of Redwood Creek and Bair Island to the west and Westpoint Slough and Greco Island to the north would still exist. Views presently available of the hills beyond the San Francisco Bay, and other built and natural features would not change noticeably with the operation of the visitor-serving uses. The visitor-serving uses would also provide expanded public access to the scenic vistas available from the project site. Therefore, operation of the visitor-serving uses would not result in substantial adverse effects on scenic vistas; the impact would be less than significant.

3.1.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would integrate the ferry terminal and associated facilities and the visitor-serving uses and the uses would be complimentary. As discussed above, while the new development on the raised project site would interrupt views of the adjacent waterways, marsh islands, and mountains from certain public locations, extensive views of these resources would remain from other nearby public locations, and these views are not designated scenic vistas. Further, the combined project elements would improve public access to the surrounding views by creating a variety of new public access opportunities at a waterfront property that is currently inaccessible to the public. Therefore, operation of the proposed

project would not result in substantial adverse effects on scenic vistas; the impact would be less than significant.

3.1.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.1.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.1.5.2 Impact 3.1-2

Would the proposed project substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points)?

3.1.5.2.1 Construction

3.1.5.2.1.1 Ferry Terminal

Construction activities would be temporary and would not substantially alter the visual character of the project site as the project site itself has limited aesthetic value, as described above in **Section 3.1.3.2.2**. The project site is a flat, vacant, graded site with no architecturally distinctive or historic buildings or other structures other than the abandoned Shell Unloading Wharf that extends parallel from the shore into Westpoint Slough at the northern edge of the project site. The project site also lacks visually significant geologic, hydrologic, or vegetative features. The presence of construction equipment (e.g., cranes and excavators) and materials storage at the project site would be most visible from adjacent public waterways (i.e., Redwood Creek and Westpoint Slough) and partially obstructed due to existing landscaping from public areas to the east (i.e., the Bay Trail). Construction activities associated with access improvements along the Seaport Boulevard loop road would be visible from some areas of the Pacific Shores Center, including public athletic fields near the entrance. Relocation of the railroad tracks would occur adjacent to Port facilities and would be obscured from view from areas outside of the Port by existing development and landscaping. These construction activities would be temporary and not a permanent addition to the visual context. Additionally, the temporary presence of construction equipment and activities would be consistent with the existing industrial/commercial and maritime visual character of the project site and immediately surrounding area. Therefore, temporary construction of the ferry terminal and associated facilities would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.1.2 Visitor-Serving Uses

The temporary presence of construction equipment and activities associated with the visitor-serving uses would not substantially alter the visual character or quality of the project site. The presence of equipment, construction staging, and material storage on-site during construction would be short-term and would not greatly contrast with the industrial nature of the Port facilities adjacent to the project site. Also, the construction area would be surrounded by temporary fencing thereby obstructing views of the construction activities from surrounding areas. Therefore, construction of the visitor-serving uses would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the proposed project would be temporary and not substantially alter the visual character of the project site, as the site itself has limited aesthetic value and lacks architecturally distinctive or historic buildings, as well as visually significant geologic, hydrologic, or vegetative features. Construction of the ferry terminal would occur prior to construction of the visitor-serving uses. While this would increase the amount of time that construction activities are occurring at the project site as compared with constructing both components at the same time, the presence of construction equipment (e.g., cranes and excavators) and materials storage would be temporary and would also be consistent with the existing industrial/commercial and maritime visual character of the site and its immediate surroundings. As described for the ferry terminal and the visitor-serving uses above, the construction of the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.2 Operations

3.1.5.2.2.1 Ferry Terminal

Although the addition of a new ferry terminal would alter the operations on the project site, it would be visually compatible and consistent with the existing developed uses in the surrounding area, including the Port facilities and the Pacific Shores Center and associated surface parking lots. The proposed ferry terminal and associated facilities would be low-profile and visually compatible with the existing landscape along and adjacent to Redwood Creek and Westpoint Slough. The terminal access pier, gangway, and floating dock would be visually similar to the existing wharves and Port facilities located at other Port facilities on Redwood Creek.

As shown in **Figure 3.1-25** above, views of the Santa Cruz Mountains would remain visible in the background. Views of the water and the scenic surroundings would remain largely intact and the visual character of the area would be preserved. The ferry terminal would be constructed per design standards and character-preserving policies discussed in **Section 3.1.3.1.3**. This includes preserving views of the Bay and enhancing the maritime atmosphere consistent with the Bay Plan and maintaining the unique character consistent with the Redwood City General Plan. Ferries would be visible at the terminal during docking for loading and unloading, and for occasional overnight berthing when needed. The ferries would be consistent with the maritime uses and character of Redwood Creek and while the docked ferries may temporarily reduce the public views of the surrounding natural features from some angles, this would be temporary and would contribute to the maritime environment. Therefore, the presence of the ferries would not substantially degrade the character or the quality of public views. Further, the scale and color of vessels of the ferry service would be similar to vessel activity along Redwood Creek and throughout San Francisco Bay; therefore, the visual context along the waterways would not change.

The interim portable restroom facility that would be located at the ferry terminal prior to construction of the visitor-serving uses would be a small facility that would not obstruct views of the waterways, neighboring islands, or the ferry vessels.

The raised site would incorporate landscaping along the transition slopes at the perimeter of the project site to blend with the natural surroundings of the San Francisco Bay and be consistent with the design requirements identified in **Section 3.1.3.1.3**, including taking advantage of the attractive setting and developing the project site in accordance with the Public Access Design Guidelines consistent with the Bay

Plan requirements. The ferry terminal would include a covered access pier and displays of public art consistent with Finding No. 34 and Finding No. 42 of the Port's 2020 Vision Plan, respectively. Additionally, the elevated site would provide new vantage points for scenic views of the Bay, potentially enhancing the visual experience for visitors who come to the ferry terminal and/or use the expanded Bay Trail and improved pedestrian and bicycle connections. There would be a 20-foot green buffer (e.g., trees and drought tolerant plants) along the slope of the southern perimeter of the project site to screen out the industrial uses to the south. The new landscaping would be similar to the existing landscaping in the area to create visual continuity between the project site and surroundings that is more harmonious than the existing conditions of exposed soil and limited vegetation.

While the new Pacific Shores Center maintenance building would be similar in size and design as the existing cinderblock maintenance building and would not detract from or obstruct from the visual character of the Pacific Shores Center, it is assumed that the relocated structure could reduce views of the water from some public locations (e.g., the Bay Trail on the eastern side of the Pacific Shores Center.) However, given the small size of the building and the presence of expansive views available from the public Bay Trail, the relocated maintenance building would not substantially degrade visual character or public views.

The widening of Seaport Boulevard may result in some reduced landscaping between the roadway and the surrounding land uses to the east (the Pacific Shores Center) and west (Port facilities); however, the new bicycle trail and sidewalk would provide continuity in the visual character and would improve public access to the views of the shoreline. Further, there would continue to be a landscape buffer that would limit views of Port operations from Seaport Boulevard. This buffer would also largely obscure views of the relocated railroad tracks from Seaport Boulevard.

Operation of the ferry terminal would not obstruct views of the surrounding scenic resources and it would increase public accessibility to those views through the access improvements and the Bay Trail expansion. This would contribute to the visual character and quality of the project area. Further, views of the project site from much of the surrounding land area would continue to be limited due to existing screening from trees and other industrial/commercial structures and buildings in the vicinity.

Therefore, operation of the ferry terminal and associated facilities would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.2.2 Visitor-Serving Uses

The operation of the visitor-serving uses would consist of a hotel and related facilities, restaurant, and limited office uses. The precise mix of uses, square footage, site design, and building design is unknown at this time and this analysis addresses conceptual maximum build-out. The visitor-serving uses would introduce visually prominent development on the project site that is currently vacant; however, the proposed structures would be similar and consistent in scale and mass to existing structures on nearby properties, such as the Pacific Shores Center to the southeast and the CEMEX marine terminal to the south. This would constitute a visual continuation of the development with the surrounding properties. The hotel building would be a maximum of three stories (e.g., approximately 45 feet). This would be lower than the heights of the adjacent buildings at the Pacific Shores Center which are primarily three- to five-stories tall and up to approximately 80 feet in height, and significantly lower in height than the structures

at the CEMEX marine terminal including silos up to approximately 130 feet in height and other structures that exceed 50 feet. The stand-alone restaurant and office buildings would be single-story buildings. Therefore, even with the raising of the project site to approximately seven feet higher than the existing elevation, the heights of the proposed buildings would be similar to or less than surrounding structures. As shown in **Figure 3.1-23,** the new buildings would be prominent in the view from the project site entrance. However, the project site under the existing conditions lacks visual character and quality and the character and quality would not be further degraded by the new development. Additionally, the portable restroom facility at the ferry terminal would be replaced by a 350-square foot permanent facility when a sewer line is established at the project site for the future visitor-serving uses. Similar to the interim portable restroom facility, the permanent restroom facility would not obstruct views of the waterways, neighboring islands, or the ferry vessels. As shown in **Figure 3.1-24**, the new buildings would also be visible from the Bay Trail, though partially obscured by existing landscaping. While this would result in a partial reduction of views of Redwood Creek and Bair Island, high quality views offshore from the project site and within the Bay Trail towards the north would remain. The project would comply with Policy BE-2.6 of the Redwood City General Plan and would screen commercial service facilities, such as trash bins and loading docks, from public view. Additionally, the visitor-serving uses would include displays of public art consistent with Finding No. 42 of the Port's 2020 Vision Plan. Thus, the presence of the new development would not substantially degrade the visual character or quality of views. Further, the buildings would be located a minimum of one-hundred feet from the water's edge as required by the Bay Plan which would reduce the visual prominence from the Bay Trail.

As shown in **Figure 3.1-25**, the new structures would be visually prominent when viewed from the water and would alter the character of the project site. Although the project site is currently vacant and includes views of the Santa Cruz Mountains in the background, the industrial facilities at the CEMEX marine terminal and the Pacific Shores Center are readily visible providing a developed character to the surroundings. The new buildings would reduce the views of the Santa Cruz Mountains from that vantage point but would not be out of character with the surroundings and would not substantially detract or obstruct the high quality views of the water and Bair and Greco Islands that would remain available from public views from both water and land. Additionally, the conceptual visual simulations do not show building design and colors or landscaping. The addition of those elements would soften the visual prominence and enhance the visual character. In addition, per the Redwood City General Plan goals and policies, such as Goal BE-1 as discussed in **Section 3.1.3.1.3**, the new buildings would be designed to integrate harmoniously with the existing landscape of Redwood Creek and Westpoint Slough, using materials and colors that complement the natural surroundings.

As described above, the public views from Redwood Creek and Westpoint Slough would remain largely intact and the visual character of the surrounding area would be preserved. Additionally, the new development would transform an underutilized vacant site adjacent to the water into a functional space that promotes and enhances public access to the shoreline and the associated scenic visual quality and character. Therefore, operation of the visitor-serving uses would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above for the ferry terminal and visitor-serving uses, the project components would be visually consistent with the nearby development and waterfront park. Further, the proposed project would integrate the operations of the ferry terminal, associated facilities, and visitor-serving uses, resulting in a cohesive development that enhances the visual character of the project site and its surroundings, per the Bay Plan, City, and Port requirements. The proposed project would enhance the visual quality through improved landscaping and access and the introduction of visually compatible structures. The proposed project would maintain the visual continuity of the Bay Trail and the Pacific Shores Center, contributing positively to the overall aesthetic of the area. Further, the addition of the ferry terminal, the Bay Trail extension, and visitor-serving uses would make the site accessible to the public and provide increased opportunities for public viewing of the Redwood City shoreline. Therefore, operation of the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; the impact would be less than significant.

3.1.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.1.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.1.5.3 Impact 3.1-3

Would the proposed project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

3.1.5.3.1 Construction

3.1.5.3.1.1 Ferry Terminal

Lighting and glare associated with the construction of the ferry terminal would be temporary, minimal, and less than that of adjacent uses (e.g., CEMEX marine terminal to the south and the Pacific Shores Center to the east) which contribute to the moderately high levels of ambient night lighting in the surrounding area as shown in **Figure 3.1-19** and **Figure 3.1-20** (Zone LZ3 per Title 24).[13] Temporary light sources during construction would primarily include security lighting, which would be directed inward towards the project site. Construction activities associated with the ferry terminal and related facilities would typically be limited to daytime hours, between 7 AM and 7 PM, Monday through Friday. Nighttime construction activities, should they occur (e.g., to perform utility connections), would be intermittent and temporary but require the use of on-site lighting. The temporary lighting would include floodlights focused on the work area and not onto adjoining properties and would be limited in duration (short-term), and thus would not create a new source of substantial light.

Glare during construction can be caused by unshielded or misdirected lighting sources, or by the temporary existence of reflective surfaces (such as polished metal). Possible sources of daytime glare

[13] Energy Code Ace. 10-114 – Determination of Outdoor Lighting Zones and Administrative Rules for Use. Available: https://www.energycodeace.com/content/10-114-determination-of-outdoor-lighting-zones-and-administr. Accessed March 11, 2025.

during construction include the equipment used. Construction equipment is primarily painted and would not be glare-inducing; it would also be temporary and would not adversely affect day or nighttime views in the area. Therefore, construction of the ferry terminal would not create a new source of substantial glare.

As described above, construction of the ferry terminal would be temporary and would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.1.2 Visitor-Serving Uses

As with construction of the ferry terminal described above, lighting and glare associated with the construction of the visitor-serving uses would be temporary, minimal, and similar to or less than that of the adjacent uses, which, consistent with the site's LZ3 designation, produce moderately high levels of existing night lighting in the area (e.g., the Pacific Shores Center to the south and CEMEX marine terminal to the south). Light sources during construction would primarily include temporary security lighting, which would be directed inward towards the project site. Construction activities associated with the visitor-serving uses would typically occur during daytime hours, between 7 AM and 7 PM, Monday through Friday, and between 8 AM and 5 PM on Saturdays. Should nighttime construction activities be necessary (e.g., to perform utility connections), it would require on-site lighting, but it would be intermittent and temporary. The lighting would include floodlights focused on the work area and would be limited in duration (short-term), and thus would not create a new source of substantial light.

As described above, construction equipment is painted and would not be glare-inducing. Further, it would be temporary and a construction fence that would screen the construction area from surrounding uses would not create glare that could adversely affect day or nighttime views in the area. Therefore, construction of the visitor-serving uses would not create a new source of substantial glare.

As described above, construction of the visitor-serving uses would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, lighting and glare associated with the construction of the combined ferry terminal and visitor-serving uses would be temporary and would not be substantial. It would be similar to or less than the adjacent uses (e.g., the Pacific Shores Center to the southeast and CEMEX marine terminal to the south), which contribute to the moderately high levels of ambient night lighting in the surrounding area (Zone LZ3 per Title 24).[14] Construction of the ferry terminal would occur prior to construction of the visitor-serving uses, thus, during construction of the visitor-serving uses, there would be existing lighting at the project site for the ferry terminal, such as parking lot and security lighting at the ferry terminal, similar to lighting at the adjacent waterfront park and parking lot. The lighting associated with the operation of the ferry terminal in combination with the temporary security lighting and occasional nighttime lighting

[14] EnergyCodeAce. 10-114 – Determination of Outdoor Lighting Zones and Administrative Rules for Use. Available: https://www.energycodeace.com/content/10-114-determination-of-outdoor-lighting-zones-and-administr. Accessed March 11, 2025.

associated with construction of the visitor-serving uses would not be a new source of substantial light that could adversely affect nighttime views.

As described above, construction equipment is painted and would not be glare-inducing. Further, a construction fence would screen the construction area for the visitor-uses from surrounding uses. Construction of the proposed project, including construction of the visitor-serving uses which would occur when the ferry terminal is operational, would be temporary and would not create a new source of substantial glare. Therefore, construction of the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.2 Operations

3.1.5.3.2.1 Ferry Terminal

The operations of the ferry terminal would include lighting for various components such as the access pier, gangway and float, walkways, entrance and passenger waiting area, as well as lighting for the surface parking lot, access road, along the Seaport Boulevard corridor improvements, and the Bay Trail. The lighting would be similar to lighting levels to the east, including the Pacific Shores Center parking areas and walkways and the waterfront park and public parking lot, and less than lighting at the Port facilities to the south where nighttime port operations occur. The new lighting would also comply with Redwood City's Program BE-15 (Title 24 Lighting Zone), which requires that all new development and redevelopment use low mounted, downward casting exterior lighting to reduce light trespass onto adjacent properties. As such, outdoor lighting would be directed downward and shielded to avoid the production of off-site light.

Light emanating from vessels to/from the new ferry terminal, primarily during early morning, evening hours, or foggy conditions, would also be similar to other vessels in the San Francisco Bay. However, due to the transitory nature of ferry operation, ferry operations would not increase the existing lighting to an extent that nighttime views would be affected.

Glare can result from development and associated parking areas that contain reflective materials such as glass and highly polished surfaces. This may include façade windows, car mirrors and windshields, and the water (which can have a transitory glare condition from certain perspectives during the day). The ferry terminal would include the use of non-reflective building materials such as wood, cement, concrete, non-polished metal, and semi-transparent aluminum for the gangway. As such, operation of the proposed project would not incorporate substantial amounts of reflective building materials. The surface parking lot would be interior to the project site and largely shielded from view from off-site locations. Landscaping on the eastern and southern perimeter of the parking lot and trees within the lot would further reduce visibility and the potential for glare to occur. Glare would potentially be created from onboard lighting of the ferries or the reflection of light off vessel surfaces; however, the impact would be short-term and negligible as ferries would idle for a short period for passenger embarking and disembarking.

Levels and types of light and glare would be consistent with the proximate area, and the operation of the ferry terminal would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.2.2 Visitor-Serving Uses

The visitor-serving uses (i.e., hotel, restaurant, and office building) would include new sources of light for nighttime safety and security and interior building lighting with lights illuminating the new building and walkways. The operation of these uses would result in an increase in the number of light sources currently within the project site; however, the area to the east and south is already developed with existing sources of light, including building lighting at the Pacific Shores Center and lighting for nighttime operations at the Port. These new lighting sources would blend with existing sources of ambient lighting and would not create a new source of substantial light. Further, the project would comply with the City's General Plan Program BE-15 (Title 24 Lighting Zone) lighting requirements to use low mounted, downward casting exterior lighting to reduce light trespass onto adjacent properties. As such, outdoor lighting would be directed downward and shielded to avoid the production of off-site light and glare. Thus, while additional lighting sources would be included on the project site, nighttime lighting conditions on and near the project site would not change substantially with operation of the visitor-serving uses. Operation of the visitor-serving uses would not create a new source of substantial light that would adversely affect day or nighttime views in the area.

The new buildings would include the use of non-reflective building materials for the building façades such as wood, cement, plaster, concrete, non-polished metal, and non-mirrored glass. Project signage would not use reflective materials by design, because they would detract from the visibility of the signage. As such, operation of the proposed project would not incorporate substantial amounts of reflective building materials. It is assumed new parking for the visitor-serving uses would primarily be enclosed on the ground-floor of the hotel. However, if new surface parking is provided, it would be shielded from off-site views by the buildings, existing trees along the boundary with the waterfront park, and new parking landscaping providing in compliance with Zoning Ordinance Article 30, Section 30.18. Therefore, the visitor-serving uses would not create a new source of glare visible from surrounding areas.

As described above, operation of the visitor-serving uses would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, the project components would result in new sources of light that would increase the overall lighting level at the project site compared to existing conditions, which provide a moderately high level of existing night lighting in the surrounding area. The levels and types of light for the project components would be directed inward to the project and would be consistent with lighting in the proximate area. Thus, the combined lighting for the ferry terminal and the visitor-serving uses would not create a new source of substantial light that would adversely affect day or nighttime views in the area. Similarly, as described above, the ferry terminal and visitor-serving uses would use non-reflective building materials, and the buildings, signage, and other uses, including ferries and surface parking, would not be a substantial source of glare for the proposed project.

The levels and types of light and glare would be consistent with the proximate area and the operation of the combined ferry terminal and visitor-serving uses would not create a new source of substantial light or glare. Therefore, operation of the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; the impact would be less than significant.

3.1.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.1.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.1.5.4 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

Because the proposed project is a waterfront project, the geographic scope associated with cumulative aesthetic and visual resource impacts is the Port of Redwood City and surrounding areas, including the Redwood City Harbor Channel, Bair Island, Greco Island, Westpoint Harbor, the Bay Trail, and the waterfront park and Pacific Shores Center east of the project site. The Port and surrounding areas are developed with a variety of commercial, recreational, and industrial uses, including marinas, hotels, retail, restaurants, offices, and bicycle and pedestrian paths. The primary visual resources within the Port and surrounding areas are Bair Island, Greco Island, Redwood Creek, Westpoint Sough, the Santa Cruz Mountains, and the San Francisco Bay. The Redwood City General Plan does not list any scenic vistas within the project site or oriented towards the project site.

As discussed in **Section 3.1.5.1**, construction and operation of the proposed project would not result in substantial adverse effects on scenic vistas. While the new development on the raised project site would interrupt views of the adjacent waterways, marsh islands, and mountains from certain public locations, extensive views of these resources would remain from other nearby public locations, and these views are not designated scenic vistas. The proposed project would improve public access to the surrounding views by creating a variety of new public access opportunities at a waterfront property that is currently inaccessible to the public. Therefore, the proposed project would not result in a cumulatively considerable contribution to a cumulative impact related to scenic vistas.

The Port and surrounding areas are expected to further develop over the long-term as the population of the City increases. Development in the Port, including the proposed project, would adhere to the Port's 2020 Vision Plan, which emphasizes the importance of protecting the environment, including aesthetic resources, as well as the Bay Plan, which provides policies for protecting and enhancing the visual quality of development around the Bay. The 2020 Vision Plan recommends concentrating the development of commercial and residential uses south of the Omni Terminal and maintaining operating nodes for dry bulk and scrap processing south of the project site. Additionally, the 2020 Vision Plan includes recommendations to integrate public art along the Port's shoreline and connect the Bay Trail to the Portside commercial real estate area, which would enhance public access to views of the Bay and provide

aesthetic benefits. The Bay Plan's aesthetic policies include recommendations to build shoreline development in clusters to preserve open space and permit more frequent views of the Bay. New development projects in the Port and surrounding areas would also be required to comply with building height and intensity requirements and design standards set forth in the Redwood City Zoning Ordinance and the Redwood City General Plan. Therefore, new development projects would be required to conform to the general character of other structures in the vicinity and incorporate high design standards consistent with the coastal ambiance of the area. With adherence to the Port's 2020 Vision Plan, the Bay Plan, and the City's General Plan and Zoning Ordinance, future development, including the proposed project, within the Port would provide a similar aesthetic quality as existing conditions and potentially enhance the aesthetic character of the Port. Accordingly, the cumulative change in the character and quality of the area would be positive as consistency in architectural styling and use of high-quality construction techniques and materials would result in a coherent visual character. Therefore, the proposed project would not result in a cumulatively considerable contribution to a cumulative impact related to a substantial degradation of the existing visual character or quality of public views.

Regarding lighting, although the proposed project and development in surrounding areas would increase lighting in the project area compared to existing conditions, the proposed project and future projects would be subject to the lighting standards of the Redwood City Zoning Ordinance and General Plan, which require new development to be in compliance with Title 24 Lighting Zone requirements and reduce light trespass onto adjacent properties. With adherence to these requirements, incremental increases in ambient lighting would be minimized such that nighttime views would not be adversely affected. Therefore, the proposed project would not result in a cumulatively considerable contribution to a cumulative impact related to lighting.

Regarding glare, as with the proposed project, it is anticipated that future development within the vicinity of the project site would be subject to discretionary review to ensure that building materials to be utilized would not create substantial glare impacts which would adversely affect day or nighttime views in the area. Therefore, cumulative impacts related to glare would be less than significant.

Therefore, implementation of the proposed project would result in benefits to the aesthetic qualities of the project site and surrounding areas. The forecasted growth and increased development within and near the Port, coupled with the proposed project, would not result in significant impacts related to aesthetics. The proposed project's contribution would not be cumulatively considerable.

3.1.5.4.1 Mitigation Measures

No mitigation is required.

3.1.5.4.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative aesthetics impacts would be less than significant.

3.1.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts related to aesthetics associated with construction and operation of the proposed project.

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Section 3.2
Air Quality

3.2.1 Introduction

This section describes the regulatory framework and existing conditions in the project area related to air quality, and the impacts from construction and operation of the proposed project. Air pollutants are discussed in terms of "emissions" and "concentrations." Emissions refers to the actual quantity of pollutant, measured in pounds per day or tons per year. Concentrations refers to the amount of pollutant material per volumetric unit of air; concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu g/m^3$). Criteria air pollutant emissions modeling results for the proposed project are provided in Appendix B of this Draft EIR. This section includes an evaluation of human health risk associated with air pollutant emissions from the proposed project, based on more detailed information included in Appendix B. Greenhouse gas (GHG) emissions impacts are discussed separately in Section 3.7 of this Draft EIR. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.2.2 Methodology

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts would occur with implementation of the proposed project. The Bay Area Air District (Air District)[1] has published the California Environmental Quality Act (CEQA) Air Quality Guidelines,[2] used in this analysis, that provide local governments with guidance for analyzing and mitigating air quality impacts.

Regional Emissions Modeling

The proposed project criteria air pollutant emissions inventory was modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1 and includes the following sectors:

- **On-Road Transportation.** Transportation emissions are based on the vehicle miles traveled (VMT) estimates for the proposed project (see Appendix H, Transportation Study Report, of this Draft EIR). The fleet mix for the ferry terminal vehicle traffic, being a transit-oriented facility, was assumed to be 100 percent passenger vehicles, and the fleet mix for the future visitor-serving uses was assumed to consist of 97 percent passenger vehicles and 3 percent trucks.
- **Ferry Vessels.** Vessel emissions are based on the travel time and route schedules identified in Section 2.5.4.1 of this Draft EIR, vessel fuel consumption provided by the Water Emergency Transportation Authority (WETA), and vessel emission factors from the California Air Resources Board's (CARB's) OFFROAD database.

[1] The Bay Area Air District is a streamlined name change announced by the Bay Area Air Quality Management District (BAAQMD) in January 2025. Documents published by the Air District that are referenced in this Draft EIR are attributed to BAAQMD.

[2] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

- **Area Sources.** Area sources generated from use of consumer products, cleaning supplies, landscaping equipment are based on CalEEMod default emission rates and on the assumed building square footage.
- **Energy.** The energy rates were calculated based on CalEEMod defaults and energy load calculations provided by COWI.
- **Construction.** The project-related construction emissions are based on information provided by the Port of Redwood City and CalEEMod defaults. Raising the site elevation was modeled for the period between October 2025 and May 2026, construction of the ferry terminal, access and other associated improvements was modeled for the period between June 2026 and September 2026, and construction of the visitor-serving uses was modeled for the period between October 2026 and October 2028. The construction equipment mix used in the model reflects information provided by the Port of Redwood City and supplemented with CalEEMod defaults for missing values, such as equipment horsepower and load factor. It should be noted that the modeled construction duration is shorter than that identified in Chapter 2, Project Description (Section 2.5.3, Project Construction) of this Draft EIR, because this analysis assumes that construction of the ferry terminal, demolition and relocation and reconstruction of the maintenance building, roadway improvements to Seaport Boulevard, and the relocation and abandonment of the railroad along Frontage Road would occur simultaneously for a conservative assessment of potential air quality and health risk impacts. Because equipment and vehicle fuel efficiency standards improve year over year and older models are retired and newer models acquired for construction fleets, given that construction activities would occur in later years than what is modeled herein (i.e., commencing in 2027), emissions would be lower than what is disclosed in this analysis. Therefore, earlier construction years utilized in the modeled emission results reflect a conservative analysis for potential construction emissions impacts.

Construction Health Risk Assessment

The Health Risk Assessment (HRA) included in Appendix B uses the emissions quantified for the regional criteria air pollutants described above and uses Lakes Environmental AERMOD View and CARB's Hot Spots Analysis & Reporting Program (HARP) to quantify pollutant concentrations and subsequent health risk. To format the emission estimates to be used in HARP, construction emissions for all landside improvements were calculated for total pounds of emissions per year to occur during Phase 1 (ferry terminal and improvements) and Phase 2 (future visitor-serving uses) and normalized for pounds per hour for working hours across the respective phase. Diesel particulate matter (DPM) emissions were based on the CalEEMod construction results, using exhaust coarse inhalable particulate matter (PM_{10}) emissions. The fine inhalable particulate matter ($PM_{2.5}$) emissions were taken from the CalEEMod output for $PM_{2.5}$ exhaust and fugitive dust. All waterborne construction activity emissions were calculated using CARB's OFFROAD2021, version 1.0.7, and the proposed construction schedule. The HRA identifies the average annual $PM_{2.5}$ concentration and health risk for off-site receptors separately for each construction scenario: the ferry terminal, and the future visitor-serving uses. As identified in **Section 3.2.3.3**, the nearest receptors to the project site include workers adjacent to the site to the south and southeast and liveaboards at the Port of Redwood City Municipal Marina and the Westpoint Harbor, approximately 1 mile to the southwest and 2,000 feet to the east, respectively. These receptors were considered in the HRA. The results of the HRA are contained in Appendix B.

Operations Health Risk Assessment

Operational emissions for all landside improvements were calculated consistent with construction emissions; total pounds of emissions per year and normalized for an hourly rate, both to be entered into HARP. On-site operational mobile (e.g., vehicles) source emissions for landside improvements were calculated assuming a 0.2-mile vehicle travel distance to represent on-site travel from visitors and employees (i.e., visitors and employees are assumed to travel approximately 1,000 feet within the site in their vehicles when they arrive and approximately 1,000 feet within the site when they leave even though the project site is approximately 700 feet deep),[3] using the latest version of CalEEMod, Version 2022.1. DPM emissions were based on the CalEEMod results, using exhaust PM_{10} emissions. The $PM_{2.5}$ emissions were taken from the CalEEMod output for $PM_{2.5}$ exhaust and fugitive dust. All waterborne activity (e.g., ferry) emissions were calculated using CARB's OFFROAD2021, version 1.0.7, and the proposed ferry operations schedule described in Section 2.5.4.1 in Chapter 2. The HRA identifies the average annual $PM_{2.5}$ concentration and health risk for off-site receptors separately for each operational scenario: the ferry terminal while future visitor-serving uses are being constructed, and full operation. The HRA further identifies the combined risk from overlap of the ferry terminal operation and construction of the future visitor-serving uses. As identified in **Section 3.2.3.3**, the nearest receptors to the project site include workers adjacent to the site to the south and southeast and liveaboards at the Port of Redwood City Municipal Marina and the Westpoint Harbor, approximately 1 mile to the southwest and 2,000 feet to the east, respectively. In addition, worker receptors are present in businesses adjacent to the San Francisco and Oakland ferry terminals near where ferries would idle during operation. These receptors were considered in the HRA. The modeling assumptions and calculation results for the HRA are provided in Appendix B.

3.2.3 Environmental Setting

3.2.3.1 Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, $PM_{2.5}$, and Pb are "criteria air pollutants," which means that National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for them. ROG and nitrogen oxides (NO_X) are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. **Table 3.2-1** summarizes the potential health effects associated with the criteria air pollutants.

[3] This is a conservative assumption that accounts for internal circulation, such as accessing a parking space or the drop-off/pick-up area.

Table 3.2-1 Criteria Air Pollutant Health Effects Summary

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	▪ Chest pain in patients with heart disease ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels	▪ Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation	▪ Atmospheric reaction of ROG with nitrogen oxides (NO_x) in sunlight
Nitrogen Dioxide (NO_2)	▪ Increased response to allergens ▪ Aggravation of respiratory illness	▪ Same as CO sources
Particulate Matter (PM_{10} and $PM_{2.5}$)	▪ Hospitalizations for patients with advanced heart disease ▪ Emergency room visits for asthma ▪ Premature death	▪ Cars and trucks (particularly diesels) ▪ Fireplaces and woodstoves ▪ Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO_2)	▪ Aggravation of respiratory illness (e.g., asthma and emphysema) ▪ Reduced lung function	▪ Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	▪ Behavioral and learning disabilities in children ▪ Nervous system impairment	▪ Contaminated soil

Sources: California Air Resources Board (CARB). 2025. Common Air Pollutants webpage. Available: https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed July 28, 2025; Bay Area Air Quality Management District. February 2024. Bay Area Emissions Inventory, Summary Report for Criteria Air Pollutants. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/bay-area-emissions-inventory-summary-report.pdf?rev=aab699bc8277450598292f0537b2c2a7&sc_lang=en.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and death.[4]

[4] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

- **Nitrogen Oxides (NO_X)** are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.[5] There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at NO_2 concentrations below 0.3 ppm.[6]
- **Sulfur Dioxide (SO_2)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere because of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur contents and do not release significant quantities of SO_2. When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing), even at lower concentrations. Additionally, when combined with particulates, SO_2 may injure lung tissue.[7]
- **PM_{10}** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. In the San Francisco Bay Area Air Basin (SFBAAB), most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Motor vehicles are currently responsible for about half of the particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.[8]

[5] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.
[6] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.
[7] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.
[8] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

- **$PM_{2.5}$** is another form of particulate matter that has an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch). Fine particulate matter originates from a variety of sources, including fossil fuel combustion, residential wood burning and cooking, and natural sources, such as wildfires and dust. As mentioned above, extended exposure to particulate matter can cause negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function. $PM_{2.5}$ studies have also found harm to the cardiovascular system and impacts on the brain, such as reduced cognitive function.

  Local jurisdictions have the option of developing community risk reduction plans (CRRPs) to cumulatively reduce community-wide $PM_{2.5}$ concentrations by following a comprehensive plan. Stationary source screening maps contain all the facilities in the Bay Area where a permit has been issued and that emit one or more toxic air contaminants (TACs). These stationary source screening maps can be used as a basis for community baseline conditions and to evaluate screening-level health risk impacts using the cavity effects equation. An alternative screening methodology is to use CARB's gas station screening tool to estimate cancer risk and chronic/acute hazards from gas station emissions.[9]

- **Ozone (O_3)** is a key ingredient of "smog" and is a gas that is formed when ROGs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma; reduce lung function; and inflame the linings of the lungs. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high O_3 levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[10]

- **Reactive Organic Gases (ROGs) and Volatile Organic Compounds (VOCs)**[11] are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no NAAQS or CAAQS established for ROGs. However, because they contribute to the formation of O_3, the Air District has established a significance threshold for this pollutant.

[9] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[10] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[11] Reactive organic gases (ROGs) and volatile organic compounds (VOCs) are often used interchangeably in the context of ozone precursor pollutants; however, ROGs and VOCs are not the same. ROGs refer to a type of VOC; therefore, all ROGs are VOCs, but not all VOCs are ROGs. For the purposes of this analysis, ROGs are assessed because the Bay Area Air District provides significance thresholds specifically for ROGs.

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of Pb emissions have historically been mobile and industrial sources. As a result of the phasing out of leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest levels of Pb in the air are generally found near Pb smelters. Other stationary sources are waste incinerators, utilities, and Pb-acid battery manufacturers.[12]

Toxic Air Contaminants

People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems.[13] By the last update to the TAC list in 2007, CARB had designated over 200 compounds as TACs.[14] Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. Most of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory symptoms and may exacerbate existing allergies and asthma symptoms.[15]

3.2.3.2 Regulatory Framework

Ambient Air Quality Standards have been adopted at the State and federal levels for criteria air pollutants. In addition, both the State and federal government regulate the release of TACs. The proposed project is subject to the rules and regulations imposed by the Air District, the CAAQS adopted by CARB, and NAAQS adopted by the U.S. Environmental Protection Agency (USEPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized in this section.

[12] California Air Resources Board (CARB). April 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Available: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[13] National Institute of Environmental Health Sciences (NIEHS). 2025. Air Pollution and Your Health webpage. Available: https://www.niehs.nih.gov/health/topics/agents/air-pollution. Accessed February 25, 2025.

[14] California Air Resources Board (CARB). 2025. CARB Identified Toxic Air Contaminants. Available: https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants. Accessed July 17, 2025.

[15] U.S. Environmental Protection Agency (USEPA). May 2002. Health Assessment Document for Diesel Engine Exhaust. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality. EPA/600/8-90/057F. Available: https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060.

3.2.3.2.1 Federal and State

Ambient Air Quality Standards

The federal Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the U.S. The CAA allows states to adopt more stringent standards or to include other pollution specifications. The California CAA, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practical date. The CAAQS can be more restrictive than the NAAQS.

The NAAQS and CAAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.[16]

Both California and the federal government have established health-based standards for seven air pollutants, which are shown in **Table 3.2-2**. These pollutants are O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Table 3.2-2 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	NA	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)[4]	Annual Arithmetic Mean	NA	0.010 ppm[5]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	NA	

[16] U.S. Environmental Protection Agency (USEPA). March 20, 2025. Patient Exposure and the Air Quality Index website. Available: https://www.epa.gov/ozone-pollution-and-your-patients-health/patient-exposure-and-air-quality-index. Accessed August 25, 2025.

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Inhalable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	NA	Dust and fume-producing construction, industrial, and agricultural operations, vehicle and equipment fuel combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Inhalable Fine Particulate Matter ($PM_{2.5}$)[6,7]	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	NA	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	NA	Present source: Pb smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Rolling 3-Month Average		0.15 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	NA	Industrial processes.
Visibility-Reducing Particles[8]	8 hours	ExCo = 0.23/km visibility of 10≥ miles	NA	Vehicle and equipment fuel combustion, power plants, industrial processes, and vegetation burning.
Hydrogen Sulfide[9]	1 hour	0.03 ppm	NA	Hydrogen sulfide can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride[10]	24 hours	0.01 ppm	NA	Plastics and chlorinated solvent production and decomposition.

Sources: California Air Resources Board (CARB). July 16, 2024. Ambient Air Quality Standards. Available: https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.
U.S. Environmental Protection Agency (USEPA). NAAQS Table webpage. Available: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed July 17, 2025.
Notes:
[1] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
[2] National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
[3] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.
[4] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm. In December 2024, the USEPA revised the SO_2 NAAQS to designate the annual standard from a primary standard to a secondary standard.
[5] SO_2 annual NAAQS is a secondary standard; no primary NAAQS exists for annual SO_2.

[6] On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m³ to 9 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary), secondary annual $PM_{2.5}$ standard, and PM_{10} standards (primary and secondary) were retained.
[7] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
[8] Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
[9] Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
[10] Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is generated by making polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.
Key: ExCo = Extinction Coefficient; km = kilometer; ppm = parts per million; NA = not applicable - standard has not been established for this pollutant/duration by this entity; µg/m³ = micrograms per cubic meter.

California has also adopted a host of other regulations that reduce criteria pollutant and GHG emissions.

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduced emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Heavy-Duty (Tractor-Trailer) GHG Regulation.** The tractors and trailers subject to this regulation must either use USEPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper-cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. This rule has criteria air pollutant co-benefits.
- **California Code of Regulations (CCR) Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally and non–federally regulated appliances. These regulations and standards reduce criteria air pollutants associated with indoor natural gas use from appliances.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. These standards reduce criteria air pollutants associated with indoor natural gas use from appliances.
- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. This Code reduces criteria air pollutants associated with indoor natural gas use from appliances.

Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health."[17] A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal CAA (42 US Code Section 7412[b]) is a TAC. Under State law, the California EPA, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate "toxics best available control technology" to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rule to limit TAC emissions:

- **13 CCR Chapter 10 Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.

3.2.3.2.2 Regional

Bay Area Air District (Air District)

The Air District is the agency responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the SFBAAB. Air quality conditions in the SFBAAB have improved significantly since the Air District was created in 1955. The Air District prepares air quality management plans (AQMPs) to attain NAAQS and CAAQS in the SFBAAB. The Air District prepares O_3 attainment plans for the National O_3 standard and clean air plans for the California O_3 standard. The Air District prepares these AQMPs in coordination with the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) to ensure consistent assumptions about regional growth.

[17] California Health and Safety Code, Division 26, Part 2, Chapter 3.5, Article 2, Section 39655. 1993. Available: https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=39655&lawCode=HSC.

2017 Clean Air Plan

The Air District adopted the 2017 "Clean Air Plan: Spare the Air, Cool the Climate" (2017 Clean Air Plan)[18] on April 19, 2017, making it the most recently adopted AQMP. The 2017 Clean Air Plan incorporated significant scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The Air District's Clean Air Plan is incorporated herein by reference and is available at https://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans. The 2017 Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues to provide the framework for SFBAAB to achieve attainment of the CAAQS and NAAQS. The 2017 Clean Air Plan updates the Bay Area's O_3 Plan,[19] which is based on the "all feasible measures" approach to meet the requirements of the California CAA. It sets a goal of reducing health risk impacts to local communities by 20 percent between 2015 and 2020. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following goals:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy was developed to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of O_3, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources, (2) transportation, (3) energy, (4) agriculture, (5) natural and working lands, (6) waste management, (7) water, (8) super-GHG pollutants, and (9) buildings.

The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel, and high-carbon goods and services.

[18] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[19] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.[20]

The Clean Air Plan addresses four categories of pollutants: ground-level ozone and its key precursors, ROG and NO_X; PM, primarily $PM_{2.5}$ and precursors to secondary $PM_{2.5}$; air toxics; and GHG emissions. The control measures are categorized based on the economic sector framework including stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water measures.

The Clean Air Plan also includes cumulative emission trends, which generally explains that air quality has improved over the last several decades despite substantial increases in economic and population growth. The number of days per year when the region exceeds the State 1-hour ozone standard has been decreasing steadily over the past 30 years. However, the data show large fluctuations in the number of exceedance days from year to year. For example, from 1996 to 1997 the number of exceedances dropped from 45 to 10, and then rose to 29 in 1998. Most of this short-term fluctuation from one year to the next is due to variation in weather patterns and wildfires. Averaging the data across several years reduces the weather-related short-term variation. The 3-year rolling average in Figure 2-11 of the Clean Air Plan shows a relatively steady downward trend in exceedances, from an average of 20 or more exceedance days in most years prior to 2000 to fewer than 10 days in the past decade.

The Bay Area has also achieved significant reductions in ambient concentrations of both $PM_{2.5}$ and PM_{10} in recent years through efforts to decrease emissions from key emissions sources, such as motor vehicles and wood burning. Figure 2-13 of the Clean Air Plan shows trends relative to the national and State PM standards. PM_{10} levels have been greatly reduced since 1990. Peak concentrations have declined by 60 percent, and annual average values have declined by 50 percent. $PM_{2.5}$ has only been measured since 1999, so long-term quantitative trend analysis is currently limited. However, concentrations of $PM_{2.5}$ have been reduced since 1999 in relation to both the annual standard and the 24-hour standard. Bay Area 24-hour $PM_{2.5}$ levels have been cut in half since 1999.

The Bay Area has also benefited from dramatic reductions in public exposure to toxic air contaminants. Based on ambient air quality monitoring, and using Office of Environmental Health Hazard Assessment (OEHHA) cancer risk factors, the estimated lifetime cancer risk for Bay Area residents, over a 70-year lifespan from all TACs combined, declined from 4,100 cases per million in 1990 to 690 cases per million people in 2014, as shown in Figure 2-14 of the Clean Air Plan. This represents an 83 percent decrease between 1990 and 2014.

Future cumulative projections are described in Chapter 5 of the Clean Air Plan. In aggregate, the proposed control measures are expected to reduce emissions of ROG by 11 tons per day, NO_X by 9.3 tons per day, and $PM_{2.5}$ by 3.1 tons per day in 2030.

[20] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

Community Air Risk Evaluation Program

The Air District's Community Air Risk Evaluation (CARE) Program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area, primarily DPM.[21] The last update to this program was in 2014. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4 percent of the cancer risk-weighted emissions, and benzene contributed 3 percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). Overall, cancer risk from TAC dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for State diesel regulations and other reductions.[22]

The major contributor to acute and chronic non-cancer health effects in the SFBAAB is acrolein. Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports. Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, the Air District does not conduct health risk screening analysis for acrolein emissions.[23]

Assembly Bill 617 Community Action Plans

AB 617 (C. Garcia, Chapter 136, Statues of 2017) was signed into law in July 2017 to develop a new community-focused program to more effectively reduce exposure to air pollution and preserve public health in environmental justice communities. AB 617 directs CARB and all local air districts to take measures to protect communities disproportionally impacted by air pollution through monitoring and implementing air pollution control strategies.

On September 27, 2018, CARB approved the Air District's list of recommended communities for monitoring and emission reduction planning. The State approved communities for Year 1 of the program as well as identifying communities for Years 2 to 5 of the program. Bay Area recommendations included all the CARE areas, areas with large sources of air pollution (e.g., refineries, seaports, and airports), areas identified via Statewide screening tools as having pollution and/or health burden vulnerability, and areas with low life expectancy as indicated below.[24]

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[21] Bay Area Air Quality Management District. 2023. Community Air Risk Evaluation Program website. Available: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program. Accessed August 26, 2025.

[22] Bay Area Air Quality Management District. 2021. BAAQMD Air Toxics Control Programs Health Risk Assessment Guidelines. Available: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_hraguidelines-pdf.pdf?la=en.

[23] Bay Area Air Quality Management District. 2021. BAAQMD Air Toxics Control Programs Health Risk Assessment Guidelines. Available: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_hraguidelines-pdf.pdf?la=en.

[24] Bay Area Air Quality Management District. April 19, 2019. AB 617 Fact Sheet. San Francisco Bay Area Community Health Protection Program. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/2019_0325_ab617onepager-pdf.pdf?la=en&rev=9f6dcd6de8854fd9853ff0498c6bbdff.

- Year 1 Communities:
  - West Oakland. The West Oakland community was selected for the Air District's first Community Action Plan. In 2017, cancer risk from sources in West Oakland (local sources) was 204 in a million. The primary sources of air pollution in West Oakland include heavy trucks and cars, port and rail sources, large industries and, to a lesser extent, other sources such as residential sources (i.e., wood burning). The majority (over 90 percent) of cancer risk is from DPM.
  - Richmond. Richmond was selected for a community monitoring plan in Year 1 of the AB 617 program. The Richmond area is in western Contra Costa County and includes most of Richmond and portions of El Cerrito. It also includes communities just north and east of Richmond, such as San Pablo and several unincorporated communities, including North Richmond. The primary goals of the Richmond monitoring effort are to leverage historical and current monitoring studies, better characterize the area's mix of sources, and more fully understand the associated air quality and pollution impact.
- Year 2 to 5 Communities: East Oakland/San Leandro, Eastern San Francisco, the Pittsburg-Bay Point area, San Jose, Tri-Valley, and Vallejo are identified for monitoring and community emission reduction action in Years 2 to 5 of the AB 617 program.[25]

Air District Rules and Regulations

Regulation 7, Odorous Substances

The Air District's Regulation 7, Odorous Substances,[26] places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under District Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under the Air District's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.[27]

Other Air District Regulations

In addition to the plans and programs described above, the Air District administers several specific regulations on various sources of pollutant emissions that would apply to the proposed project:

- Regulation 2, Rule 2, Permits, New Source Review
- Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants

[25] Bay Area Air Quality Management District. April 19, 2019. AB 617 Fact Sheet. San Francisco Bay Area Community Health Protection Program. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/2019_0325_ab617onepager-pdf.pdf?la=en&rev=9f6dcd6de8854fd9853ff0498c6bbdff.

[26] Bay Area Air Quality Management District. 1982. Regulation 7 - Odorous Substances. Available: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-7-odorous-substances/documents/rg0700.pdf?rev=5055afaafe03462385ea2f1e4b7ee154&sc_lang=en.

[27] Bay Area Air Quality Management District. 2011. Regulation 1 - General Provisions and Definitions. Available: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-1-general-provisions--definitions/documents/rg0100.pdf?rev=10ed7ed0ba0b4256b07a358652c48837&sc_lang=en.

- Regulation 2, Rule 6, Permits, Major Facility Review
- Regulation 6, Rule 1, General Requirements
- Regulation 6, Rule 2, Commercial Cooking Equipment
- Regulation 8, Rule 3, Architectural Coatings
- Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Nitrogen Oxides from Natural Gas-Fired Furnaces, Boilers, and Water Heaters

The Air District adopted amendments to Regulation 9, Inorganic Gaseous Pollutants, Rule 4, Nitrogen Oxides from Natural Gas-Fired Furnaces (Rule 9-4) and Rule 6, Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters (Rule 9-6). Space- and water-heating appliances generate a large portion of NO_X emissions from sources in the Bay Area. NO_X is a key criteria pollutant as a precursor to O_3 and secondary particulate matter (PM) formation. The amendments require more stringent NO_X emission standards for space- and water-heating appliances within the Air District's jurisdiction starting in year 2023 and would substantially reduce NO_X emissions from these appliances commonly found in single-family homes and commercial applications.[28]

The amendments to Rules 9-4 and 9-6 include the following elements:

- Sales and installation of smaller water heaters and boilers (below 75,000 British thermal units (Btu/hour) must be zero emission, starting in 2027.
- Sales and installation of furnaces (heat input rate less than 175,000 Btu/hour) must be zero emission starting in 2029.
- Sales of larger water heaters and boilers (between 75,000 and 2 million Btu/hour) must be zero emission starting in 2031.
- Existing appliances can remain in operation, but the rule would apply once they need replacement.

Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

The Air District's basic best management practices (BMPs)[29] for reducing construction-related emissions of uncontrolled fugitive dust (coarse inhalable particulate matter [PM_{10}] and fine inhalable particulate matter [$PM_{2.5}$]) would apply to the proposed project and include the following measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

[28] Bay Area Air Quality Management District. 2025. Regulation 9 Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters - 2023 Amendment (Current) webpage. Available: https://www.baaqmd.gov/rules-and-compliance/rules/reg-9-rule-6-nitrogen-oxides-emissions-from-natural-gasfired-water-heaters. Accessed February 25, 2025.

[29] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the Port of Redwood City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

City/County Association of Governments of San Mateo County

The City/County Association of Governments of San Mateo County (C/CAG) is the congestion management agency for San Mateo County. C/CAG is tasked with developing a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision-making and air quality plans. C/CAG's latest congestion management program (CMP) is the 2023 San Mateo Congestion Management Program, adopted October 2023.[30] C/CAG's countywide transportation model must be consistent with the regional transportation model developed by the MTC with ABAG data. The countywide transportation model is used to help evaluate cumulative transportation impacts of local land use decisions on the CMP system. In addition, C/CAG's updated CMP includes multimodal performance standards and trip reduction and transportation demand management strategies consistent with the goal of reducing regional VMT in accordance with SB 375.

Elements of the 2023 CMP include:

- Roadway System. Establish and maintain a specific system of highways and roadways for which traffic level of service (LOS) standards apply.
- Traffic LOS Standards. Establish LOS standards for CMP's roadway systems and monitor LOS on the CMP network biennially.
- Performance Element. Establish performance measures to evaluate current and future multimodal system performance for the movement of people and goods. For C/CAG, this includes the four designated performance measures: LOS, Multi-Modal Travel Times, Pedestrian and Bicycle Improvements, and Ridership/Person Throughput for Transit.

[30] City/County Association of Governments of San Mateo County. October 2023. 2023 San Mateo County Congestion Management Program. Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf.

- Trip Reduction and Travel Demand Element. Promote alternative transportation methods to reduce traffic congestion, improve a county's jobs/employed residents balance, and implement transportation demand management (TDM) strategies.
- Land Use Impact Analysis Program. Analyze the impacts of land use decisions made by local jurisdictions on the regional transportation system (both highways and transit).
- Seven-Year Capital Improvement Program (CIP). Include a seven-year CIP to maintain or improve traffic LOS and transit performance.
- Other Items. In addition to these elements, the CMP must include a uniform database and a computer-based transportation model that will be used to determine the quantitative impacts of proposed or planned land developments on a county's transportation system, as well as monitoring the implementation of the CMP elements in alignment with the CMP's requirements and recommendations.

Plan Bay Area 2050+

MTC and ABAG adopted Plan Bay Area 2050 on October 21, 2021.[31] Plan Bay Area 2050+,[32] adopted in March 2026, is a limited and focused update of the Plan Bay Area 2050. Plan Bay Area 2050+ provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375, which is described further in Section 3.7, Greenhouse Gas Emissions, of this Draft EIR. Strategies to reduce GHG emissions include focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes, which also result in reductions in criteria air pollutant generation from reduced vehicle use. To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area 2050+ land use concept plan for the region concentrates most of new population and employment growth in the region in Growth Geographies, including Priority Development Areas (PDAs). PDAs are areas generally near existing job centers or frequent transit that are locally identified for housing and job growth. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG and criteria air pollutant emissions reductions.

3.2.3.2.3 Local

Redwood City Conditions of Approval (COA) and Standard Development Requirements (SDR)

The City has Conditions of Approval (COA) and Standard Development Requirements (SDR) that apply to all projects requiring City approvals and include dust control BMPs to address construction-related fugitive dust. The City's construction-related COAs and SDR include the following:[33]

[31] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). October 2021. Plan Bay Area 2050. Available: https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

[32] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[33] City of Redwood City. No Date. Conditions of Approval. Available: https://files.ceqanet.opr.ca.gov/252984-4/attachment/Cmexg3RWsW03GFl16JnNmKBM8XNnFyCZFaW88SQMyqg7z_kE0IeHUNcVHS2obGiQ2FfeEl-mP_NHF27P0.

45. Construction General Permit – For construction activity resulting in a land disturbance of one acre or more, applicant shall file a Notice of Intent (NOI) with the State Water Resources Control Board under the Construction Activities Storm Water General Permit (General Permit). The NOI indicates the applicant's intent to comply with the San Mateo Countywide Stormwater Pollution Prevention Program, including a Stormwater Pollution Prevention Plan (SWPPP). [SDR] [ENGINEERING]

46. Stormwater BMPs - Stormwater Pollution Prevention Program Best Management Practices (BMPs) for construction shall be implemented to protect water quality, in accordance with the approved Stormwater Pollution Prevention Plan (SWPPP). BMP plan sheets are available electronically for inserting into project plans. [SDR][ENGINEERING]

58. Construction Sign - Prior to the start of any construction work, including demolition, install at least one 36" x 48" (minimum) construction sign in a visible location along the project frontage for the duration of construction. The sign shall include, at minimum, the following information: project name & address, elevation or rendering, construction manager (name, phone number), anticipated completion (season, year), and the City's permitting website http://permits.redwoodcity.org [COA][PLANNING]

65. Winterizing - If construction is not complete by the start of the wet season (October 1 through April 30), implement a winterization program to minimize the potential for erosion and sedimentation. As appropriate to the site and status of construction, winterization requirements shall include inspecting/maintaining/cleaning all soil erosion and sedimentation controls prior to, during, and immediately after each storm event; stabilizing disturbed soils through temporary or permanent seeding, mulching, matting, tarping or other physical means; rocking unpaved vehicle access to limit dispersion of mulch onto public right-of-way; and covering/tarping stored construction materials, fuels, and other chemicals. Plans to include proposed measures to prevent erosion and polluted runoff from all site conditions shall be submitted for approval by CDD [Community Development Department] prior to beginning construction. As site conditions warrant, the City Engineer may direct the applicant to implement additional winterization requirements. [COA][ENGINEERING]

66. Grading - Grading shall be performed in accordance with the City's Engineering Standards. Soil or other construction materials shall not be stockpiled in the public right-of-way. Submit cut/fill volumes (CY) for all soils to be imported to or exported from the site. [SDR][ENGINEERING]

67. Monitoring - The Soils Engineer shall conduct continuous site inspections during trenching and backfill operations at the applicant's expense. The Soils Engineer shall take compaction tests and submit the results to Engineering & Construction. [SDR][ENGINEERING]

Redwood City General Plan 2010

Adopted on October 11, 2010, the Redwood City General Plan is a comprehensive plan built around a series of key goals, policies, and programs for long-term physical development of the community.[34] The General Plan establishes the basis for zoning regulations and guides the evaluation of development

[34] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

proposals. Additionally, it creates the framework for economic development, transportation improvements, and balancing residents' desires regarding sustainability, City services, parks, and cultural and historic preservation. The General Plan goals, policies, and programs that are relevant to air quality are primarily in the Built Environment and Public Safety Elements.

The key goals and policies of the General Plan relevant to this air quality impacts analysis of the proposed project are included in **Table 3.2-3**.

Table 3.2-3 Key Policies and Strategies in the Redwood City General Plan

Goal/Policy Number	Goal/Policy Text
Built Environment Element	
Goal BE-28	Reduce traffic density, and improve air quality and safety in Environmental Justice communities.
Policy BE-28.1	Increase active transportation, reduce motor vehicle miles traveled, and improve bicyclist and pedestrian safety in and around Environmental Justice communities.
Public Safety Element	
Goal PS-1	Maintain good local air quality, and reduce the local contributions of airborne pollutants to the air basin.
Policy PS-1.1	Work with neighboring jurisdictions and regional agencies— including the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), and the Metropolitan Transportation Commission (MTC)—to reduce motor vehicle emissions.
Policy PS-1.5	Require projects that generate potentially significant levels of air pollutants to incorporate the most effective air quality mitigation into project design, as feasible.

Source: City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Redwood City Municipal Code

The Redwood City Municipal Code includes various directives pertaining to air pollutant and GHG emissions. The Municipal Code is organized by chapter, article, and section. Most of these provisions are included in Chapter 9, Buildings, Chapter 47, Mandatory Organic Waste Disposal Reduction, and Chapter 48, Transportation System Management.

- Chapter 9 - Article XI, Recycling and Salvaging of Construction and Demolition Debris, requires the recycling of construction and demolition debris to help the City reduce landfill waste, foster natural resource conservation, and meet and exceed a diversion rate of 50 percent.
- Chapter 9 - Article XIII, Electrical Vehicle Charging Stations, outlines the requirements and application standards for electrical vehicle charging stations (EVCS) imposed by State and local permitting authorities.
- Chapter 47, Mandatory Organic Waste Disposal Reduction, lists requirements for organic and solid waste, in compliance with State recycling laws, State organic recycling laws, and the Short-Lived Climate Pollutant Reduction Act of 2016.
- Chapter 48, Transportation System Management, implements the City's adopted TDM Program regarding traffic congestion management, sustainable growth, reducing GHG emissions, enhancing transportation options for all, and promoting safety and equity in the City's transportation system.

- Zoning Code Article 19, General Industrial District, has a stated purpose of providing a district exclusively for sound industrial development wherein manufacturing and other industries can locate and operate away from the restricting influences on non-industrial uses while maintaining an environment free from offensive or objectionable noise, dust, odor, and other nuisances.

3.2.3.3 Existing Conditions

San Francisco Bay Area Air Basin Conditions

Existing conditions for the SFBAAB are drawn from the Air District's 2022 CEQA Air Quality Guidelines.[35] California is divided geographically into air basins to manage the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. The State is divided into 15 air basins, and the City of Redwood City is in the SFBAAB. The discussion below identifies the natural factors in the SFBAAB that affect air pollution. Air pollutants of concern are criteria air pollutants and TACs. Federal, State, and local air districts have adopted laws and regulations intended to control and improve air quality.

The Air District is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[36]

Meteorology

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range[37] splits in the Bay Area, creating a western coast gap, the Golden Gate, and an eastern coast gap, the Carquinez Strait, which allows air to flow in and out of the Bay Area and the Central Valley. The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Wind Patterns

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais in Marin

[35] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[36] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[37] The Coast Range traverses California's west coast from Humboldt County to Santa Barbara County.

County, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills. Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap.

The air flowing in from the coast to the Central Valley, called the delta breeze, begins developing at or near ground level along the coast in late morning or early afternoon, and the delta breeze deepens and increases in velocity while spreading inland. Under normal atmospheric conditions, the air in the lower atmosphere is warmer than the air above it. In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes (i.e., conditions where there is little mixing, which occurs when there is a lack of or little wind) are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

Temperature

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons, the temperatures at the coast can be 35 degrees Fahrenheit (°F) cooler than temperatures 15 to 20 miles inland; at night, this contrast usually decreases to less than 10°F. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

Precipitation

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

Wind Circulation

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some

sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

Inversions

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions[38] are more common in the summer and fall, and radiation inversions[39] are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

Attainment Status of the SFBAAB

The AQMP (here, the 2017 Clean Air Plan) provides the framework for air quality basins to achieve attainment of the State and federal standards through the State Implementation Plan. Areas that meet NAAQS and CAAQS are classified as attainment areas, and areas that do not meet these standards are classified as nonattainment areas. Severity classifications for O_3 range from marginal, moderate, serious, severe, and extreme while severity classifications for $PM_{2.5}$ and PM_{10} include moderate and serious.

- **Unclassified**: A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment**: A pollutant is in attainment if the NAAQS or CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment**: A pollutant is in nonattainment if there was at least one violation of the NAAQS or CAAQS for that pollutant in the area.
- **Nonattainment/Transitional**: A subcategory of the nonattainment designation that is specific to CAAQS. An area is designated nonattainment/transitional to signify that the area is close to attaining the CAAQS for that pollutant.
- **Maintenance**: A designation that is specific to NAAQS. An area is designated Maintenance to signify that the area was previously in nonattainment but has since attained the NAAQS for that pollutant.

The attainment status for the SFBAAB is shown in **Table 3.2-4**. The SFBAAB is currently designated as a nonattainment area for NAAQS and CAAQS for O_3 and $PM_{2.5}$, and NAAQS and CAAQS for PM_{10}.

[38] When the air blows over elevated areas, it is heated as it is compressed into the side of the hill/mountain. When that warm air comes over the top, it is warmer than the cooler air of the valley.

[39] During the night, the ground cools off, radiating the heat to the sky.

Table 3.2-4 San Francisco Bay Area Air Basin Attainment Status of Criteria Pollutants

Pollutant	State	Federal
Ozone – 1 hour	Nonattainment	Classification revoked (2005)
Ozone – 8 hour	Nonattainment	Nonattainment (marginal)[1]
PM_{10}	Nonattainment	Unclassified/Attainment[2]
$PM_{2.5}$	Nonattainment	Nonattainment (moderate)[3]
CO	Attainment	Attainment
NO_2	Attainment	Unclassified
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Not applicable
All others[4]	Unclassified/Attainment	Not applicable

Source: California Air Resources Board (CARB). 2025. Maps of State and Federal Area Designations. Available: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed February 10, 2025.
Notes:
[1] Severity classification as of February 13, 2017.
[2] In December 2014, the USEPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.
[3] On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m^3 to 9 µg/m^3. Based on 2021-2023 $PM_{2.5}$ air quality monitoring data for the 9.0 µg/m^3 annual $PM_{2.5}$ standard, CARB is anticipated to submit recommendations to the USEPA that the attainment status of the SFBAAB be changed to nonattainment.[40]
[4] Other pollutants include hydrogen sulfide and visibility-reducing particles.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the SFBAAB are best documented by measurements taken by the Air District. The Air District has 30 permanent monitoring stations around the Bay Area. The nearest station is the Redwood City Monitoring Station, which monitors O_3, NO_2, and $PM_{2.5}$. The Redwood City Monitoring Station does not monitor PM_{10}; therefore, the nearest station for PM_{10} is the San José-Jackson Street Monitoring Station. Data from these monitoring stations are summarized in **Table 3.2-5**. The data show that the area occasionally exceeded the NAAQS and CAAQS for eight-hour O_3, CAAQS for one-hour ozone and PM_{10}, and NAAQS for $PM_{2.5}$.

[40] California Air Resources Board. December 13, 2024. Staff Report: PM2.5 Area Designation Recommendations for the 2024 Annual PM2.5 National Ambient Air Quality Standard. Available: https://ww2.arb.ca.gov/sites/default/files/2024-12/Staff_Report_PM2.5_Area_Designation_Recommendations_2024_Annual_PM2.5_NAAQS.pdf.

Table 3.2-5 Ambient Air Quality Monitoring Summary

Pollutant/Standard[1]	Number of Days Thresholds Were Exceeded and Maximum Levels			
	2020	2021	2022	2023
Ozone (O_3)[1]				
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	1	0	0	0
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	1	0	0	0
Max. 1-Hour Conc. (ppm)	0.098	0.085	0.079	0.089
Max. 8-Hour Conc. (ppm)	0.077	0.063	0.061	0.061
Nitrogen Dioxide (NO_2)[1]				
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.046	0.041	0.044	0.055
Coarse Particulates (PM_{10})[2]				
State 24-Hour ≥ 50 µg/m³ (days exceed threshold)	10	0	0	0
Federal 24-Hour ≥ 150 µg/m³ (days exceed threshold)	0	0	0	0
Max. 24-Hour Conc. (µg/m³)	137.1	45.1	44.5	NA
Fine Particulates ($PM_{2.5}$)[1]				
Federal 24-Hour > 35 µg/m³ (days exceed threshold)	9	0	0	1
Max. 24-Hour Conc. (µg/m³)	124.1	30.1	27.4	41.0

Source: California Resources Board (CARB). 2025, February 10 (accessed). Air Pollution Data Monitoring Cards (2020, 2021, 2022, and 2023). Available: https://www.arb.ca.gov/adam/topfour/topfour1.php.
Notes:
[1] Data for O_3, NO_2, and $PM_{2.5}$ obtained from the Redwood City Monitoring Station.
[2] Data for PM_{10} obtained from the San José-Jackson Street Monitoring Station.
Key: ppm = Conc. = concentration; parts per million; µg/m³ = micrograms per cubic meter; NA = Data not available

Sensitive Receptors

Some land use types are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. The Air District defines sensitive receptors as "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas."[41]

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial,

[41] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as most workers tend to stay indoors most of the time. The nearest receptors to the project site include workers adjacent to the site to the south and southeast and liveaboards (people who reside on boats) at the Port of Redwood City Municipal Marina and the Westpoint Harbor, approximately 1 mile to the southwest and 2,000 feet to the east, respectively. In addition, residential neighborhoods are present along the interior San Francisco Bay coastline and in the vicinity of the San Francisco and Oakland Ferry Terminals.

Existing Site Conditions

The baseline for characterizing the existing setting at the project site is the conditions at the beginning of proposed project operation that consist of a cleared, graded project site. However, to determine the net increase in criteria air pollutant emissions resulting from implementation of the proposed project, any permanent emission sources that could be removed, expanded, or modified that exist on the project site at the time of writing must be considered in the baseline emissions analysis. The project site includes one existing maintenance building of approximately 1,000 square feet. Because the maintenance building would be relocated as part of the proposed project, existing operational emissions were not quantified to characterize existing conditions because the relocation of the maintenance building would not expand its size or function or result in an increase in emissions generation from vehicle trips, heating and cooling, or consumer product use.

3.2.4 Thresholds of Significance

The proposed project would result in significant impacts associated with air quality if it would:

Impact 3.2-1 Conflict with or obstruct implementation of the applicable air quality plan.

Impact 3.2-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.

Impact 3.2-3 Expose sensitive receptors to substantial pollutant concentrations.

Impact 3.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

3.2.4.1 Air District Thresholds

The Air District's CEQA Air Quality Guidelines were prepared to assist in evaluating air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air quality impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics emissions and odors.

In June 2010, the Air District's Board of Directors adopted CEQA thresholds of significance and an update of the CEQA Guidelines. These thresholds are designed to establish the level at which the Air District determined air pollutant emissions would cause significant environmental impacts under CEQA. The Air District published a new version of the Guidelines in April 2023.[42] This latest version of the Air District's CEQA Guidelines was used to prepare the air quality impacts analysis in this Draft EIR.

Clean Air Plan Consistency

The Air District recommends an evaluation be prepared to determine whether a project is consistent with the applicable AQMP, which is currently the 2017 Clean Air Plan. The 2017 Clean Air Plan's regional emissions inventory for the SFBAAB is based on regional population, housing, and employment projections developed by ABAG that are based, in part, on cities' general plan land use designations. The 2017 Clean Air Plan strategy is thus based on projections derived from local general plans. Therefore, projects that are consistent with the local general plan are considered consistent with the AQMP emissions forecast and regional attainment efforts. Because AQMP control measures primarily consist of actions to be taken by the Air District, such as exploring rulemaking options or developing incentive programs to support the AQMP goals, the Port has determined that analyzing the proposed project's growth projections against those accounted for in the 2017 Clean Air Plan is the appropriate threshold for whether the proposed project would conflict with the goals of the AQMP or disrupt or hinder implementation of the AQMP control measures. While the exact growth estimates for new residents and employees accounted for in the 2017 Clean Air Plan's regional projections is not known for Redwood City, the proposed project's growth projections are discussed in the context of expected growth of the project site under the existing land use designation that would have informed the site's contribution to the regional growth projections of the 2017 Clean Air Plan. Therefore, the proposed project's expected permanent growth is qualitatively analyzed against what would be expected under its current land use designation to determine whether the proposed project is consistent with the 2017 Clean Air Plan.

Criteria Air Pollutant Emissions and Precursors

The Air District's regional significance criteria for projects that exceed the screening thresholds are shown in **Table 3.2-6**. Criteria for both the construction and operational phases of a project are shown.

[42] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

Table 3.2-6 Air District Regional (Mass Emissions) Criteria Air Pollutant Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (Tons/year)
Project Level			
ROG[1]	54	54	10
NO_X[2]	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
PM_{10} and $PM_{2.5}$ Fugitive Dust	Best Management Practices	None	None

Source: Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

Notes:

[1] As discussed above, while ROG is not a criteria air pollutant itself, it is a precursor to ozone, which is a criteria pollutant for which the SFBAAB is in nonattainment.

[2] As discussed above, while NO_x is not a criteria air pollutant, it is a precursor to ozone, PM_{10}, and $PM_{2.5}$, which are criteria pollutants for which the SFBAAB is in nonattainment.

If a project exceeds the emissions in **Table 3.2-6**, that project would result in a cumulatively considerable contribution to the nonattainment status and would contribute to elevating health effects associated with these criteria air pollutants (refer to **Section 3.2.3.1** regarding descriptions of the health effects associated with criteria air pollutants). Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

However, because mass emissions are not directly correlated with concentrations of emissions, it is speculative to determine how a project exceeding the mass emission thresholds in **Table 3.2-6** could affect the number of days the region is in nonattainment or how many additional individuals in the SFBAAB would be affected by the health effects cited previously. The Air District is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air pollutants in the SFBAAB and, at the present time, it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health in order to address the issue raised in *Sierra Club v. County of Fresno (Friant Ranch, L.P.)* (2018) 6 Cal.5th 502, Case No. S21978 (Friant Ranch).

Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. As previously discussed, ground-level O_3 is not emitted directly into the air but is formed through photochemical reactions between NO_X and ROGs in the atmosphere. As such, formation of O_3 involves complex chemical and physical interactions of multiple pollutants from natural and anthropogenic sources. Because of the complexities of predicting ground-level O_3 concentrations in relation to the NAAQS and CAAQS and the photochemical atmospheric mixing effect which occurs regionally between NO_X and ROGs to form O_3, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. To achieve the health-based standards established by the USEPA, air districts prepare AQMPs that detail regional programs to attain the NAAQS and CAAQS. If the proposed project exceeds the regional significance thresholds, it would contribute to an increase in health effects in the SFBAAB until regional attainment standards are met.

CO Hotspots

Congested intersections have the potential to create elevated concentrations of CO, referred to as CO hotspots. The significance criteria for CO hotspots are based on the CAAQS for CO, which are 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the CAAQS and NAAQS (refer to **Table 3.2-4**), and CO concentrations in the SFBAAB have steadily declined. Because CO concentrations have improved, the Air District does not require a CO hotspot analysis if the following criteria are met:[43]

- The project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Community Risk and Hazards

The Air District's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the nearby receptors. The thresholds for construction-related local community risk and hazard impacts are the same as for project operations, as discussed below. The Air District has adopted screening tables for air toxics evaluation during construction.[44] Construction-related TAC and $PM_{2.5}$ impacts are addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site and on-site receptors, as applicable.[45,46]

Community Risk and Hazards: Project

Project-level emissions of TACs or $PM_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk in the absence of a qualified CRRP:

- An excess (i.e., increased) cancer risk level of more than 10 in one million
- Noncancer (i.e., chronic or acute) hazard index greater than 1.0

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[43] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[44] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[45] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[46] Bay Area Air Quality Management District. 2025. Air Quality Standards and Attainment Status. Available: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status#thirteen. Accessed August 11, 2026.

- An incremental increase of greater than 0.3 micrograms per cubic meter (µg/m^3) annual average $PM_{2.5}$[47]

Community Risk and Hazards: Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulatively considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following in the absence of a qualified CRRP:

- An excess cancer risk level of more than 100 in one million (from all local sources)
- Chronic noncancer hazard index (from all local sources) greater than 10.0
- 0.8 µg/m^3 annual average $PM_{2.5}$ (from all local sources)[48]

In February 2015, the OEHHA adopted new health risk assessment guidance that includes several calculation procedures that are more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals and age-specific breathing rate.[49]

Odor Impacts

The Air District's thresholds for odors are qualitative based on District Regulation 7, Odorous Substances. The Air District has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, as identified in Table 5-4 of the Air District's CEQA Air Quality Guidelines.[50] These uses include wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. For a project-level analysis, a project would not be considered to have the potential to result in a significant odor impact if it does not propose one of these odor-generating land uses.

3.2.5 Project Impacts

3.2.5.1 Impact 3.2-1

Impact 3.2-1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

The Air District's 2017 Clean Air Plan[51] is the applicable AQMP, as stated above. A consistency determination with the AQMP links local planning and individual projects to the 2017 Clean Air Plan and

[47] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[48] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[49] California Office of Environmental Health Hazard Assessment. February 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed February 10, 2025.

[50] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[51] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

fulfills the CEQA goal of informing decision-makers of the environmental impacts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information regarding compliance with the clean air goals in the 2017 Clean Air Plan.

The 2017 Clean Air Plan's regional emissions inventory for the SFBAAB is based on regional population, housing, and employment projections developed by ABAG that are based, in part, on cities' general plan land use designations. The 2017 Clean Air Plan strategy is thus based on projections derived from local general plans. Therefore, projects that are consistent with the local general plan are considered consistent with the AQMP. Projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the 2017 Clean Air Plan.

3.2.5.1.1 Construction

3.2.5.1.1.1 Ferry Terminal

It is estimated that between 2 and 44 construction workers would be on-site daily to construct the ferry terminal, depending on the phase of construction. Construction activities associated with the ferry terminal would result in temporary employment which would end upon ferry terminal construction completion. Given the relatively low number of workers required and common nature of the construction, there would be a sufficient existing market in the City and the region as a whole to fill the jobs. With the short-term duration of construction and challenging housing market, the construction workforce is expected to commute from the surrounding area and not relocate. Moreover, as shown in **Table 3.2-7** in **Section 3.2.5.2** below, construction of the ferry terminal would result in emissions that are below the Air District's significance thresholds for whether a project could result in or contribute to a violation of ambient air quality standards. Therefore, construction of the ferry terminal would not conflict with or obstruct implementation of the 2017 Clean Air Plan; the impact would be less than significant.

3.2.5.1.1.2 Visitor-Serving Uses

It is estimated that between 8 and 44 construction workers would be on-site daily to construct the visitor-serving uses, depending on the phase of construction. As with construction of the ferry terminal discussed above, there would be a sufficient existing market in the City and the region as a whole to fill the jobs. The construction workforce is expected to commute from the surrounding area and not relocate. Construction activities associated with the visitor-serving uses would result in temporary employment only and would end upon visitor-serving uses construction completion. Moreover, as shown in **Table 3.2-8** in **Section 3.2.5.2** below, construction of the visitor-serving uses would result in emissions that are below the Air District's significance thresholds for whether a project could result in or contribute to a violation of ambient air quality standards. Therefore, construction of the visitor-serving uses would not conflict with or obstruct implementation of the 2017 Clean Air Plan; the impact would be less than significant.

3.2.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the proposed project would not increase the need for housing or cause a substantial increase in local population or employment. Moreover, as shown in **Table 3.2-9** in **Section 3.2.5.2** below, construction of the proposed project overall would result in emissions that are below the Air District's significance thresholds for whether a project could result in or contribute to a violation of ambient air

quality standards. Therefore, construction of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan; the impact would be less than significant.

3.2.5.1.2 Operations

3.2.5.1.2.1 Ferry Terminal

As described in Section 2.5.4.1, the ferries would require eight crews with a minimum of four people per crew per weekday to operate each route, resulting in an estimated 64 total crew members across both weekday ferry routes. The weekend San Francisco route would require four crews, resulting in an estimated 16 total crew members. Staffing for the new ferry service is expected to occur across WETA's service area throughout the Bay Area, which is a well-established urban community with a large housing base and housing stock. New employment demand would be met within the existing and future labor market in the region, and there would be a sufficient existing labor market in the region as a whole to fill the jobs and thus, no population relocation is expected. Consequently, the operation of the ferry terminal would not substantially increase the demand for new housing, employment, or local population growth beyond what is accounted for in emissions forecast for the 2017 Clean Air Plan. Therefore, operation of the ferry terminal would not conflict with or obstruct implementation of the 2017 Clean Air Plan; the impact would be less than significant.

3.2.5.1.2.2 Visitor-Serving Uses

The operation of visitor-serving uses would result in approximately 400 new employment opportunities associated with the hotel and related facilities, restaurant, and the limited office uses. These new employment opportunities would be typical of other general commercial employment opportunities in the City and would not constitute specialized labor needs. As stated in the Housing Element of the Redwood City General Plan, in 2018, there were a total of 40,418 workers living in the City and an estimated 69,400 jobs in the City. In 2019, there were a total of 30,155 housing units. This indicates a lack of workforce housing options within the City. The Housing Element acknowledges that many workers in the City commute long distances to more affordable neighborhoods. New home construction has not kept pace with the number of jobs the local economy is adding, leading to a housing shortage. Given the challenging housing market, the workforce for the visitor-serving uses is anticipated to commute from the surrounding area and not relocate. Therefore, the visitor-serving uses employment would likely be filled by the existing labor pool in the region and would not add new permanent residents. It would, therefore, be consistent with the growth projections for the region. As identified in Section 3.10.3.2.1 in Section 3.10, Land Use, the project site is currently designated as (M) Marina uses that allows for marinas, ferry terminals, and complementary uses consisting of restaurants, retail shops, and mixed-use housing. Therefore, the visitor-serving uses would not result in growth beyond what would be expected from buildout of the existing land use designation for the project site. Consequently, the operation of the visitor-serving uses would not substantially increase the demand for new housing, employment, or local population growth beyond what is accounted for in emissions forecast for the 2017 Clean Air Plan. Additionally, since the hotel would have fewer than 500 rooms and an office space less than 250,000 square feet, development of these visitor-serving uses are not considered a regionally significant project under CEQA Guidelines Section 15206[52] that would affect regional VMT and warrant intergovernmental

[52] Pursuant to CEQA Guidelines Section 15206, a proposed hotel/motel development of more than 500 rooms and a proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space would be considered a project of Statewide, regional, or areawide significance.

review by ABAG and MTC. Therefore, the operation of the visitor-serving uses would not conflict with or obstruct implementation of the 2017 Clean Air Plan; the impact would be less than significant.

3.2.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project does not include housing development. Although 400 new jobs are expected to result from the full build-out of the project site, operation of the proposed project would support recreational and commercial development in alignment with the Port's 2020 Vision Plan. Operation of the proposed project would not increase the need for housing or cause a substantial increase in local population or employment. However, as shown in **Table 3.2-12** in **Section 3.2.5.2.2.3** below, operation of the proposed project overall would result in emissions that exceed the Air District's significance thresholds for whether a project could result in or contribute to a violation of ambient air quality standards. Nonetheless, an exceedance of the Air District's project-level significance thresholds does not necessarily equate to an obstruction of or conflict with the Air District's Clean Air Plan. As discussed above, operation of the ferry terminal and visitor-serving uses would not induce population growth beyond that accounted for in the growth projections utilized in the Clean Air Plan's regional emissions forecasting. In addition, implementation of the proposed project would provide an alternative mode of transportation to on-road vehicle use for regional Bay Area commuters and introduce recreational and commercial development that would be comparable in purpose and intensity to what is currently allowed under the Marina designation for the project site, the designation of which informs the growth projections for the Clean Air Plan emission forecasts. Therefore, operation of the proposed project would not conflict with or obstruct implementation of the applicable air quality plan; the impact would be less than significant.

3.2.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.2.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.2.5.2 Impact 3.2-2

Impact 3.2-2: Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?

3.2.5.2.1 Construction

Construction Exhaust Emissions

Analysis of the proposed project's construction emissions was conducted using CalEEMod Version 2022.1 and CARB's OFFROAD database, based on information provided by the Port and default equipment specifications for each construction activity where project-specific construction information was unknown. Construction was conservatively assumed to occur over a 36-month construction period for the ferry terminal and visitor-serving uses.

Construction-related air quality impacts were determined by comparing the average daily criteria air pollutants emissions generated by the proposed project-related construction activities to the Air District's significance thresholds shown in **Table 3.2-6**. The emission estimates provided herein account for all

phases of construction envisioned for the proposed ferry terminal, including the imported fill material needed to raise the site for sea level rise protection purposes, which would involve up to 100 daily hauling truck trips along Seaport Boulevard. Average daily emissions are based on the annual construction emissions divided by the total number of active construction days. The Air District additionally recommends that for phased projects with concurrent construction and operation, construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.[53] Thus, the proposed project's total emissions during concurrent initial operation of the ferry terminal and construction of the visitor-serving uses are provided **Table 3.2-11** in **Section 3.2.5.2.2.2** below, and further evaluated in **Section 3.2.5.2.2.3**.

Construction Fugitive Dust

Ground-disturbing activities during construction would generate fugitive dust (PM_{10} and $PM_{2.5}$). The amount of dust generated during construction would be highly variable and is dependent on the amount of material being disturbed, the type of material, moisture content, and meteorological conditions. If uncontrolled, PM_{10} and $PM_{2.5}$ levels downwind of actively disturbed areas could possibly exceed State standards. For the proposed project to have a less-than-significant impact related to fugitive dust emissions, the Air District recommends the implementation of dust control BMPs. The Air District considers all impacts related to fugitive dust emissions from construction to be less than significant with implementation of the Air District's dust control BMPs.[54] Because construction of the proposed project would disturb greater than one acre of land, a SWPPP would be required pursuant to the National Pollutant Discharge Elimination System (NPDES) program, which would result in the implementation of fugitive dust and sediment flow control measures that would complement the Air District's dust control BMPs (see Section 3.6, Geology, Soils, and Paleontological Resources, and Section 3.9, Hydrology and Water Quality, for additional information on NPDES requirements.) Moreover, construction would follow the City's COAs and SDRs, discussed in **Section 3.2.3.2.3** above, which would require the implementation of dust control measures that would further reduce the generation of fugitive dust and sediment pollution during construction, and the Air District's dust control BMPs would apply to the proposed project. Therefore, the impact related to fugitive dust emissions for construction of the ferry terminal and the visitor-serving uses would be less than significant.

3.2.5.2.1.1 Ferry Terminal

Development of the ferry terminal would result in short-term construction-related criteria pollutant emissions. Short-term criteria pollutant emissions would occur during activities associated with the ferry terminal and associated facilities development, including importing fill material to raise the site, equipment mobilization, SWPPP implementation, demobilization, precast piles installation, pier installation, gangway installation, float installation, steel pipe piles installation, donut fender steel pipe piles installation, waterside/landside utilities, dredging, building and asphalt demolition, site preparation, grading, abutment and concrete placement, riprap installment, bicycle storage, building construction, railroad track relocation, maintenance building relocation, paving, and architectural coating. NO_X and ROG emissions are primarily associated with gasoline and diesel equipment exhaust and the application of

[53] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[54] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

architectural coatings. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) are primarily associated with site preparation and vary depending on parameters such as soil silt content, soil moisture, wind speed, acreage of disturbance, and VMT by construction vehicles on- and off-road.

Construction of the ferry terminal additionally includes the widening of Seaport Boulevard to accommodate a new bicycle path and sidewalk; however, it should be noted that the emissions modeling does not reflect specific modifications envisioned for the intersection at the entrance to the Pacific Shores Center, which would result in an estimated 26,000 square feet of additional roadway and sidewalk improvements than what is accounted for in the emissions estimates provided in **Table 3.2-7**. While this would constitute a potential increase in construction work from what is shown in **Table 3.2-7**, this increase in roadway modifications would be captured by the overall construction equipment use and schedule envisioned in this analysis, which accounts for approximately 4.2 acres of site improvements, or approximately 182,932 square feet. Therefore, the construction emissions shown in **Table 3.2-7** are representative of all construction activities envisioned for the ferry terminal, including the modifications to the intersection at the entrance to the Pacific Shores Center.

As shown in **Table 3.2-11**, criteria air pollutant emissions from construction equipment exhaust would not exceed the Air District's average daily thresholds, and construction of the ferry terminal would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The impact would be less than significant.

Table 3.2-7 Ferry Terminal Construction-Related Criteria Air Pollutant Emissions

	Criteria Air Pollutants (tons/year)[1,2]					
Year	**ROG**	**NO_X**	**Fugitive PM_{10}**	**Exhaust PM_{10}**	**Fugitive $PM_{2.5}$**	**Exhaust $PM_{2.5}$**
Year 1	<1	1	<1	<1	<1	<1
Year 2	<1	5	1	<1	<1	<1
	Criteria Air Pollutants (average lbs/day)[3]					
Year 1	2	28	11	1	3	1
Year 2	5	52	8	1	2	1
Air District Average Daily Threshold	54	54	BMPs[2]	82	BMPs[2]	54
Exceeds Average Daily Threshold	No	No	N/A	No	N/A	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Notes:
Emissions represent rounded results.
[1] Construction phasing and equipment mix for waterside improvements are based on the preliminary information provided by the Port. Where specific information regarding project-related construction activities for landside improvements was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
[2] Includes implementation of BMPs for fugitive dust control required by the Air District. The Air District considers impacts related to fugitive dust emissions from construction to be less than significant with implementation of the Air District's dust control BMPs.
[3] Average daily emissions are based on the total construction emissions divided by the total number of active construction days for the originally anticipated construction schedule (49 workdays in Year 1; 204 workdays in Year 2).
Key: BMPs = Best Management Practices; N/A = not applicable

3.2.5.2.1.2 Visitor-Serving Uses

Development of the visitor-serving uses would result in short-term construction-related criteria pollutant emissions. The timing and duration for construction of the visitor-serving uses would be determined when the specific development is proposed; however, this analysis conservatively assumes that the construction of the visitor-serving uses would begin immediately following construction of the ferry terminal and take approximately 24 months. On average, construction equipment and vehicle fleets improve in fuel efficiency and emission control performance as older equipment and vehicles are retired and newer equipment and vehicles are acquired. Therefore, assuming construction of the visitor-serving uses would occur immediately following the completion of the ferry terminal construction assumes a worst-case fuel efficiency scenario for the equipment and vehicles that are used. Short-term criteria pollutant emissions would occur during site preparation, grading, utility trenching, building construction, paving, and architectural coating activities associated with the visitor-serving uses development. NO_X and ROG emissions are primarily associated with gasoline and diesel equipment exhaust and the application of architectural coatings. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) are primarily associated with site preparation and vary depending on parameters such as soil silt content, soil moisture, wind speed, acreage of disturbance, and VMT by construction vehicles on- and off-road.

As shown in **Table 3.2-8**, criteria air pollutant emissions from construction equipment exhaust would not exceed the Air District's average daily thresholds, and impacts from project-related construction activities on regional air quality would be less than significant. The construction of the visitor-serving uses would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.

The proposed project's combined overlapping emissions during operation of the ferry terminal and construction of the visitor-serving uses are provided in **Table 3.2-11** and evaluated in **Section 3.2.5.2.2.3** which addresses operations of the proposed project.

Table 3.2-8 Visitor-Serving Uses Construction-Related Criteria Air Pollutant Emissions

	Criteria Air Pollutants (tons/year)[1,2]					
Year	**ROG**	**NO_X**	**Fugitive PM_{10}**	**Exhaust PM_{10}**	**Fugitive $PM_{2.5}$**	**Exhaust $PM_{2.5}$**
Year 2	<1	<1	<1	<1	<1	<1
Year 3	<1	1	<1	<1	<1	<1
Year 4	1	1	<1	<1	<1	<1
	Criteria Air Pollutants (average lbs/day)[3]					
Year 2	1	6	2	<1	<1	<1
Year 3	1	11	4	<1	1	<1
Year 4	13	11	4	<1	1	<1
Air District Average Daily Threshold	54	54	BMPs[2]	82	BMPs[2]	54
Exceeds Average Daily Threshold	No	No	N/A	No	N/A	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Notes:
Emissions represent rounded results.
[1] Overall construction timing is based on preliminary information provided by the Port. Where specific information regarding project-related construction activities for landside improvements was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
[2] Includes implementation of BMPs for fugitive dust control required by the Air District. The Air District considers impacts related to fugitive dust emissions from construction to be less than significant with implementation of the Air District's dust control BMPs.
[3] Average daily emissions are based on the total construction emissions divided by the total number of active construction days for the originally anticipated construction schedule (66 workdays in Year 2; 261 workdays in Year 3; 196 workdays in Year 4).
Key: BMPs = Best Management Practices; N/A = not applicable

3.2.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed previously, development of the proposed project would result in short-term construction-related criteria pollutant emissions across various construction phases. It should be noted that while construction is anticipated to occur over approximately 36 months, the construction schedule was anticipated to occur over 4 calendar years based on preliminary construction information, and the construction of the ferry terminal would not overlap with construction of the visitor-serving uses.

As shown in **Table 3.2-9,** criteria air pollutant emissions from construction equipment exhaust associated with the proposed project would not exceed the Air District's average daily thresholds, and impacts from project-related construction activities on regional air quality would be less than significant.

Table 3.2-9 Project Construction-Related Criteria Air Pollutant Emissions

Year	Criteria Air Pollutants (tons/year)[1,2]					
	ROG	NO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Year 1	<1	1	<1	<1	<1	<1
Year 2	<1	5	1	<1	<1	<1
Year 3	<1	1	<1	<1	<1	<1
Year 4	1	1	<1	<1	<1	<1
	Criteria Air Pollutants (average lbs/day)[3]					
Year 1	2	28	11	1	3	1
Year 2	4	41	6	1	2	1
Year 3	1	11	4	<1	1	<1
Year 4	13	11	4	<1	1	<1
Air District Average Daily Threshold	54	54	BMPs[2]	82	BMPs[2]	54
Exceeds Average Daily Threshold	No	No	N/A	No	N/A	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Notes: Emissions represent rounded results.
[1] Construction phasing and equipment mix are based on the preliminary information provided by the Port. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast Air Quality Management District of construction equipment and phasing for comparable projects.
[2] Includes implementation of BMPs for fugitive dust control required by the Air District. The Air District considers impacts related to fugitive dust emissions from construction to be less than significant with implementation of the Air District's dust control BMPs.
[3] Average daily emissions are based on the total construction emissions divided by the total number of active construction days (49 workdays in Year 1; 268 workdays in Year 2; 261 workdays in Year 3; 196 workdays in Year 4).
Key: BMPs = Best Management Practices; N/A = not applicable

Therefore, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The impact would be less than significant.

The Air District additionally recommends that for phased projects with concurrent construction and operation, construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap. The proposed project's combined overlapping emissions during initial operation of the ferry terminal and construction of the visitor-serving uses are provided in **Table 3.2-11** and evaluated in **Section 3.2.5.2.2.3**.

3.2.5.2.2 Operations

Long-term operational air pollutant emissions introduced by the proposed project would be generated by area sources (e.g., landscape fuel use, aerosols, architectural coatings, and asphalt pavement), ferry vessel sources, and mobile sources (i.e., on-road vehicles). Long-term operational emissions for the ferry terminal, visitor-serving uses, and overall proposed project were estimated and compared against the Air District's applicable significance thresholds. Pursuant to Air District recommendation, construction-related exhaust emissions were combined with operational emissions for all phases where construction and operations overlap. Thus, the proposed project's combined overlapping emissions during initial operation of the ferry terminal and construction of the visitor-serving uses are provided in **Table 3.2-11** and evaluated in **Section 3.2.5.2.2.3**.

3.2.5.2.2.1 Ferry Terminal

Operation of the ferry terminal would result in the operation of a ferry transit service that would benefit overall air quality by providing commuters in the Bay Area alternative means of transportation other than on-road vehicle use, often times single-occupancy. As discussed in Section 3.14, Transportation, the ferry service upon initial operation would result in a net decrease of VMT across the Bay Area region by 11,945,200 miles per year. Because the ferry terminal would provide alternative modes of transportation for Bay Area commuters, the emissions analysis accounts for the transportation mode switch that would take place by commuters choosing to use the ferry terminal instead of their personally owned vehicles.

As previously discussed, development of the ferry terminal includes the widening of Seaport Boulevard to accommodate a bicycle path and a sidewalk; however, it should be noted that the emissions modeling does not reflect specific modifications envisioned for the intersection at the entrance to the Pacific Shores Center, which would result in an estimated 26,000 square feet of additional roadway and sidewalk improvements than what is accounted for in the emissions estimates provided in **Table 3.2-10**. While this would constitute a potential increase in operational ROG emissions from periodic recoating of the paved surfaces compared to what is shown in **Table 3.2-10**, this increase in roadway recoating emissions would be captured by the overall improvements envisioned in this analysis, which accounts for approximately 4.2 acres of site improvements, or approximately 182,932 square feet. Therefore, the operational emissions shown in **Table 3.2-10**, are representative of all recoating activities envisioned for the ferry terminal, including the modifications to the intersection at the entrance to the Pacific Shores Center.

As shown in **Table 3.2-10**, the operational emissions generated by the ferry terminal would not exceed the Air District's daily or annual thresholds and the ferry terminal development would not cumulatively contribute to the nonattainment designations of the SFBAAB. Therefore, operation of the ferry terminal would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The impact would be less than significant.

Table 3.2-10 Ferry Terminal Operation-Related Criteria Air Pollutant Emissions

	Criteria Air Pollutants (average lbs/day)			
Category	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile	(32)	(168)	(66)	(23)
Ferry Vessels	1	181	5	5
Area	<1	<1	<1	<1
Energy	-	-	-	-
Total	(31)	13	(61)	(18)
Air District Average Daily Threshold	54	54	82	54
Exceeds Air District Threshold?	No	No	No	No
	Criteria Air Pollutants (tons/year)[1]			
Category	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Total Emissions Year 2	(6)	2	(11)	(3)
Air District Annual Threshold	10	10	15	10
Exceeds Air District Threshold?	No	No	No	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Notes: Emissions represent rounded results. Estimates in parentheses represent negative numbers.
[1] Annual emissions are based on the average daily operational emissions multiplied by 365 days, except for mobile source emissions which are based on 347 days pursuant to Caltrans guidance on typical annual travel days.[55]

3.2.5.2.2.2 Visitor-Serving Uses

As previously described, this analysis assumes that the construction of the visitor-serving uses would begin immediately following construction of the ferry terminal and take approximately 24 months, which conservatively assumes a worst-case fuel efficiency scenario for the equipment and vehicles that are used. As shown in **Table 3.2-11**, the combined operational emissions generated by the visitor-serving uses in addition to the operational emissions of the ferry terminal would cause an exceedance of the Air District's daily and annual thresholds for NO_X, and the proposed project would not exceed any other Air District daily or annual thresholds of significance for determining whether a project could cumulatively contribute to the nonattainment designations of the SFBAAB. As illustrated in **Table 3.2-12** in **Section 3.2.5.2.2.3** below, the NO_X emissions during full operation in Year 4 would total an estimated 32 tons per year, which exceeds the Air District's annual significance threshold. However, as shown in the Year 4 Ferry Terminal Operation row of **Table 3.2-11**, operation of the ferry terminal would generate an estimated net increase of 2 tons per year of NO_X emissions, which would principally be the result of the operation of the ferries that would be equipped with engines meeting USEPA Tier 4 emission standards for NO_X and particulate matter. Therefore, as demonstrated by the increase in net annual NO_X emissions from 2 tons per year to 32 tons per year in the Year 4 Full Operation row of **Table 3.2-11**, the addition of the visitor-serving uses would cause an exceedance in the Air District's annual significance threshold for NO_X, which would principally be the result of the added VMT generation from visitors traveling to and from the visitor-serving uses. Therefore, operation of the visitor-serving uses, concurrent with operation of the ferry terminal, would result in a cumulatively considerable net increase of NO_X, an ozone precursor. Because

[55] California Department of Transportation. 2020. Vehicle Miles Traveled-Focused Transportation Impact Study Guide. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf.

the SFBAAB is designated non-attainment under applicable federal or State ambient air quality standards for ozone, this impact would be significant.

Table 3.2-11 Combined Project Overlapping Criteria Air Pollutant Emissions

	Criteria Air Pollutants (tons/year)[1]			
Year / Activity / Overlap Summary	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Year 1 Ferry Terminal Construction	<1	1	<1	<1
Year 1 Overlap – No Overlap	-	-	-	-
Year 2 Ferry Terminal Construction	<1	5	1	<1
Year 2 Overlap – No Overlap	-	-	-	-
Year 2 Ferry Terminal Operation	(1)	1	(3)	(1)
Year 2 Visitor-Serving Uses Construction	<1	<1	<1	<1
Year 2 Overlap	***(1)***	***1***	***(3)***	***(1)***
Year 3 Ferry Terminal Operation	(6)	2	(11)	(3)
Year 3 Visitor-Serving Uses Construction	<1	1	1	<1
Year 3 Overlap	***(5)***	***4***	***(11)***	***(3)***
Year 4 Ferry Terminal Operation	(6)	2	(11)	(3)
Year 4 Visitor-Serving Uses Construction	1	1	<1	<1
Year 4 Overlap	***(4)***	***4***	***(11)***	***(3)***
Year 4 Full Operation	1	32	<1	1
Year 4 Overlap – No Overlap	-	-	-	-
Maximum Annual Emissions (tons/year)[2]	1	32	1	1
Air District Annual Thresholds	10	10	15	10
Exceeds Air District Threshold?	No	**Yes**	No	No
	Criteria Air Pollutants (average lbs/day)[3]			
Maximum Overlap Scenario	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Maximum Year 1 Emissions	2	28	12	4
Maximum Year 2 Emissions	5	52	9	3
Maximum Year 3 Emissions	(30)	21	(58)	(17)
Maximum Year 4 Emissions	5	174	1	4
Air District Average Daily Threshold	54	54	82	54
Exceeds Air District Threshold?	No	**Yes**	No	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Notes:
Emissions represent rounded results. Estimates in parentheses represent negative numbers.
[1] Where construction and operation overlap, only exhaust emissions are summed for construction; no fugitive dust emissions are summed for construction for overlapping construction and operation, pursuant to Bay Area Air Quality Management District guidance. Operational emissions for partial years are proportioned according to when first operation is anticipated (e.g., Phase 1 operation Year 2 operating for the last 25% of the calendar year).
[2] Maximum Annual Emissions (tons/year) refers to the highest annual quantities of each criteria air pollutant, or precursor to a criteria air pollutant, that the proposed project would produce between construction and full buildout.
[3] For Year 1 and Year 2 where only Phase 1 construction occurs, annual emissions are divided by total construction workdays for that year and multiplied by 2,000 to identify average daily emissions.

3.2.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Full Buildout

As shown in **Table 3.2-12**, the operational emissions generated by the proposed project would exceed the Air District's daily and annual thresholds for NO_X emissions but not for any other criteria air pollutant or precursor. As shown, the largest NO_X emissions source for the proposed project would be operation of the ferries, averaging an estimated 181 pounds per day. Moreover, as shown in **Table 3.2-10**, the mobile source emissions during the ferry terminal operation would average an estimated net decrease of 168 pounds per day due to the transportation mode switching that Bay Area commuters would have access to with operation of the ferry terminal and the associated decrease in regional VMT. Moreover, as shown in the Year 4 Ferry Terminal Operation row of **Table 3.2-11**, operation of the ferry terminal would generate an estimated net increase of 2 tons per year of NO_X emissions when accounting for ferry terminal operations and the decrease in regional VMT from transportation mode switching. However, the increase in net annual NO_X emissions from 2 tons per year to 32 tons per year in the Year 4 Full Operation row of **Table 3.2-11** shows that the addition of the visitor-serving uses would cause an exceedance in the Air District's annual significance threshold for NO_X, which would principally be the result of the added VMT generation from visitors traveling to and from the visitor-serving uses.

Because NO_X is an ozone precursor, the proposed project would cumulatively contribute to the ozone non-attainment designations of the SFBAAB and impacts from project-related operation activities on regional air quality would be significant.

It should be noted that refrigerant emissions are provided in **Table 3.2-12** because the visitor-serving uses would include conditioned building space and subsequent use of refrigerant products; however, ferry terminal operational emissions shown in **Table 3.2-10** do not include refrigerant emissions because refrigerant use by the ferries would result in negligible emissions due to the size of the air conditioning systems anticipated for the vessels.

Table 3.2-12 Combined Project Operation-Related Criteria Air Pollutant Emissions

	Criteria Air Pollutants (average lbs/day)			
Category	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile	(<1)	(2)	(1)	(23)
Ferry Vessels	1	181	5	5
Area	6	<1	<1	<1
Energy	<1	2	<1	<1
Refrigerants	-	-	-	-
Total	7	181	5	(17)
Air District Average Daily Threshold	54	54	82	54
Exceeds Air District Threshold?	No	**Yes**	No	No
	Criteria Air Pollutants (tons/year)			
Category	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Total Emissions Year 4	1	32	<1	1
Air District Annual Threshold	10	10	15	10
Exceeds Air District Threshold?	No	**Yes**	No	No

Source: California Emissions Estimator Model (CalEEMod), Version 2022.1.
Note: Emissions represent rounded results. Estimates in parentheses represent negative numbers.

Overlapping Construction and Operation Activities

For projects with a phased construction schedule that result in concurrent construction and operations, the Air District recommends that construction-related emissions be combined with operational emissions for all phases where construction and operations overlap.[56] As shown in **Table 3.2-11**, the net increase in operational emissions generated by the ferry terminal operations concurrent with construction of visitor-serving uses (see "Year 2 Overlap", "Year 3 Overlap", and "Year 4 Overlap" rows in **Table 3.2-11**) would not exceed the Air District's thresholds. Thus, the overlapping of construction and operation activities associated with the proposed project would not cumulatively contribute to the nonattainment designations of the SFBAAB. Therefore, during overlap of operation of the ferry terminal and construction of the visitor-serving uses, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The impact would be less than significant.

3.2.5.2.3 Mitigation Measures

No mitigation is required for construction. For operations, there is no feasible mitigation available.

3.2.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact for construction of the proposed project as the impact would be less than significant during construction. However, as shown in **Table 3.2-12**, operation of the proposed project in its first full year of operation would exceed the Air District's significance thresholds for NO_X emissions. Operation of the ferry terminal by itself would result in an emissions inventory that does not exceed Air District significance thresholds for criteria air pollutants or precursors; however, the added mobile source emissions generated from operation of the visitor-serving uses would cause the operational emissions of the proposed project to exceed the Air District's significance threshold for whether a project would result in cumulatively considerable net increase of any criteria air pollutant, or precursor, for which the SFBAAB is non-attainment under an applicable federal or State ambient air quality standard.

The primary emission source causing the Air District threshold exceedance would result from privately owned and operated vehicles traveling to and from the visitor-serving uses. However, controlling this emission source is outside the control of the Port, the City, or the project. As such, there is no feasible mitigation available to reduce mobile source emissions sufficiently to result in a less than significant impact. Moreover, the ferries used during operation of the ferry terminal would already be equipped with USEPA Tier 4 engines, which represent the latest engine emission control standards for marine vessels and set not-to-exceed levels for NO_X and particulate matter emissions. Additionally, WETA envisions replacing these ferry vessels with zero-emission vessels at the end of the life of the ferries commissioned for the proposed project, which would result in a substantial reduction in NO_X and other tailpipe emissions generated by the ferries. However, because this analysis determines the level of impact based on the first year of full operation, the proposed project would result in a significant NO_X emissions impact, and this impact would remain ***significant and unavoidable***.

[56] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines, Appendix E, Section 2.4, Assessing Impacts from Overlapping Activities. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc_lang=en.

3.2.5.3 Impact 3.2-3

Impact 3.2-3: Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

3.2.5.3.1 Construction

Construction Off-Site Community Risk and Hazards

The Air District's significance thresholds for local community risk and hazard impacts consider a project's emissions of TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. TACs include DPMs, considered in the construction HRA as discussed in **Section 3.2.2**. No qualified CRRP applies to the project area. Thus, pursuant to the Air District's health risk significance thresholds, project-level emissions of TACs or $PM_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered significant:

- An excess (i.e., increased) cancer risk level of more than 10 in one million
- Noncancer (i.e., chronic or acute) hazard index greater than 1.0
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$[57]

The proposed project would elevate concentrations of TACs and $PM_{2.5}$ in the vicinity of sensitive land uses during construction activities. The nearest receptors to the project site include workers adjacent to the site to the south and southeast and liveaboards located at the Port of Redwood City Municipal Marina and the Westpoint Harbor, approximately 1 mile to the southwest and 2,000 feet to the east, respectively. Accordingly, multiple nearby receptors are adjacent to or near the project site and therefore could be impacted from the proposed construction activities. Consequently, a site-specific HRA of TACs and $PM_{2.5}$ was prepared (see Appendix B) which analyzed impacts at these receptor locations. As discussed in **Section 3.2.2**, the HRA incorporates analysis of two separate construction scenarios: construction of the ferry terminal, and construction of the future visitor-serving uses.

3.2.5.3.1.1 Ferry Terminal

The quantified health risk analysis from exposure to the construction emissions associated with the ferry terminal is shown in **Table 3.2-13** in **Section 3.2.5.3.2.3** below, which assumes implementation of BMPs for dust control listed in **Section 3.2.5.2.1**. The emission estimates account for all phases of construction envisioned for the proposed ferry terminal, including the imported fill material used to raise the site elevation which would involve up to 100 daily hauling truck trips along Seaport Boulevard.

As shown in **Table 3.2-13**, construction of the ferry terminal (Phase 1 Construction) would result in an exceedance of the Air District's annual average $PM_{2.5}$ concentration threshold of 0.3 $\mu g/m^3$ with an estimated 0.37 $\mu g/m^3$ at the maximally impacted worker receptor location, which represents the location of off-site workers adjacent to the south-western project boundary. Construction of the ferry terminal would elevate $PM_{2.5}$ concentrations at this adjacent worker receptor location primarily due to its proximity to on-site construction equipment use and hauling truck trips when the site elevation is initially raised.

[57] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

Therefore, construction of the ferry terminal would expose sensitive receptors to substantial pollutant concentrations and the impact would be significant.

3.2.5.3.1.2 Visitor-Serving Uses

The quantified health risk analysis from exposure to the construction emissions associated with the future visitor-serving uses is shown in **Table 3.2-13**, which assumes implementation of BMPs for dust control listed in **Section 3.2.5.2.1**. As shown in **Table 3.2-13**, construction of the visitor-serving uses (Phase 2 Construction) would not exceed any of the Air District's health risk thresholds at the maximally impacted receptor (MIR) locations for each receptor type (e.g., worker, resident) within the project site vicinity. As such, construction of the visitor-serving uses would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

3.2.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

A combined project health risk analysis is provided in **Section 3.2.5.3.2.3**, that combines construction, operation, and overlap of construction and operation of the proposed project.

3.2.5.3.2 Operations

Operation Phase Community Risk and Hazards

The Air District's significance thresholds for local community risk and hazard impacts consider a project's emissions of TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. TACs, including DPM, are considered in the operation phase HRA as discussed in **Section 3.2.2**.

Operation of the proposed project would elevate concentrations of TACs and $PM_{2.5}$ in the vicinity of sensitive land uses during operational activities of both the ferry terminal and future visitor-serving uses. The nearest receptors to the project site include workers adjacent to the site to the south and southeast and liveaboards located at the Port of Redwood City Municipal Marina and the Westpoint Harbor, approximately 1 mile to the southwest and 2,000 feet to the east, respectively. In addition, worker receptors are present at the businesses adjacent to the San Francisco and Oakland ferry terminals where ferries would idle. Accordingly, multiple nearby receptors are adjacent to or in close proximity to the project site and therefore could be impacted from the proposed operational activities. Consequently, a site-specific HRA of TACs and $PM_{2.5}$ was prepared (see Appendix B) which analyzed impacts at these receptor locations. As discussed in **Section 3.2.2**, the HRA incorporates analysis of two separate operational scenarios: operation of the ferry terminal while future visitor-serving uses are being constructed, and full operation of the ferry terminal and future visitor-serving uses.

CO Hotspot Analysis

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the State 1-hour standard of 20 ppm or the 8-hour standard of 9 ppm.

As previously identified, the Air District recommends the following criteria be considered when assessing whether a project could result in a CO hotspot. A project would not have a significant impact related to creation of CO hotspots if all of the following criteria are met:

- The project is consistent with an applicable congestion management program established by the County Congestion Management Agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

3.2.5.3.2.1 Ferry Terminal

Operation Phase Community Risk and Hazards

The quantified health risk analysis from exposure to the operational emissions associated with the ferry terminal is shown in **Table 3.2-13**. As shown in **Table 3.2-13**, operation of the ferry terminal would not result in an exceedance of the Air District's health risk thresholds, neither independently (Phase 1 Operation) nor in combination with future visitor-serving uses for a full operation scenario, at the MIR location for each receptor type (e.g., worker, resident) present in the project vicinity. As such, the impact would be less than significant.

CO Hotspot Analysis

The ferry terminal would not conflict with the 2023 San Mateo CMP because it would not hinder the capital improvement projects outlined in the CMP or alter regional travel patterns.[58] The ferry terminal would support the objectives of WETA's 2050 Service Vision and Expansion Policy[59] for the regional ferry system to address a growing need for new Bay Area transportation options, especially for transit dependent communities around Redwood City. There would be a Caltrain shuttle service to and from the project site that would provide connectivity to downtown Redwood City and other transit connections, including the SamTrans Redwood City Transit Center which is co-located with the Caltrain Redwood City Station. The project site is proximate to a well-established urban community, near employment centers, roadways, transit, and bicycle and pedestrian routes. Therefore, the ferry terminal would not conflict with the 2023 CMP and would be consistent with the overall growth projections accounted for in the emissions forecasts of the 2017 Clean Air Plan.

Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact. As documented in Appendix H, Transportation Study Report, of this Draft EIR, the studied intersection or roadway segment that would result in the greatest peak hour traffic volumes under future plus project conditions for the ferry terminal would be US 101 between Marsh Road and Woodside Road with an estimated 19,650 AM peak hour trips and 19,810 PM peak hour trips. Therefore, the ferry terminal would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour or

[58] City/County Association of Governments of San Mateo County. October 2023. 2023 San Mateo County Congestion Management Program. Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf.

[59] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited.[60] As a result, the ferry terminal would not substantially increase CO hotspots at intersections in the project vicinity and the impact would be less than significant.

3.2.5.3.2.2 Visitor-Serving Uses

Operation Phase Community Risk and Hazards

The quantified health risk analysis from exposure to the operational emissions associated with the visitor-serving uses is shown in **Table 3.2-13**. As shown in **Table 3.2-13**, operation of the visitor-serving uses in combination with the ferry terminal (Full Operation) would not result in an exceedance of the Air District's health risk thresholds at the MIR location for each receptor type (e.g., worker, resident) present in the project vicinity. As such, the impact would be less than significant.

CO Hotspot Analysis

The visitor-serving uses would not conflict with the 2023 San Mateo County CMP because it would not hinder the capital improvement projects outlined in the CMP or alter regional travel patterns.[61] Moreover, the visitor-serving uses would support recreational and commercial development along the waterfront in alignment with the Port's 2020 Vision Plan. The project site is near a well-established urban community, near employment centers, roadways, transit, and bicycle and pedestrian routes. Therefore, the visitor-serving uses would not conflict with the 2023 CMP and would be consistent with the overall growth projections accounted for in the emissions forecasts of the 2017 Clean Air Plan.

Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—to generate a significant CO impact. As documented in Appendix H, Transportation Study Report, of this Draft EIR, the studied intersection or roadway segment that would result in the greatest peak hour traffic volumes under future cumulative project conditions for the addition of the visitor-serving uses with the ferry terminal (i.e., full project buildout) would be US 101 north of Whipple Avenue with an estimated 19,960 AM peak hour trips and 19,410 PM peak hour trips. Therefore, the visitor-serving uses would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited.[62]

As a result, the visitor-serving uses would not substantially increase CO hotspots at intersections in the project vicinity and the impact would be less than significant.

[60] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[61] City/County Association of Governments of San Mateo County. October 2023. 2023 San Mateo County Congestion Management Program. Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf.

[62] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

3.2.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction, operation, and overlap of construction and operation of the proposed project are considered in combined project risk analysis. Construction and operation of the proposed project—construction of the ferry terminal and associated site improvements, overlap of construction of the visitor-serving uses and operation of the ferry terminal, and full operation of both the ferry terminal and future visitor-serving uses—would elevate TAC and $PM_{2.5}$ concentrations at nearby receptors. As discussed in greater detail in the HRA in Appendix B, receptors near the project area that were analyzed included residential and worker receptors around the project site and worker receptors around the Oakland and San Francisco terminals. In addition, the San Carlos Airport meteorological data utilized in the HRA to represent wind patterns (e.g., wind strength and direction, calm periods) reflect a dominant wind pattern blowing to the east, with winds blowing from the west comprising the largest frequency at speeds predominantly in the 4–17 knot range. A secondary flow to the southeast is also evident, while calm conditions are rare, indicating a site characterized by persistent, moderate-to-strong onshore westerly winds typical of the San Francisco Bay Area's coastal influence.

Table 3.2-13 shows the health risk and maximum annual average $PM_{2.5}$ concentrations during each project scenario and in total. As shown in **Table 3.2-13**, construction of the ferry terminal (Phase 1 Construction) would result in an exceedance of the Air District's health risk threshold, specifically the annual average $PM_{2.5}$ concentration threshold of 0.3 µg/m^3, with an estimated 0.37 µg/m^3 at the maximally impacted worker receptor location; the impact would be significant. Construction and operation of the project at buildout would not result in an exceedance of Air District significance thresholds during any other scenario at the MIR location for each receptor type (e.g., worker, resident) present in the project vicinity, and the impact would be less than significant. Overall, the project would have a significant impact related to exposing sensitive receptors to substantial pollutant concentrations.

Table 3.2-13 Project Health Risk Summary

Receptor	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)
Phase 1 Construction (0.9 Year)			
MIR – Resident[1]	3	0.1	0.05
MIR – Worker[2]	1	0.7	**0.37**
Phase 1 Operation (2 Years)			
MIR – Resident	<1	<0.1	<0.01
MIR – Worker	<1	<0.1	<0.01
Phase 2 Construction (2 Years)			
MIR – Resident	<1	<0.1	0.01
MIR – Worker	<1	0.1	0.05
Full Operation			
MIR – Resident (27 Years)	1	<0.1	0.01
MIR – Worker (22 Years)	1	0.2	0.10
Total Risk			
MIR – Resident	4	0.1	0.05
MIR – Worker	2	0.1	**0.37**
Air District Threshold	10	1.0	0.30
Exceeds Threshold?	No	No	Yes

Source: Lakes AERMOD View, 13.0.0, and HARP v22118. See Appendix B of this Draft EIR.
Notes:
Phase 1 = ferry terminal and all other site improvements other than the visitor-serving uses. Phase 2 = visitor-serving uses only. Total Risk = total 30-year exposure for sensitive receptors (e.g., residents), and total 25-year exposure for worker receptors, starting with Phase 1 construction. Cancer risk calculated using 2015 Office of Environmental Health Hazard Assessment Health Risk Assessment (OEHHA) Guidance Manual.
[1] MIR-Resident refers to the residential receptor within the project vicinity that experienced the greatest impact of all analyzed residential receptors during construction and operation of the proposed project. This considers receptors surrounding the project site in Redwood City as well as receptors adjacent to the Oakland and San Francisco ferry terminal sites.
[2] MIR-Worker refers to the worker receptor within the project vicinity that experienced the greatest impact of all analyzed worker receptors during construction and operation of the proposed project. This considers receptors surrounding the project site in Redwood City as well as receptors adjacent to the Oakland and San Francisco ferry terminal sites.
Key: MIR = maximally impacted receptor; $\mu g/m^3$ = micrograms per cubic meter

3.2.5.3.3 Mitigation Measures

Construction of the ferry terminal would result in an exceedance of the Air District's health risk threshold at the maximally impacted worker receptor location. The following mitigation measure would reduce impacts related to exposure of sensitive receptors to substantial pollutant concentrations:

MM AQ-1. The project construction contractor(s) and subcontractor(s) must comply with the following requirements for all land-based off-road equipment used over the entire duration of the ferry terminal construction activities occurring at the ferry terminal project site:

- Use engines that meet either USEPA or CARB Tier 4 Final emission standards for engines that are greater than 50 horsepower. Ensure that all construction plans submitted to the City of Redwood City Planning Division clearly show the selected emission reduction strategy for construction equipment over 50 horsepower.

- If Tier 4 Final equipment is not available for use for the project for a specific piece of off-road construction equipment, documentation shall be provided to the Port demonstrating that such equipment is not available for the project. If Tier 4 Final equipment is not available, the construction contractor(s) and subcontractor(s) affected shall use Tier 4 Interim equipment instead. If Tier 4 Interim equipment is not available for use for the project for a specific piece of off-road construction equipment, documentation shall be provided to the Port demonstrating that such equipment is not available for the project. If Tier 4 Interim equipment is not available, the construction contractor(s) and subcontractor(s) affected shall use Tier 3 equipment outfitted with a level 3 diesel particulate filter instead.
- Maintain a list of all operating equipment in use on the project site for verification by the Port or their designee. The construction equipment list shall state the makes, models, fuel type, and number of construction equipment on-site. All equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.
- All non-essential idling of construction equipment shall be restricted to 5 minutes or less in compliance with CARB Rule 2449. The Port must communicate with all sub-contractors in contracts and construction documents that they are responsible for ensuring that this requirement is met.
- The Port of Redwood City shall ensure construction bids specify these requirements.

3.2.5.3.4 Significance of Impact After Mitigation

As shown in **Table 3.2-13**, the only significance threshold exceedance from construction and operation of the proposed project would consist of an exceedance of the annual average $PM_{2.5}$ concentration at the worker MIR location during construction of the ferry terminal (Phase 1 Construction). As such, Mitigation Measure MM AQ-1 would reduce the proposed project's localized construction emission concentrations at the worker MIR location, as shown in **Table 3.2-14**. The results indicate that, with mitigation, the annual average $PM_{2.5}$ concentration would be less than the Air District's significance threshold at the worker MIR; all other receptors would be less than the Air District's significance thresholds during unmitigated project construction and operation. Therefore, the proposed project would not expose nearby receptors to substantial concentrations of air pollutant emissions during construction and operation with implementation of Mitigation Measure MM AQ-1, and this impact would be less than significant with mitigation.

Table 3.2-14 Mitigated Project Health Risk Summary

Receptor	Cancer Risk (per million)	Chronic Hazards	$PM_{2.5}$ ($\mu g/m^3$)
Total Risk			
MIR – Worker	2	0.1	0.29
Air District Threshold	10	1.0	0.30
Exceeds Threshold?	No	No	No

Source: Lakes AERMOD View, 13.0.0, and HARP v22118. See Appendix B of this Draft EIR.
Key: MIR = maximally impacted receptor; $\mu g/m^3$ = micrograms per cubic meter

3.2.5.4 Impact 3.2-4

Impact 3.2-4: Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

3.2.5.4.1 Construction

3.2.5.4.1.1 Ferry Terminal

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary, intermittent, and typically confined to the immediate vicinity of the construction site. The dredging that would occur would extract creek sediment that contains organic material. Low levels of odor associated with natural decay of the organic material could occur during the dredging of sediments. This would be temporary during the dredging process. Further, dredging would not occur in the immediate vicinity of any sensitive receptors or otherwise in the immediate vicinity of a substantial number of people. Additionally, odors dissipate with distance. There are no sensitive land uses relative to potential odor impacts located near the project-related construction areas. The closest residential land uses east of the project site are liveaboards located approximately 2,000 feet to the east and 1 mile to the southwest. As mentioned above, odors would primarily be confined to the immediate vicinity of the construction site, and by the time such emissions reach any odor-sensitive receptor sites, they would be diluted well below any level of air quality concern. Therefore, construction of the ferry terminal would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people; the impact would be less than significant.

3.2.5.4.1.2 Visitor-Serving Uses

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary, intermittent, and typically confined to the immediate vicinity of the construction site. As described for the ferry terminal above, by the time such emissions reach any odor-sensitive receptor sites off-site, they would be diluted well below any level of air quality concern. Therefore, construction of the visitor-serving uses would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people; the impact would be less than significant.

3.2.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, any construction-related odor emissions would be temporary, intermittent, and typically confined to the immediate vicinity of the construction site. Therefore, construction of the proposed project would have a less than significant impact on emissions leading to odors that would adversely affect a substantial number of people.

3.2.5.4.2 Operations

3.2.5.4.2.1 Ferry Terminal

Odor generation from operation of the ferry terminal would largely result from trash receptacles and vehicle and vessel exhaust. The ferry terminal would not be considered a land use type identified by the

Air District in Table 5-4 of the Air District's CEQA Air Quality Guidelines[63] as a major odor source (see **Section 3.2.4.1**), and the project would be required to comply with District Regulation 7, Odorous Substances. Therefore, operation of the ferry terminal would not result in other emissions, such as those leading to odors, that would affect a substantial number of people; the impact would be less than significant.

3.2.5.4.2.2 Visitor-Serving Uses

Odor generation from operation of the visitor-serving uses would largely result from trash receptacles, commercial cooking from the restaurant, and vehicle exhaust. The visitor-serving uses would not be considered a land use type identified by the Air District in Table 5-4 of the Air District's CEQA Air Quality Guidelines[64] as a major odor source (see **Section 3.2.4.1**), and the visitor-serving uses would be required to comply with District Regulation 7, Odorous Substances. Therefore, operation of the visitor-serving uses would not result in other emissions, such as those leading to odors, that would affect a substantial number of people; the impact would be less than significant.

3.2.5.4.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would not be an odor-generating land use type identified by the Air District and the proposed project would be required to comply with District Regulation 7. Therefore, operation of the proposed project would have a less than significant impact on emissions leading to odors that would adversely affect a substantial number of people.

3.2.5.4.3 Mitigation Measures

No mitigation is required for construction or operations.

3.2.5.4.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.2.5.5 Cumulative Impacts

The cumulative area of analysis is the SFBAAB. As identified in **Section 3.2.3**, California is divided into air basins for the purpose of managing the air resources of the State on a regional basis based on meteorological and geographic conditions. Air quality impacts are regional and cumulative in nature as no single project generates enough emissions that would cause an air basin to be designated as a nonattainment area.

3.2.5.5.1 AQMP Consistency

As discussed under Impact 3.2-1, regional population, housing, and employment projections developed by ABAG are based, in part, on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the 2017 Clean Air Plan for the SFBAAB. These demographic trends are incorporated into Plan Bay Area 2050+,[65] compiled by ABAG and the MTC to determine priority

[63] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[64] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[65] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

transportation projects and VMT in the Bay Area. The 2017 Clean Air Plan strategy is based on these projections from local general plans. The geographic scope for this analysis of cumulative impacts related to AQMP consistency is thus the SFBAAB.

The proposed project would not conflict with or obstruct the implementation of the Air District's AQMP. Construction activities associated with the proposed project would result in short-term employment only and would end upon project completion. Additionally, short-term air quality emissions contributed by the proposed project are considered less than significant under the applicable thresholds. Similarly, operation of the proposed project would not increase the need for housing or cause a substantial increase in local population or employment and, thus, would be consistent with the growth projections accounted for in the regional emissions forecasts of the 2017 Clean Air Plan.

Other projects in the SFBAAB would also be required to demonstrate consistency with the 2017 Clean Air Plan and ensure that regional emissions generated by the project are reduced to below the Air District's emissions thresholds. Those regional emissions generated by projects would need to be compared against the Air District's significance thresholds to determine whether that project's emissions could contribute to an existing or forecast ambient air quality standard violation, and regional growth projections of those projects would need to be accounted for in the consistency evaluation with the 2017 Clean Air Plan. As a result, the growth projections of the proposed project in combination with other projects' growth projections in the SFBAAB would not conflict with or obstruct implementation of the applicable air quality plan.

The forecasted growth coupled with the proposed project would not result in significant impacts related to conflict with or obstruction of the Air District's AQMP. The proposed project's contribution to conflicting with or obstructing the Air District's AQMP would not be cumulatively considerable.

3.2.5.5.2 Criteria Air Pollutants

As described above, air quality impacts are regional and cumulative in nature as no single project generates enough emissions to cause an air basin to be designated as a nonattainment area. Impact 3.2-2 analyzes potential cumulative impacts to air quality that could occur from construction and operation of the proposed project in the context of regional growth projections in the SFBAAB. As shown in **Table 3.2-7** and **Table 3.2-8**, construction of the proposed project would not exceed the Air District's significance thresholds, which represent the levels at which an individual project's contribution of emissions to regional air quality impacts are cumulatively considerable. In addition, as shown in **Table 3.2-11**, the proposed project would not exceed the Air District's significance thresholds when accounting for overlapping construction of the visitor-serving uses with operation of the ferry terminal. Further, construction of the proposed project would be required to implement the Air District's dust control BMPs and the City's COAs and SDRs; other projects in the City would be required to implement the City's COAs and SDRs, and other projects within SFBAAB would be recommended to comply with the Air District's dust control BMPs. Compliance with these dust control BMPs would ensure that cumulative construction fugitive dust emissions would be less than significant.

As shown in **Table 3.2-12**, operation of the ferry terminal and visitor-serving uses would exceed the Air District's significance criteria for NO_X but not for any other criteria air pollutant and precursor for which the Air District has adopted significance thresholds, which represent the level at which an individual project's contribution of emissions to regional air quality impacts are cumulatively considerable.

Consequently, the proposed project's impacts would be significant and it would cumulatively contribute to the non-attainment ozone designations of the SFBAAB.

3.2.5.5.3 Toxic Air Contaminants and $PM_{2.5}$

As discussed in **Section 3.2.4.1**, for cumulative health risks, the Air District recommends that the project risk results be combined with those identified for all known sources within 1,000 feet of the MIR location and compared against the Air District's cumulative significance thresholds to determine whether a project may cause or contribute to a cumulatively considerable impact. A project would have a cumulatively considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds any of the following in the absence of a qualified CRRP:

- An excess cancer risk level of more than 100 in one million (from all local sources)
- Chronic noncancer hazard index (from all local sources) greater than 10.0
- 0.8 µg/m^3 annual average $PM_{2.5}$ (from all local sources)[66]

Because the project-level cancer risks were higher at the resident MIR, as shown in **Table 3.2-13**, the resident MIR was used in the cumulative health risk analysis contained in the HRA in Appendix B. However, because the worker MIR would experience a higher project-level $PM_{2.5}$ concentration than the resident MIR, both MIRs are disclosed herein to determine whether the proposed project in combination with other TAC sources would result in a cumulatively considerable health risk impact at either MIR location. **Table 3.2-15** shows the unmitigated project risk results from **Table 3.2-13** combined with known TAC sources within 1,000 feet of the residential MIR with available data, which represents the closest MIR distance between the worker MIR and resident MIR to nearby permitted stationary sources. Because both receptor types are located on the same peninsula that hosts the Port of Redwood City and are therefore not in uniquely separate locations with varying existing on-road and marine traffic, the Roadway & Highway Impacts and Marine Impacts shown in **Table 3.2-15**, which reflect the resident MIR location, are assumed to also be representative of the impacts experienced at the worker MIR location. It should be noted that the worker MIR location would experience elevated marine traffic when compared to the resident MIR during operation of the ferry terminal; however, this elevated marine traffic associated with the ferry service is included in the proposed project impacts disclosed in **Table 3.2-15**. As shown therein, the project's construction and operations emissions combined with those of nearby TAC sources would not exceed the Air District's cumulative significance thresholds, and this cumulative impact would be less than significant. Additionally, incorporation of Mitigation Measure MM AQ-1 to reduce project-level impacts would further reduce cumulative health risk impacts resulting from project implementation.

[66] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

Table 3.2-15 Unmitigated Cumulative Project Health Risk Summary

Source	Source Type	Distance to MIR	Cancer Risk (per million)	Chronic Hazard Index	$PM_{2.5}$ ($\mu g/m^3$)
Project Impacts (MIR – Resident)					
Project Construction & Operation	Diesel Construction Equipment	-	4	0.1	0.05
Project Impacts (MIR – Worker)					
Project Construction & Operation	Diesel Construction Equipment	-	2	<0.1	0.37
Permitted Stationary Source Impacts					
City of Redwood City (Facility ID 17491)	Generator	375	<1	<0.1	<0.01
Google Inc (Facility ID 22859)	Generator	910	<1	<0.1	<0.01
Google Inc (Facility ID 22861)	ND	950	5	<0.1	<0.01
Roadway & Highway Impacts					
Air District-provided Roadway values	Vehicles	-	<1	<0.1	0.02
Marine Impacts					
Air District-provided Marine values	Vessels	-	ND	ND	ND
Cumulative Health Impacts (MIR – Resident)	-	-	10	0.1	0.07
Cumulative Health Impacts (MIR – Worker)	-	-	8	<0.1	0.39
Air District Threshold	-	-	100	10.0	0.80
Exceeds Threshold?	-	-	No	No	No

Source: Lakes AERMOD View, 13.0.0, and HARP v22118. See Appendix B of this Draft EIR.
Note: Distance to MIR corresponds to the distance (feet) between the source and the resident MIR, which represents the closest MIR to those sources between the resident and worker MIRs.
Key: $\mu g/m^3$ = micrograms per cubic meter. ND = no data.

Moreover, the proposed project would not result in construction traffic volumes that could exceed the Air District's screening criteria for localized CO hotspots. As documented in emissions modeling contained in Appendix B, the maximum daily construction vehicle trips would be an estimated 133 trips when accounting for worker passenger vehicle trips, vendor delivery trips, and truck hauling trips. As documented in Appendix H, Transportation Study Report, of this Draft EIR, the roadway segment or intersection which currently experiences the greatest peak hour traffic volumes under existing conditions would be US 101 north of Whipple Avenue with an estimated 16,950 AM peak hour trips and 16,680 PM peak hour trips. Construction vehicle trips generated by the project would be distributed among the local roadway network; however, assuming they all would occur during the AM peak hour on US 101 north of Whipple Avenue would increase the maximum peak hour volume to 17,083. In addition, as discussed in **Section 3.2.5.3.2.2**, cumulative future conditions with full project implementation would not cause nearby roadway segments or intersections to exceed the Air District's screening criteria during operation

and would not generate a localized CO hotspot. Therefore, neither construction nor operation of the proposed project would not cause nearby roadway segment or intersection volumes to exceed 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, and this cumulative impact would be less than significant.

Therefore, implementation of the proposed project would not result in significant cumulative air quality impacts in the area. The proposed project combined with existing TAC sources within 1,000 feet of the project site together would not result in significant cumulative air quality impacts and thus, the proposed project would not result in significant cumulative impacts related to exposing sensitive receptors to substantial pollutant concentrations. The proposed project's contribution to exposing sensitive receptors to substantial pollutant concentrations would not be cumulatively considerable.

3.2.5.5.4 Odors

Odors dissipate with distance and thus, the geographic area for assessing cumulative impacts related to odor-causing emissions is the project area and the immediate surroundings. The project site is located within the Port that includes heavy maritime industry uses that may generate odors. Liveaboards that reside in the Port of Redwood City Municipal Marina and the Westpoint Harbor are the only sensitive uses in close proximity to Port operations. The Port uses are consistent with the General Plan, as well as other applicable land use plans, and thus are consistent with the growth projections contained in the Plan Bay Area 2050+. Additionally, Port uses are subject to District Regulation 1, Rule 1-301, Public Nuisance described in **Section 3.2.3.2.2**.

As described under Impact 3.2-4, the proposed project is located 2,000 feet from the nearest sensitive land uses and would not be an odor-generating land use type identified in Table 5-4 of the Air District's CEQA Air Quality Guidelines.[67] Additionally, the proposed project would be required to comply with District Regulation 7, which would require the Port to address odor complaints received by the Air District. The proposed project would not constitute a major odor-generating land use, would be approximately 2,000 feet from the nearest sensitive receptor, and would not be located near a substantial number of people. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The adopted growth projections and proposed project together would not result in significant cumulative odor impacts in the area and thus, the forecasted growth coupled with the proposed project would not result in significant impacts. The proposed project's contribution to other emissions (such as those leading to odors) adversely affecting a substantial number of people would not be cumulatively considerable.

3.2.5.5.5 Mitigation Measures

No mitigation is required for AQMP consistency, cumulative health risk, and odors. However, operation of the ferry terminal and visitor-serving uses would exceed the Air District's significance criteria for NO_X. Consequently, the proposed project's impacts would be significant and it would cumulatively contribute to the non-attainment ozone designations of the SFBAAB. There is no feasible mitigation available to reduce mobile source emissions associated with the proposed project.

[67] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

3.2.5.5.6 Significance of Impact After Mitigation

As discussed in **Section 3.2.5.2.4**, no feasible mitigation exists that could reduce operational NO_X emissions from mobile sources as these emission sources are outside the control of the Port, the City, and the project. Moreover, the ferries used during operation of the ferry terminal would already be equipped with USEPA Tier 4 engines, which represent the latest engine emission control standards for marine vessels and set not-to-exceed levels for NO_X and particulate matter emissions. Additionally, WETA envisions replacing these ferry vessels with zero-emission vessels at the end of the life of the ferries commissioned for the proposed project, which would result in a substantial reduction in NO_X and other tailpipe emissions generated by the ferries. However, because this analysis determines the level of impact based on the first year of full operation, the proposed project would result in a significant NO_X emissions impact, and this impact would remain ***significant and unavoidable***.

3.2.6 Significant Unavoidable Impacts

Impacts associated with NO_X emissions from mobile sources during operation of the proposed project would be significant and unavoidable; therefore, cumulative impacts related to regional air quality would be significant and unavoidable. Construction of the proposed project would have less than significant air quality impacts, and health risks associated with construction and operation of the proposed project would be less than significant with mitigation. Impacts related to AQMP consistency and odors would be less than significant during construction and operation of the proposed project.

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Section 3.3
Biological Resources

3.3.1 Introduction

This section describes the regulatory framework and existing conditions in the project site area related to biological resources, and the impacts from implementation of the proposed project. It evaluates impacts from construction and operation of the proposed project. The impact analysis section considers: (1) candidate, sensitive, or special-status species, (2) riparian habitats or other sensitive natural communities, (3) State or federally protected wetlands, (4) the movement of any native resident or migratory fish or wildlife species, (5) conflicts with local policies or ordinances protecting biological resources, and (6) conflicts with local, regional, or State habitat conservation plans. This section is based on the Biological Resources Report prepared by H.T. Harvey & Associates (Appendix C of this Draft EIR).[1] For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.3.2 Methodology

3.3.2.1 Background Review

Prior to conducting a site visit, H. T. Harvey and Associates ecologists reviewed background information on the sensitive biological resources potentially present in and immediately adjacent to the project site. The information reviewed included records from the California Natural Diversity Database (CNDDB) and the California Native Plant Society's (CNPS's) Online Rare Plant Inventory.

CNDDB records were reviewed for special-status animals and natural communities of concern in the vicinity (within a 2-mile radius) of the project area.[2] Additionally, the Natural Resources Conservation Service (NRCS) Web Soil Survey was used to identify soils that underlay the project area, and the U.S. Fish and Wildlife Service's (USFWS's) National Wetlands Inventory (NWI) Wetlands Mapper was consulted to review pre-existing mapping of aquatic features, including wetlands, streams, and sloughs, that may be present in the project area. Historical aerial imagery of the project site and surrounding area obtained from Google Earth Pro was also evaluated. Other information reviewed included various technical publications available through the USFWS, California Department of Fish and Wildlife (CDFW), and other sources (refer to Section 7, References, of Appendix C).

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[1] Analyses of biological impacts associated with expanded ferry service transiting San Francisco Bay in the Final Program EIR prepared for the Expansion of Ferry Transit Service in the San Francisco Bay Area and the Final Environmental Impact Statement/EIR for the Downtown San Francisco Ferry Terminal Expansion Project are incorporated by reference (WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation; WETA and U.S. Department of Transportation Federal Transit Administration (FTA) Region IX. September 2014. Downtown San Francisco Ferry Terminal Expansion Project Final Environmental Impact Statement/Environmental Impact Report. Prepared by URS Corporation.)

[2] The "project area" referred to in this section consists of the project site and landside components where construction would occur and the ferry routes in Redwood Creek, Westpoint Slough, and San Francisco Bay. The approximately 14-acre project area consists of the 9.2 acre project site, which includes both waterside and landside components, as well as the Seaport Boulevard Corridor, waterfront park, western public parking lot and maintenance building, relocated maintenance building site, a frontage road, and relocated railroad tracks.

The Redwood City Focused General Plan Update Draft EIR and Appendices[3] were also reviewed. The project area is part of the Redwood City General Plan area, and development in the project area is therefore subject to requirements of the General Plan and its EIR, as appropriate. The following documents were also reviewed to provide more context for this analysis:

- Port of Redwood City Wharves 1 and 2 Redevelopment Project Draft and Final EIRs[4]
- Port of Redwood City Wharves 3 and 4 Fender Replacement Project Initial Study/Mitigated Negative Declaration (IS/MND)[5]
- CEMEX Ready-Mix Concrete Plant Project IS/MND[6]
- Pacific Shores Center Project Draft and Final EIR[7,8]
- 505 E. Bayshore Road Project Draft EIR[9]
- Downtown San Francisco Ferry Terminal Expansion Project Draft and Final EIS/EIR[10,11]
- Richmond Ferry Terminal Project Draft IS/MND[12]
- Alameda Main Street Ferry Terminal Refurbishment Project Final IS/MND[13]
- Vallejo Ferry Terminal Reconfiguration Project Draft IS/MND[14]

3.3.2.2 Site Visits

H. T. Harvey & Associates' wildlife ecologist Benjamin Pearl, M.S. and plant ecologist Katie Tyree, B.A., surveyed the project area on June 20, 2024. The purpose of this initial survey was to (1) assess existing biotic habitats and plant and animal communities in the project area; (2) assess the project area for its

[3] City of Redwood City. November 2022. Draft Environmental Impact Report - Housing, Built Environment, Public Safety, Building Community, Natural Resources & Environmental Justice Elements Update to the Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/environmental-documents/general-plan-eir.

[4] Port of Redwood City. 2010. Final Environmental Impact Report for the Wharves 1 and 2 Redevelopment Project. Prepared by ESA.

[5] Port of Redwood City. 2016. Initial Study/Mitigated Negative Declaration for the Wharves 3 and 4 Fender Replacement Project.

[6] Port of Redwood City. 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Prepared by Ascent Environmental.

[7] City of Redwood City. 1994. Draft Environmental Impact Report for the Pacific Shores Center Project. State Clearinghouse #93053065. Prepared by Recon Environmental Corp.

[8] City of Redwood City. 1995. Final Environmental Impact Report for the Pacific Shores Center Project. State Clearinghouse #93053065. Prepared by Recon Environmental Corp.

[9] City of Redwood City. 2022. Draft Environmental Impact Report – 505 E. Bayshore Road Project. Available: https://ceqanet.opr.ca.gov/2021080447/2.

[10] Water Emergency Transportation Authority. 2013. Downtown San Francisco Ferry Terminal Expansion Project Draft Environmental Impact Statement/Environmental Impact Report.

[11] Water Emergency Transportation Authority and U.S. Department of Transportation Federal Transit Administration (FTA) Region IX. September 2014. Downtown San Francisco Ferry Terminal Expansion Project Final Environmental Impact Statement/Environmental Impact Report. Prepared by URS Corporation. Available: https://www.redwoodcityport.com/ferry.

[12] Water Emergency Transportation Authority. 2014. Richmond Ferry Terminal Project Draft Initial Study/Mitigated Negative Declaration. Prepared by Atkins.

[13] Water Emergency Transportation Authority. 2023. Alameda Main Street Ferry Terminal Refurbishment Project Final Initial Study/Mitigated Negative Declaration. Prepared by Dudek.

[14] Water Emergency Transportation Authority. 2024. Vallejo Ferry Terminal Reconfiguration Project Draft Initial Study/Mitigated Negative Declaration. Prepared by Kimley Horn.

potential to support special-status species and their habitats; and (3) identify potential jurisdictional habitats (such as Waters of the U.S./State), although a formal wetland delineation was not conducted at that time.

H. T. Harvey & Associates mapped biotic habitats within the project area using a combination of field observations and aerial imagery signatures. Habitat types were distinguished using natural community descriptions discussed in Holland,[15] Sawyer et al.,[16] and CDFW's Vegetation Classification and Mapping.[17] Plant species within each habitat were identified using descriptions discussed in Baldwin et al.[18] Habitat acreages were calculated using geographic information systems (GIS) and aerial imagery interpretation.

Follow-up site visits were conducted by K. Tyree on July 30, 2024 and August 28, 2024. The purpose of these follow-up site visits was to assess the potential presence of California seablite (*Suaeda californica*), a federally endangered plant species, during the time that it was expected to be in bloom.

3.3.3 Existing Conditions

3.3.3.1 Regulatory Setting

Biological resources within the project footprint are regulated by a number of federal, State, and local laws and ordinances, as described below.

3.3.3.1.1 Federal

Clean Water Act

The Clean Water Act (CWA) functions to maintain and restore the physical, chemical, and biological integrity of waters of the U.S., which include, but are not limited to, tributaries to traditionally navigable waters currently or historically used for interstate or foreign commerce, and adjacent wetlands. Historically, in non-tidal waters, U.S. Army Corps of Engineers (USACE) jurisdiction extends to the ordinary high water mark (OHWM), which is defined in Title 33, Code of Federal Regulations, Part 328.3. If there are wetlands adjacent to channelized features, the limits of USACE jurisdiction extend beyond the OHWM to the outer edges of the wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may be subject to USACE jurisdiction. In tidal waters, USACE jurisdiction extends to the landward extent of vegetation associated with salt or brackish water or the high tide line. The high tide line is defined in 33 Code of Federal Regulations Part 328.3 as "the line of intersection of the land with the water's surface at the maximum height reached by a rising tide." The May 25, 2023 U.S. Supreme Court decision in *Sackett v. Environmental Protection Agency* limited the definition of waters of the U.S. by including only wetlands that have a continuous surface connection with traditional navigable waters or their tributaries. On August 29, 2023, the U.S.

[15] Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Unpublished report. California Department of Fish and Game, Natural Heritage Division, Sacramento.

[16] Sawyer, J. O., T. Keeler-Wolf and J. M. Evens. 2009. A Manual of California Vegetation [online]. Second Edition. California Native Plant Society. Available: CNPS.

[17] California Department of Fish and Wildlife. 2025. VegCAMP Natural Communities Lists. Available: https://www.wildlife.ca.gov/data/vegcamp/natural-communities. Accessed May 2025.

[18] Baldwin, B. G.; D. H. Goldman; D. J. Keil; R. Patterson; T. J. Rosatti; and D. H. Wilken (editors). 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press. Berkeley, California.

Environmental Protection Agency and USACE issued a final implementing rule to amend the definition of waters of the U.S. to conform with the *Sackett* decision, which was implemented in September 2023.

Construction activities that would dredge or place fill within jurisdictional waters are regulated by the USACE under Section 404 of the CWA. The dredging and/or placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of Section 401 Water Quality Certification. The State Water Resources Control Board (SWRCB) is the State agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

Compensatory mitigation is required to offset significant adverse impacts on aquatic resources regulated under Section 404 of the CWA that remain after all practicable and appropriate avoidance and minimization has been achieved. Methods for providing compensatory mitigation include restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or preservation in certain circumstances.[19]

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act of 1899 prohibits the creation of any obstruction to the navigable capacity of waters of the U.S., including discharge of fill and the building of any wharfs, piers, jetties, and other structures without Congressional approval or authorization by the Chief of Engineers and Secretary of the Army (33 U.S.C. 403).

Navigable waters of the U.S., which are defined in 33 CFR, Part 329.4, include all waters subject to the ebb and flow of the tide, and/or those which are presently or have historically been used to transport commerce. The shoreward jurisdictional limit of tidal waters is further defined in 33 CFR, Part 329.12 as "the line on the shore reached by the plane of the mean (average) high water." It is important to understand that the USACE does not regulate wetlands under Section 10, only the aquatic or open waters component of Bay habitat, and that there is overlap between Section 10 jurisdiction and Section 404 jurisdiction. According to 33 CFR, Part 329.9, a waterbody that was once navigable in its natural or improved state retains its character as "navigable in law" even though it is not presently used for commerce as a result of changed conditions and/or the presence of obstructions. Historical Section 10 waters may occur behind levees in areas that are not currently exposed to tidal or muted-tidal influence, and meet the following criteria: (1) the area is presently at or below the mean high water line; (2) the area was historically at or below mean high water in its "unobstructed, natural state"; and (3) there is no evidence that the area was ever above mean high water.[20]

As mentioned above, Section 404 of the CWA authorizes the USACE to issue permits to regulate the discharge of dredged or fill material into waters of the U.S. If a project also proposes to discharge dredged or fill material and/or introduce other potential obstructions in navigable waters of the U.S., a Letter of Permission authorizing these impacts must be obtained from the USACE under Section 10 of the Rivers and Harbors Act.

[19] U.S. Environmental Protection Agency. 2025. Background about Compensatory Mitigation Requirements under CWA Section 404. Available: https://www.epa.gov/cwa-404/background-about-compensatory-mitigation-requirements-under-cwa-section-404.

[20] U.S. Army Corps of Engineers. December 19, 2013. Administrative Appeal Decision Clean Water Act Zeneca Lagoons, Contra Costa County, California San Francisco District File Number SPN-2003-282520S. Available: https://www.spd.usace.army.mil/Portals/13/docs/regulatory/districtdecisions/ZenecaDD.pdf.

Dredged Materials Management Office

In 1996, the USACE recorded a Memorandum of Understanding between USACE and the San Francisco Bay RWQCB, the California State Lands Commission, the U.S. Environmental Protection Agency (USEPA), and the San Francisco Bay Conservation and Development Commission (BCDC) to establish the Dredged Materials Management Office (DMMO). This joint agency office was established to foster a comprehensive, consolidated approach to dredged materials management issues during permitting for dredging projects. The DMMO cooperatively reviews sediment quality sampling plans, analyzes the results of sediment quality sampling, and makes suitability determinations for material proposed for dredging or disposal in San Francisco Bay. The DMMO agencies also review permits for new navigational channel dredging, disposal of dredged material, and maintenance dredging under a separate permit from the DMMO agencies. The DMMO permit process for dredging activities includes application submittal and review. Once the permit is issued, the sediment must be characterized to obtain a suitability determination for disposal or beneficial reuse. Once the sediment is determined to be suitable, an episode approval is needed prior to proceeding with dredging activities.[21]

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or *take*, which is broadly defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." *Take* can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as *take* even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The USFWS and the National Marine Fisheries Service (NMFS) have jurisdiction over federally listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species. Species on these lists are not legally protected under FESA, but may become listed in the near future and are often included in USFWS' review of a project.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States' 200-nautical-mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans (FMPs) to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the NMFS, establish Essential Fish Habitat (EFH) in FMPs for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to recommendations by the NMFS.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the

[21] LTMS Program Agencies. 2021. Dredger's Handbook - A Testing, Permitting, and Reporting Guide for Maintenance Dredging in the San Francisco Bay. Available: https://www.spn.usace.army.mil/Portals/68/docs/Dredging/guidance/LTMS_DredgersHandbook_ADA_final_020221.pdf?ver=6yYVtXfmDBkYJpSjhruw9g%3d%3d.

Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests, and it prohibits the possession of all nests of protected bird species whether they are active or inactive. An *active* nest is defined as having eggs or young, as described by the USFWS in its June 14, 2018 memorandum "Destruction and Relocation of Migratory Bird Nest Contents". Nest starts (nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction. Almost all native bird species are protected under the MBTA.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) prohibits the take of marine mammals, with certain exceptions, in waters under the jurisdiction of the U.S. or by citizens of the U.S. on the high seas, as well as the importation of marine mammals and marine mammal products into the U.S. Take is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Harassment is defined as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

3.3.3.1.2 State

Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne). All areas considered waters of the U.S., as described in **Section 3.3.3.1.1** above, are also considered waters of the State. Porter-Cologne broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because the Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the state include headwaters, wetlands, and riparian areas.[22]

On April 2, 2019 (and revised April 6, 2021), the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*.[23] In these guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The *Procedures* describe riparian habitat buffers as important resources that may both be included in required mitigation packages for permits for impacts to waters of the state.

Pursuant to the CWA, projects that are regulated by the USACE must also obtain a Section 401 Water Quality Certification permit from the RWQCB. This certification ensures that a proposed project will

[22] California State Water Resources Control Board. 2004. Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction (General WDRs). Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2 004-0004.pdf.

[23] California State Water Resources Control Board. 2019 (revised 2021). State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Available: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/ procedures.pdf.

uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on waters of the state require Water Quality Certification even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not. Under the Porter-Cologne Act, the SWRCB and the nine regional boards also have the responsibility of granting CWA National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources. The regional water boards are also required to prepare a water quality control plan, also known as basin plans, within their individual jurisdictions. The San Francisco Bay RWQCB developed the Water Quality Control Plan for the San Francisco Basin[24] which identifies: (1) beneficial uses of surface waters protected by the RWQCB; (2) water quality objectives to protect beneficial uses; and (3) strategies and time schedules to achieve water quality objectives.

California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the CDFW has jurisdiction over State-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in *take* of individuals (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of *take* under the California Fish and Game Code. The CDFW, however, has interpreted *take* to include habitat removal "if it is the proximate cause of death to the species".[25]

California Environmental Quality Act

CEQA Guidelines Section 15380 defines endangered, rare, or threatened species as follows:

(a) "Species" as used in this section means a species or subspecies of animal or plant or a variety of plant.

(b) A species of animal or plant is:

> (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or
>
> (2) "Rare" when either:
>
> > (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
> >
> > (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

[24] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

[25] California Department of Transportation. 2012. Standard Environmental Reference, Volume 3, Chapter 4, Section 10.1. Available: https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-3-biological-resources.

(c) A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in:

(1) Sections 670.2 or 670.5, Title 14, California Code of Regulations; or

(2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d) A species not included in any listing identified in subdivision (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subdivision (b).

(e) This definition shall not include any species of the Class Insecta which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by:

(1) The Director of Food and Agriculture with regard to economic pests; or

(2) The Director of Health Services with regard to health risks.

California Fish and Game Code

Ephemeral and intermittent streams, rivers, creeks, dry washes, sloughs, blue line streams on USGS maps, and watercourses with subsurface flows fall under CDFW jurisdiction. Canals, aqueducts, irrigation ditches, and other means of water conveyance may also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. A *stream* is defined in Title 14, California Code of Regulations Section 1.72, as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation." Using this definition, CDFW extends its jurisdiction to encompass riparian habitats that function as a part of a watercourse. California Fish and Game Code Section 2786 defines *riparian habitat* as "lands which contain habitat which grows close to and which depends upon soil moisture from a nearby freshwater source." The lateral extent of a stream and associated riparian habitat that would fall under the jurisdiction of CDFW can be measured in several ways, depending on the particular situation and the type of fish or wildlife at risk. At minimum, CDFW would claim jurisdiction over a stream's bed and bank. Where riparian habitat is present, the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats.

Pursuant to California Fish and Game Code Section 1602, CDFW regulates any project proposed by any person that will "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." California Fish and Game Code Section 1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions necessary to protect fish and wildlife, and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

Certain sections of the California Fish and Game Code describe regulations pertaining to protection of certain wildlife species. For example, Code Section 2000 prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code.

The California Fish and Game Code Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered *take* by the CDFW. Raptors (e.g., eagles, hawks, and owls) and their nests are specifically protected in California under Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Bats and other non-game mammals are protected by California Fish and Game Code Section 4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in mortality of non-game mammals (e.g., destruction of an occupied nonbreeding bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered take by the CDFW.

State Water Resources Control Board Stormwater Regulation

Construction projects in California causing land disturbances that are equal to 1 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2022-0057-DWQ). Prior to the start of construction/demolition, a Notice of Intent must be filed with the SWRCB describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project and it must include the use of best management practices (BMPs) to protect water quality until the project site is stabilized.

Standard permit conditions under the Construction General Permit require that the applicant utilize various measures including: on-site sediment control BMPs, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors. Additionally, the Construction General Permit does not extend coverage to projects if stormwater discharge-related activities are likely to jeopardize the continued existence, or result in take, of any federally listed endangered or threatened species.

Small municipalities and "non-traditional" municipal separate storm sewer systems (MS4) operate under the Statewide Phase II Small MS4 Program. Non-traditional MS4s are designated by the SWRCB or RWQCB and include systems located within or that discharge to a permitted MS4 and pose significant water quality threats. These are storm water systems that serve facilities such as ports, public campuses, military bases, State and federal prison and hospital complexes, and fairgrounds. Non-traditional MS4s are subject to some different requirements from cities and counties because most potential sources of illicit discharges and storm water pollution are associated with activities under their direct operational control, but may also lack legal authority to employ enforcement mechanisms different from the city/county government to implement their stormwater program. The Port is a designated non-traditional MS4 and operates under the Phase II Small MS4 permit which was adopted in July 2013 (Order Number 2013-0001-DWQ, NPDES

Permit No. CAS000004).[26] The permit is currently in the process of being reissued. An "Informal Draft Small MS4 Permit for Public Comment" was released by the SWRCB in July 2024.[27] Order Number 2013-0001-DWQ identifies that non-traditional MS4s have the same responsibilities as Traditional MS4s to prevent or reduce storm water pollution generated by their own operations, to train employees about pollution prevention/good housekeeping practices, and to identify appropriate measures to prevent or reduce the amount of storm water generated by their operations. They also need to conduct quantitative evaluation of their stormwater program and submit annual reports.

In many Bay Area counties, including San Mateo County, projects must also comply with the California RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. Order Number R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008). This permit requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of water coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of components such as pervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors.

The McAteer-Petris Act

The McAteer-Petris Act, enacted on September 17, 1965, serves as a legal provision under California state law to preserve San Francisco Bay from indiscriminate filling. The act initially established the BCDC as a temporary State agency charged with preparing a plan for the long-term use of the San Francisco Bay. In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent regulatory agency to incorporate the policies of the Bay Plan. BCDC's Bay jurisdiction is defined by the mean high water (MHW) elevation and includes a 100-foot-wide band along the shoreline of the San Francisco Bay. The *shoreline* is defined as all areas that are subject to tidal action from the south end of the San Francisco Bay to the Golden Gate (Point Bonita–Point Lobos), and to the Sacramento River line (a line between Stake Point and Simmons Point, extended northeasterly to the mouth of Marshall Cut). The BCDC has jurisdiction over all sloughs (specifically marshlands lying between mean high tide and up to 5 feet above mean sea level where marsh vegetation is present); tidelands (lands between mean high tide and mean low tide); and submerged lands (land lying below mean low tide) in this region. The McAteer-Petris Act also requires that maximum feasible public access be included as part of each project to be approved by the BCDC.

3.3.3.1.3 Regional/Local

City of Redwood City Tree Protection Policies

Redwood City has a street tree ordinance and a street tree preservation ordinance. The Redwood City Street Tree Ordinance (Ordinance No. 1010, Section 1) requires the issuance of a permit for the planting, pruning, or removal of trees in the public right-of-way. The Redwood City Tree Preservation Ordinance

[26] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[27] California State Water Resources Control Board. July 2024. Informal Draft Small MS4 Permit for Public Comment - Order WQ 20XX-00XX, NPDES No. CAS000004 National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/small_ms4_reissuance.html.

(Ordinance No. 1536, Section 1, 6-26-72) requires the issuance of a permit from the City Parks and Recreation Director to allow the removal of trees with a circumference of 38-inches or more on private property. Issuance of a tree removal permit is based on factors including the condition of the trees, necessity to remove the trees, topography of the land and impacts of tree removal on erosion, number of trees in the neighborhood, and good forestry practices. Section 35.2 of the Redwood City Municipal Code states that the Parks and Recreation Commission may declare any tree, regardless of size, to be a heritage tree if said tree is healthy and has adapted well to the climatic conditions of the area, if said tree is visually accessible from a public right-of-way, and if the Commission finds that at least one of the following conditions exist: that said tree (1) has historical significance; (2) is indigenous to the area; or (3) is one of a group of tree and that each is dependent on the other tree for survival. Section 35.3 states that it is unlawful for any person to cut, move, or remove or cause to be cut, moved or removed any tree, unless such person first obtains a permit from the Parks and Recreation Director to do so in a manner prescribed by him for such removal.

Redwood City Municipal Code

The Redwood City Municipal Code, Chapter 29 – Streets, Sidewalks and Work In or Use Of City Right-of-Way, Article VI – Planting and Care Of Trees and Other Vegetation on Public Streets (Ordinance 1010)[28] sets forth a comprehensive plan for the planting and maintenance of trees which are located within or which overhang public streets and establishes rules and regulations relating to the planting, care, and maintenance of such trees. Trees in the public street can be cut, trimmed, pruned, sprayed, braced, planted, moved, removed, or replaced only by the Park Superintendent or their authorized agent or deputy unless a written permit is obtained.

Redwood City Zoning Ordinance (Zoning Code)

Redwood City Zoning Code Article 30.18 – Improvements for Parking and Loading Facilities[29] requires parking lots to be improved with landscaping, including the provision of one tree per five parking spaces.

Redwood City Engineering Standards

The City's adopted Engineering Standards[30] consist of three volumes: Volume I - Standard Technical Specifications; Volume II – Standard Details; and Volume III – Design Criteria. Section Z of Volume II includes design standards for tree planting, landscaping, and irrigation.

Volume III addresses design criteria for features such as street design, storm drain design, and landscaping and irrigation. Part I of Volume III requires that street trees and landscaping in common areas and frontage be designed and built to the satisfaction of the City.

[28] City of Redwood City. Municipal Code, Chapter 29 – Streets, Sidewalks and Work In or Use Of City Right-of-Way, Article VI – Planting and Care Of Trees and Other Vegetation on Public Streets. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH29STSIWOUSRI-W_ARTVIPLCATROTVEPUST.

[29] City of Redwood City. Zoning Ordinance, Article 30.18 – Improvements for Parking and Loading Facilities. Available: https://library.municode.com/ca/redwood_city/codes/zoning_code?nodeId=ART30OREPALO_30.18IMPALOFA.

[30] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

Redwood City General Plan

The Redwood City General Plan[31] provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City.

The General Plan includes the following implementation program related to lighting:

Program BE-15: Title 24 Lighting Zone.

- Require all new development and redevelopment within Redwood City to be in compliance with Title 24 Lighting Zone (LZ-3) requirements. Encourage the use of low mounted, downward casting exterior lighting for all new development in the city, so as to reduce light trespass onto adjacent properties. Further, require new developments to submit lighting and photometric site plans for City review and approval prior to the issuance of individual building permits.

3.3.3.2 Environmental Setting

3.3.3.2.1 General Project Area Description

The project area is in the City of Redwood City, along Redwood Creek and Westpoint Slough. The approximately 14 acres of the landside project area have been heavily modified since at least 1924[32] and have been used for industrial purposes, including gravel and sand stockpiling. Surrounding lands include tidal salt marshes on Bair and Greco Islands, part of the Don Edwards San Francisco Bay National Wildlife Refuge.

The project site, owned by the Port of Redwood City, is leased to CEMEX, which is vacating and removing buildings, equipment, and stockpiles. Pursuant to the lease, CEMEX is filling a narrow muted tidal channel connected to Westpoint Slough and installing a drainage pipe to convey stormwater. The shoreline is armored with concrete and riprap, and the abandoned Shell Unloading Wharf (constructed in 1962) extends into Westpoint Slough. As noted in Appendix C, the site is generally flat and near sea level, with soils mapped as Urban land–Orthents, reclaimed complex soils typical of San Francisco Bay shoreline fill.

As described in **Section 3.3.3.1.2**, BCDC's Bay jurisdiction is defined by the MHW elevation and includes a 100-foot-wide band along the shoreline. At the project site, along the majority of the Bay shoreline where the land is bordered by Redwood Creek to the west and Westpoint Slough to the north and vegetated marsh is absent, the MHW elevation is 6.51 feet North American Vertical Datum (NAVD).[33] Along the tidal channel at the northeastern side of the project site where narrow bands of tidal salt marsh are present, and within the tidal wetland at the northwest corner of the project area, the upper limit of BCDC's Bay jurisdiction is defined as the mean sea level (MSL) elevation plus 5 feet (8.35 feet NAVD at the project area), or upper extent of marsh vegetation, whichever is lower. **Figure 3.3-1** shows the BCDC jurisdiction, including the 100-foot Shoreline Band area extending landward of the extent of Bay jurisdiction.

[31] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[32] U.S. Geological Survey. 1993. Geologic map of the Palo Alto and part of the Redwood Point 7-1/2' Quadrangles, San Mateo and Santa Clara Counties, California. U.S. Department of the Interior. Available: https://pubs.usgs.gov/publication/i2371.

[33] AECOM. 2016. San Francisco Bay Tidal Datums and Extreme Tides Study. Available: https://www.adaptingtorisingtides.org/wp-content/uploads/2016/05/20160429.SFBay_Tidal-Datums_and_Extreme_Tides_Study.FINAL_.pdf.



Source: H.T. Harvey & Associates, 2026

Figure 3.3-1

Port of Redwood City Ferry Terminal Project

BCDC JURISDICTION

3.3.3.2.2 Land Cover/Habitat Types

Of the 14-acre landside project area, approximately 11.86 acres are developed, with the remaining area comprising tidal salt marsh (0.12 acre), open water/tidal aquatic (1.15 acres), ruderal (1.54 acres), and muted tidal marsh (0.03 acre) habitats. These habitat types are depicted on **Figure 3.3-2** and are described below. A list of plant species observed during the reconnaissance survey and representative photos of the habitat types are provided at the end of the Biological Resources Report (Appendix C) of this Draft EIR.

3.3.3.2.2.1 Developed

Vegetation. Developed land includes the majority of the 9.2 acre project site that was previously used for stockpiling of materials and is now a cleared graded site, the maintenance building to be relocated, paved areas (roads, driveways, and surface parking), railroad tracks, and ornamental landscaping. Planted vegetation includes ornamental trees, shrubs, and groundcovers typical of commercial properties.

Wildlife. Common species associated with developed areas and tolerant of periodic human disturbance that may occur in the project area include the western fence lizard (*Sceloporus occidentalis*), European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), black rat (*Rattus rattu*s), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*). Common native birds such as American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), and Bewick's wren (*Thryomanes bewickii*) were observed in the project area. Additionally, ruby-crowned kinglet (*Corthylio calendula*), yellow-rumped warbler (*Setophaga coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), and golden-crowned sparrow (*Zonotrichia atricapilla*) occur in landscape vegetation during the nonbreeding season.

The Shell Unloading Wharf supports about 150 nesting pairs of cliff swallow (*Petrochelidon pyrrhonota*), and may at times also support roosting seabirds such as California gull (*Larus californicus*), western gull (*Larus occidentalis*), and brown pelican (*Pelecanus occidentalis*).

Marginally suitable roosting habitat for crevice-roosting bats such as the Yuma myotis (*Myotis yumanensis*) and Mexican free-tailed bat (*Tadarida brasiliensis*) is present underneath loose bark on Fremont cottonwood (*Populus fremontii*) and Pinus spp. trees in the project area. Likewise, several trees provide low-quality habitat for the foliage-roosting hoary bat (*Lasiurus cinereus*) and western red bat (*Lasiurus blossevillii*). No cavities that could support roosting bats such as the pallid bat (*Antrozous pallidus*) were observed in trees within the project area. The maintenance building within the project area that would be relocated does not contain suitable roosting habitat on its exterior, and due to frequent human disturbance, would not support roosting bats in their interior. Due to the absence of high-quality habitat and lack of observations of these species at the project site or vicinity, the project area would not support maternity roosts or large bat roosts. Birds such as the black phoebe (*Sayornis nigricans*), barn swallow (*Hirundo rustica*), cliff swallow, house finch (*Haemorhous mexicanus*), and mourning dove (*Zenaida macroura*) could potentially nest on buildings in the project area.



Source: H.T. Harvey & Associates, 2026

Figure 3.3-2

HABITATS MAP

3.3.3.2.2.2 Ruderal

Vegetation. Along the Bay and the tidal salt marsh, banks transitioning between the developed upland portions of the project area and the wetland/aquatic habitats downslope are dominated by ruderal vegetation. This vegetation includes a variety of upland non-native grasses and forbs such as fennel (*Foeniculum vulgare*), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), and artichoke thistle (*Cynara cardunculus*).

Wildlife. Due to the very limited extent of ruderal habitat in the project area, no distinctive animal communities are associated with this habitat type. Thus, wildlife use of ruderal areas is limited but may include foraging or nesting by Alameda song sparrow (*Melospiza melodia pusillula*) and Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*) where adjacent to tidal habitats.

3.3.3.2.2.3 Muted Tidal Marsh

Vegetation. The biological survey identified a narrow tidal channel in the project site (approximately 20 feet wide, 300 feet long) that supports pickleweed (*Salicornia pacifica*) and alkali bulrush (*Bolboschoenus maritimus*) near the water, grading to fennel and black mustard upslope. A tide gate with a one-way flap that is approximately 80 feet from the entrance to Westpoint Slough prevents tidal exchange within the muted tidal marsh. This tidal channel feature south of the tide gate is being filled and replaced by a drainage pipe under the CEMEX lease, so it would be removed prior to implementation of the proposed project.

Wildlife. Due to the very limited extent of this habitat and the disturbed nature of the ditch in which it occurs, wildlife using the muted tidal marsh in the project area are similar to those using adjacent ruderal habitats.

3.3.3.2.2.4 Tidal Salt Marsh

Vegetation. A small salt marsh (0.12 acre) occurs in the northwest corner of the project site near the Shell Unloading Wharf and north of the tide gate. Dominant species include pickleweed (*Salicornia pacifica*), alkali heath (*Frankenia salina*), salt grass (*Distichlis spicata*), marsh jaumea (*Jaumea carnosa*), and Russian thistle (*Salsola soda*).

Wildlife. Tidal salt marsh habitat quality in the project area is low and unsuitable for California Ridgway's rail (*Rallus obsoletus obsoletus*) or salt marsh harvest mouse (*Reithrodontomys raviventris*). Common foragers such as house finch (*Haemorhous mexicanus*), American crow, raccoon, and striped skunk may occur. In contrast, nearby Bair and Greco Islands support robust populations of tidal marsh species, including California Ridgway's rail, salt marsh harvest mouse, salt marsh wandering shrew (*Sorex vagrans halicoetes*), California black rail (*Laterallus jamaicensis*) and western snowy plovers (*Charadrius nivosus nivosus*).

3.3.3.2.2.5 Open Water/Tidal Aquatic

Vegetation. Open water/tidal aquatic habitat is present in Redwood Creek up to the top of bank/high tide line and Westpoint Slough up to the high tide line. Riprap located on the banks of the channels is considered part of the tidal channel/aquatic habitat. The riprap areas were devoid of vegetation at the time of the June 20, 2024 site visit. The area north of the tide gate is fully tidal.

Wildlife. Redwood Creek, Westpoint Slough, and the open waters of San Francisco Bay immediately north and west of the project area and along the proposed ferry routes support a variety of fish, waterbirds, and marine mammals.

Fish species include bat ray (*Myliobatis californica*), Pacific herring (*Clupea pallasii*), threespine stickleback (G*asterosteus aculeatus*), starry flounder (*Platichthys stellatus*), northern anchovy (*Engraulis mordax*), and topsmelt (*Atherinops affinis*). No high-quality breeding or nursery habitat for any fish is present in the project area; however, both Bair and Greco Island contain high quality fish breeding and nursery habitat. Redwood Creek, Westpoint Slough, and the proposed ferry route to San Francisco do not contain any known patches of eelgrass. The proposed ferry route to Oakland contains a small amount of mapped eelgrass along the edge of the Oakland Estuary.

Birds that forage in nearby waters adjacent to the project area and along the proposed ferry routes include surf scoter (*Melanitta perspicillata*), lesser scaup (*Aythya affinis*), greater scaup (*Aythya marila*), western gull, Caspian tern (*Hydroprogne caspia*), Forster's tern (*Sterna forsteri*), brown pelican, bufflehead (*Bucephala albeola*), green-winged teal (*Anas crecca*), mallard (*Anas platyrhynchos*), western grebe (*Aechmophorus occidentalis*), and Clark's grebe (*Aechmophorus clarkii*). Waterbird abundance and diversity in the project area is more limited, though Canada geese (*Branta canadensis*), American coots (*Fulica americana*), and mallards may forage along the project area in Redwood Creek, Westpoint Slough, and the tidal channel.

The intertidal areas along the Bay shoreline, which include a moderate sized mudflat at the confluence of Redwood Creek and Westpoint Slough and a much smaller mudflat between the abandoned cement Shell Unloading Wharf and tidal channel, provide foraging habitat for a variety of gulls and shorebirds, including the western gull, California gull, western sandpiper (*Calidris mauri*), least sandpiper (*Calidris minutilla*), dunlin (*Calidris alpina*), willet (*Tringa semipalmata*), greater yellowlegs (*Tringa melanoleuca*), marbled godwit (*Limosa fedoa*), and black-bellied plover (*Pluvialis squatarola*). Shorebirds are most abundant during fall and spring migration and during the winter non-breeding season.

Pacific harbor seals (*Phoca vitulina richardsi*) and California sea lions (*Zalophus californianus*), which are protected under the MMPA, are known to occur in open bay waters in the vicinity of the project area and proposed ferry routes. Two of six recognized Pacific harbor seal haul-out and pupping sites in the South San Francisco Bay are located at Corkscrew Slough and Outer Bair Island, approximately 0.8 and 1.4 miles, respectively, north of the project area, and harbor seals must swim through either Redwood Creek or Steinberger Slough, located on the north side of Bair Island, to reach Corkscrew Slough. Pacific harbor seals may also occasionally forage in Westpoint Slough adjacent to the project area. California sea lions do not breed in San Francisco Bay, but occasionally occur as common residents of the Bay year-round. Therefore, Pacific harbor seals are expected to occur in Redwood Creek and Westpoint Slough adjacent to the project area frequently throughout the year, while California sea lions are expected to occur in the project vicinity only as occasional visitors to Redwood Creek and Westpoint Slough.

3.3.3.2.3 Wildlife Movement

Due to the density of development in the project region and the lack of continuous, well-vegetated pathways through the nearby urban areas, there are no well-defined movement corridors for animals within or through the project area. Wildlife species may move through the area using cover and refugia as they find them available, and mammals and reptiles may move along the bayshore. However,

connectivity along Redwood Creek and Westpoint Slough is interrupted by the US 101 freeway and other roads and culverted areas.

Migratory birds, including waterbirds associated with the Bay and terrestrial species, migrate along the edge of San Francisco Bay. For example, nocturnal migrant birds that find themselves over the Bay in the morning will seek roosting and foraging areas along the edge of the Bay. As a result, numbers of migrant birds in the project area, or at least moving through/past the project area, would be higher than expected based on the low quality of habitat currently present on the predominantly developed site.

As described in Appendix C, the open water of the project footprint, including Redwood Creek, Westpoint Slough, and the San Francisco Bay, support the movement of numerous common fish species. No special-status fish species breed, or occur in large numbers, in Redwood Creek or Westpoint Slough. Anadromous fish species may occur in San Francisco Bay along the ferry route, but are not confined to the small portion of the Bay within established vessel lanes. Harbor seals regularly occur in Redwood Creek and Westpoint Slough as they transit between their haul out site on Corkscrew Slough and the San Francisco Bay. Both fish and marine mammals may also reach the open water of the San Francisco Bay via Steinberger Slough.

In summary, the project site and vicinity does not support movement by non-flying wildlife such as mammals and reptiles due to the lack of food and well vegetated pathways, and it does not contain any high-quality corridors allowing dispersal of such animals. The aquatic portions of the project footprint support the movement of fish and marine mammals, but are not heavily used corridors for movement and dispersal. However, migratory birds are expected to occur on, or at least fly through/past, the project area in moderate abundance.

The open bay along the proposed ferry routes is heavily used by a wide range of migratory waterbirds, especially during the winter months when wintering migratory waterfowl are present. The open Central and South Bay collectively support roosting and foraging rafts of tens of thousands of diving ducks, such as bufflehead, ruddy duck (*Oxyura jamaicensis*), scaup spp., and scoter spp.; thousands of dabbling ducks such as northern shoveler (*Spatula clypeata*), American wigeon (*Mareca americana*), northern pintail (*Anas acuta*), and gadwall (*Mareca strepera*); and hundreds to thousands of western grebe (*Aechmophorus occidentalis*) and Clark's grebe (*Aechmophorus clarkii*). In addition to these species, hundreds to thousands of brown pelican and double-crested cormorant (*Nannopterum auritum*) hunt for fish in these waters. Waterbirds along a portion of the proposed ferry routes may already be habituated to disturbance from currently operating ferries. Waterbirds may also be somewhat habituated to disturbance from ships and barges entering and exiting the Port of Redwood City that may travel a similar route as the proposed project. Between 2018 and 2024, an annual average of 101±21 vessels called on the Port of Redwood City, ranging from 10 vessels per month to slightly less than 7 per month.[34] In addition, personal vessels operating out of the Port of Redwood City Municipal Marina, Westpoint Harbor, Coyote Point Marina, and Oyster Point Marina, including both motorized boats and non-motorized boats and kayaks, may occur along the proposed ferry routes, and thus waterbirds may also be somewhat habituated to this disturbance.

[34] Port of Redwood City. 2025. Tonnage & Vessel Reports. Available: https://www.redwoodcityport.com/ tonnagevesselreports. Accessed through May 2025.

3.3.3.2.4 Special-Status Plant Species

No special-status plant species are known or expected to occur in the project area. Due to the presence of suitable habitat, edaphic (soil) requirements, and elevation range, Point Reyes bird's beak (*Chloropyron maritimum* ssp. *palustre*, listed by the CNPS as California Rare Plant Rank [CRPR] 1B.2), and California seablite (*Suaeda californica*, listed by the CNPS as CRPR 1B.1 and federally listed as endangered) could possibly occur in tidal marshes at Bair Island and Greco Island along the proposed ferry routes. However, given the lack of recent occurrences in the project vicinity, these species' potential for occurrence in those areas is very low.

3.3.3.2.5 Special-Status Animal Species

A number of special-status animal species can occasionally occur on or immediately adjacent to the project area as nonbreeding foragers (i.e., they do not nest in the project area). These are the burrowing owl (*Athene cunicularia*, State candidate for listing and California Species of Special Concern [CSSC]), California least tern (*Sternula antillarum browni*, federally and State listed as endangered/State fully protected species), tricolored blackbird (*Agelaius tricolor*, State listed as threatened and CSSC), Vaux's swift (*Chaetura vauxi*, CSSC [nesting]), olive-sided flycatcher (*Contopus cooperi*, CSSC [nesting]), yellow warbler (*Setophaga petechia*, CSSC [nesting]), and western red bat (*Lasiurus blossevillii*, CSSC). None of these species are expected to occur regularly or in large numbers in the project area, due to lack of suitable nesting habitat within or immediately adjacent to the project area.

Several additional species are found year-round within tidal marshes adjacent to the proposed ferry routes along Redwood Creek, including the salt marsh harvest mouse (*Reithrodontomys raviventris*, federally and State listed as endangered/ State fully protected species), salt marsh wandering shrew (*Sorex vagrans halicoetes*, CSSC), California Ridgway's rail (*Rallus obsoletus obsoletus*, federally and State listed as endangered/ State fully protected species), California black rail (*Laterallus jamaicensis coturniculus*, State listed as threatened and State fully protected species), San Francisco common yellowthroat (*Geothlypis trichas* sinuosa, CSSC), Alameda song sparrow (*Melospiza melodia pusillula*, CSSC), and Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*, CSSC).

Although the California sea lion (*Zalophus californianus*) and Pacific harbor seal (*Phoca vitulina richardsi*), both protected under the MMPA, occur in Redwood Creek and Westpoint Slough immediately adjacent to the project area and in the Bay along the proposed ferry routes, these species do not occur in the project area itself or regularly haul out onto the shoreline adjacent to the project area.

Redwood Creek, Westpoint Slough, and the open waters of San Francisco Bay in the proposed ferry routes immediately adjacent to the project area provide potential foraging habitat for the Central California Coast steelhead (*Oncorhynchus mykiss*, federally listed as threatened), white sturgeon (*Acipenser transmontanus*, State candidate for listing and CSSC), southern green sturgeon (*Acipenser medirostris*, federally listed as threatened and CSSC), longfin smelt (*Spirinchus thaleichthys*, federally listed as endangered and State listed as threatened), Pacific lamprey (*Entosphenus tridentatus*, CSSC), and Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*, CSSC). Pacific herring (*Clupea pallasii*, considered endangered, rare, or threatened under Section 15380 of the CEQA Guidelines) regularly spawn approximately 8 miles northwest of the project area at Coyote Point.

Bair Island provides suitable herring spawning habitat, and spawning has been reported in the vicinity of Redwood City, however spawning does not regularly occur in the area. The abandoned cement Shell

Unloading Wharf, riprap, and rock found along Redwood Creek and Westpoint Slough immediately adjacent to the project area provide a small amount of suitable spawning habitat. Although unlikely, this species could possibly spawn in small numbers on the abandoned wharf, rock, and riprap found along Redwood Creek and Westpoint Slough. Between 2012- 2020, the closest that this species was documented to breed was at Little Coyote Point, approximately 5.2 miles northwest of the project area.[35]

The Olympia oyster (*Ostrea lurida*, considered endangered, rare, or threatened under Section 15380 of the CEQA Guidelines) occurs throughout the San Francisco Bay along rocky shorelines, including Redwood Creek, where there were two observations of one or two oysters in 2023. No oysters were observed during the June 20, 2024 site visit, although, the abandoned cement Shell Unloading Wharf along Westpoint Slough provides marginally suitable habitat for these species. Otherwise, the project area provides low quality habitat due to the lack of extensive or large rocks and other hard substrates. No oyster reef locations are known along the proposed ferry routes. Both observations of herring and Olympia oysters are very infrequent and limited to a small number of individuals.

The monarch butterfly (*Danaus Plexippus*, federal candidate for listing) is not known to breed or overwinter in the project area or in the nearby vicinity, but it could occasionally forage in the area and roost on the trees on-site during their fall and spring migration.

3.3.3.2.6 Sensitive Natural Communities and Habitats

3.3.3.2.6.1 Sensitive Natural Communities

The tidal salt marsh in the project area, along the tidal channel and in the northern wetland, is dominated by pickleweed, and saltgrass in various areas, and therefore represents northern coastal salt marsh, designated by the CDFW as a sensitive natural community (Appendix C). No other sensitive natural communities are in the project area.

3.3.3.2.6.2 Wetlands and Waters of the U.S./State

The June 20, 2024 site visit identified waters of the U.S. and waters of the State on and adjacent to the project area. Redwood Creek, Westpoint Slough, the tidal channel, narrow areas of tidal wetlands along these features, and the tidal salt marsh in the northern part of the project area are all considered waters of the U.S and waters of the State. Waters of the State may additionally extend landward to the tops of the banks of the tidal channel. The ruderal slope along the tidal channel and muted tidal marsh banks may be considered a "buffer" of waters of the State by the RWQCB. The bed and banks of Redwood Creek, and possibly also Westpoint Slough if it is considered the downstream reach of a stream that begins in nontidal areas, may also be regulated by the CDFW under Section 1602 of the California Fish and Game Code.

3.3.3.2.6.3 Essential Fish Habitat

The intertidal and subtidal habitats within and adjacent to the project area and proposed ferry routes are considered EFH by the NMFS. EFH is habitat that is essential to the long-term survival and health of a fishery and includes those habitats that support all life stages and all habitats that support breeding, spawning, feeding, and growth to maturity of a managed species. The San Francisco Bay has been designated EFH for three FMPs within the project vicinity: the Pacific Coast Groundfish FMP (various rockfish, soles, and sharks), Coastal Pelagic Species FMP (northern anchovy (*Engraulis mordax*), Pacific

[35] California Department of Fish and Wildlife (CDFW). 2023. Pacific Herring Spawning Shoreline – SF Bay – 2012-2020. Available: https://www.arcgis.com/apps/mapviewer/index.html?layers=3ea363054c154230acd09dfcada13d61. Accessed August 25, 2026.

sardine (*Sardinops sagax*), mackerel, squid), and Pacific Coast Salmon FMP (Chinook salmon (*Oncorhynchus tshawytscha*)).

In the project area, intertidal habitats along Redwood Creek, Westpoint Slough, and the tidal channel up to the elevation of mean higher high water are considered to be EFH. FMP-managed fish species forage along both Redwood Creek and Westpoint Slough, which provide nursery habitat in adjacent marshes, and may occasionally forage at the mouth of the tidal channel during high tide. However, due to the very narrow and shallow nature of the tidal channel mouth, FMP-managed fish are expected to make limited use of the tidal channel mouth.

3.3.4 Thresholds of Significance

The proposed project would result in significant impacts associated with biological resources if it would:

Impact 3.3-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impact 3.3-2 Have a substantial adverse effect on

- any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact 3.3-3 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact 3.3-4 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact 3.3-5 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

3.3.5 Project Impacts

Figure 3.3-3 identifies the habitats in the project area and depicts the areas that would be impacted by project activities. Direct impacts to habitats in the project area (acreage of permanent and temporary impacts) are summarized in **Table 3.3-1**. The direct impacts to biotic habitat, as well as associated indirect impacts to biological resources, are discussed in the sections below.



Source: H.T. Harvey & Associates, 2026

Figure 3.3-3

Table 3.3-1 Impacts to Biotic Habitats

Biotic Habitat	Permanent Impacts (acres)	Temporary Impacts (acres)
Developed	11.860	0
Ruderal	1.540	0
Open Water/Tidal Aquatic	0.180	0.390
Tidal Salt Marsh[1]	0.001	0.099
Muted Tidal Marsh[2]	0.030	0
Total Impacts	**13.611**	**0.489**

Source: Appendix C, Biological Resources Report, of this Draft EIR.
Notes:
[1] Temporary and permanent impacts on tidal salt march total 0.10 acre. Mitigation for impacts to tidal salt marsh that would be impacted by the ferry terminal project has already been provided by the Pacific Shores Center Project (see **Section 3.3.5.2.1**).
[2] The area mapped as muted tidal marsh will be filled/piped by others prior to commencement of the ferry terminal project.

3.3.5.1 Impact 3.3-1

Impact 3.3.1: Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

3.3.5.1.1 Construction

3.3.5.1.1.1 Ferry Terminal

Construction activities that would occur within aquatic habitats include installation of piles and a float, and dredging within Redwood Creek. These activities would result in temporary and permanent impacts to tidal salt marsh and open water/tidal aquatic habitat.

See **Figure 3.3-3** which shows the area of temporary (short-term) impacts and permanent impacts associated with the proposed project.[36] Construction-related impacts of the ferry terminal on candidate, sensitive, or special-status species are discussed below. Permanent impacts are discussed in **Section 3.3.5.1.2**.

Impacts on Special-Status Plant Species

No special-status plant species are known or expected to occur in the project area. California seablite and Point Reyes bird's beak occur on Bair Island and Greco Island. In-water construction of the ferry terminal, including dredging, would not impact special-status plant species in these locations. Thus, construction of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species; there would be no impact.

Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat

Redwood Creek, Westpoint Slough, and the open Bay provide high-quality habitat for fish, and there is the potential for special-status fish such as the longfin smelt, Central California Coast steelhead, Central Valley fall-run Chinook salmon, white sturgeon, southern green sturgeon, Pacific lamprey, and for a

[36] Temporary and permanent impacts associated with removal of the Shell Unloading Wharf shown in **Figure 3.3-3** would occur as part of the visitor-serving uses.

number of FMP-managed fish species to occur within the in-water work areas when construction occurs. Installation of pilings and a float (approximately 20 days), and dredging from the Redwood Creek Channel to the ferry dock (approximately 11 days) would result in injury to special-status fish due to in-water vibration; a reduction in water quality in Redwood Creek, Westpoint Slough, and the open Bay due to mobilization of sediments or contaminants (e.g., leaks from construction equipment) during construction; and loss of a limited area of fish habitat due to the ferry terminal pier piles.

During construction, the project would comply with the Construction General Permit (see **Section 3.3.3.1.2**), which includes preparation of a SWPPP that identifies construction BMPs to protect water quality, that include preventing discharges of pollutants into surface waters and controlling erosion, sedimentation, and runoff such as through use of silt fencing or other types of sediment controls, dust control, and temporary soil stabilization. These mandatory construction BMPs would be reviewed and coordinated with the RWQCB, as necessary, for implementation during work and would include standard requirements, such as, but not limited to: containing temporary stockpiling of excavated or imported material to approved construction staging areas, staging equipment and parking vehicles on established access roads and flat surfaces; fueling and maintaining vehicles away from Redwood Creek, Westpoint Slough, and the tidal channel; and use of bubble curtains or other comparable method to reduce underwater noise and dispersion and resuspension of sediments. Regardless, the proposed project's in-water construction would have a substantial adverse effect, through the potential for injury, mortality, or impairment of fish health, on special species fish species.

Benthic macroinvertebrates and other marine organisms that are prey for fish could be killed or their abundance reduced when construction-related dredging occurs and fill occurs by pile installation. However, the areas to be dredged or filled are very limited relative to the amount of available prey in the surrounding tidal waters. Thus, the loss of aquatic prey species because of in-water work activities and fill would not have a significant impact on special-status fish. Likewise, the loss of critical habitat and EFH that would occur due to dredging and pile installation represents a minute fraction of available habitat in the Bay. In this context, the loss of fish habitat would not be a substantial adverse effect, either directly or through habitat modifications, on special-status fish species. Both Pacific herring and Olympia oyster are known to occasionally occur in the project vicinity, although observations of either species are very infrequent and limited to a small number of individuals as discussed in **Section 3.3.3.2.5** and Appendix C. In the South Bay, Pacific herring spawning habitat is primarily man-made structures such as pilings and riprap, and Olympia oysters are found almost exclusively on pilings and riprap in the southern part of their range, including in the South Bay. The proposed project would install 0.16 acre of pilings in the water to support the ferry float and would provide suitable habitat for herring spawning and oyster recruitment. Thus, impacts on Pacific herring and Olympia oysters would be less than significant.

Because construction of the ferry terminal would result in the potential for injury, mortality, or impairment of fish health during in-water construction, there would be a substantial adverse effect, either directly or through habitat modifications, on special-status fish and fish managed under FMPs; the impact would be significant.

Impacts on Special-Status Marsh-Breeding Birds and Mammals

Several special-status species are known to occur and breed in salt marshes or on beaches on Bair Island and Greco Island and may occasionally occur within the project footprint as nonbreeding migrants,

transients, or foragers. These are the California Ridgway's rail, California black rail, western snowy plover, San Francisco common yellowthroat, Alameda song sparrow, Bryant's savannah sparrow, northern harrier, white-tailed kite, salt marsh harvest mouse, and salt marsh wandering shrew.

Project activities would result in some loss or disturbance of tidal salt marsh foraging habitats and would disturb foraging or roosting individuals of these species. Construction activities would result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during project construction) but would not result in the loss of individuals, as individuals of these species would be able to move away from any construction areas or equipment before they could be injured or killed. Further, the project area does not provide critical foraging habitat used regularly or by large numbers of individuals of any of these species due to the limited extent and quality of tidal salt marsh in the project area.

The USFWS typically recommends buffers of at least 700 feet, or at least 200 feet across a feature such as a major slough, between construction activity and California Ridgway's rail breeding habitat. Most project construction would occur well over 700 feet from tidal marsh where California Ridgway's rail breed. Although pile driving in Redwood Creek would occur over 1,200 feet from the nearest suitable habitat, the noise and vibration created by this activity could cause disturbance to breeding rails. However, rails in marshes along Redwood Creek are likely already habituated to boat traffic and industrial activities occurring at the Port that generate elevated noise and vibration. As a result of this habituation and the distance between vibration and noise sources and marshes with suitable habitat, construction of the ferry terminal would have very little impact on these species' regionally available foraging habitat and no substantial adverse impact on regional populations of these species.

Nonetheless, because of the relatively low regional populations of these special-status marsh-breeding species and the potential for injury or mortality, or nest/habitat abandonment, as a result of use of heavy equipment and increased human disturbance during project construction, there would be a substantial adverse effect, either directly or through habitat modifications, on these species; the impact would be significant.

Impacts on Nonbreeding Special-Status Birds

Several special-status bird species may occur within the project area as nonbreeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers within or near the project area. These are the California least tern, short-eared owl, burrowing owl, olive-sided flycatcher, tricolored blackbird, Vaux's swift, and yellow warbler.

Construction activities would result in some loss or disturbance of open water/tidal aquatic, tidal salt marsh, ruderal, and developed habitats and could disturb foraging or roosting individuals of these species. Construction activities would result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during project construction) but would not result in the loss of individuals, as individuals of these species would be able to move away from any construction areas or equipment before they could be injured or killed. The project area provides a small amount of foraging habitat for all of these species aside from the short-eared owl; however, these areas do not provide critical foraging habitat used regularly or by large numbers of individuals of any of these species. Construction of the ferry terminal would not have a

substantial adverse effect, either directly or through habitat modifications, on nonbreeding special-status birds; the impact would be less than significant.

Impacts on Monarch Butterfly

Monarch butterflies are not known to form roost aggregations along the San Francisco Bay shoreline in San Mateo County, and there is no expectation that such roosts will form in the future on or near the project area. Further, this species is not expected to breed in the project area due to the absence of milkweed (*Asclepias* spp), its larval host plant. Rather, monarch butterflies are expected to occur in the project area only as occasional visitors during migration. Construction of the ferry terminal would not result in injury or mortality of monarchs, as they would fly away as personnel or equipment approaches. Because the project area supports only low-quality and limited floral resources, construction of the ferry terminal would not result in the loss of any critical foraging habitat for migrant individuals. Construction of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on the regional populations of the monarch butterfly; the impact would be less than significant.

Impacts on Western Red Bats and Pallid Bats

Western red bats do not breed in San Mateo County but could possibly be present in the project area as migrant or winter residents. As described in Appendix C, during the breeding season, western red bats establish individual tree roosts and occasionally small maternity colonies in riparian habitats. Western red bats do not breed in San Mateo County. Although little is known about the habitat use of western red bats during the nonbreeding season, western red bats are uncommon, and although there is suitable roosting and foraging habitat for this species in the terminal project area, this species has not been documented to occur in the project vicinity. Further, because this species occurs primarily in riparian habitats, the western red bat is unlikely to occur in the few trees present in the project area. As a result, impacts to the western red bat would be less than significant.

The pallid bat is a crevice-roosting bat. Due to the pallid bat's large body size, trees in the project area do not provide crevices large enough to support individual roosting pallid bats. Therefore, removal of trees is not expected to disturb this species. At most, occasional dispersants from other areas could forage on the site nocturnally. Due to the intensity of urban development in the project area, there is no expectation that a maternity colony or large roost of pallid bats would occur in or near the project area, or that the species would forage regularly in the project area. Due to the absence of suitable roosting habitat on the project site, this species is highly unlikely to occur on the project site.

Therefore, due to lack of observations of these species on the project site or vicinity and the absence of high-quality habitat, construction of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on western red bats or pallid bats; the impact would be less than significant.

Impacts on California Sea Lions and Harbor Seals

Harbor seals do not occur in the landside components of the terminal project area, but nearby Bair Island supports two haul out and pupping sites located on Corkscrew Slough and the bayward edge of Outer Bair Island. Harbor seals occur frequently in Redwood Creek and Westpoint Slough immediately adjacent to (and possibly within) the project area as foragers. Although California sea lions regularly occur in the open

Bay and Oakland Estuary, they only very occasionally occur in Redwood Creek and Westpoint Slough. Individuals of either species would be disturbed by construction activity in the project area, which would affect foraging activity in Redwood Creek and Westpoint Slough and cause them to move farther from the project area. Increased disturbance in the form of elevated noise and vibration during construction would potentially cause harbor seals to abandon pupping and haul out sites on Corkscrew Slough and Outer Bair Island. However, as these sites are located over 1 mile from the project area, the intervening distance would attenuate project noise and vibration to a negligible level. Thus, construction of the ferry terminal would not have a substantial adverse effect on harbor seal and California sea lion pupping and haul out sites; the impact would be less than significant.

Due to the shipping activity at the Port of Redwood City and personal watercraft from nearby marinas, heavy industry along the shoreline, and other human activity in the project area, any seals or sea lions occurring in the Bay near the project area are sufficiently habituated to noise and human activity that occur out of water that there is a low probability of any adverse effect due to land-based construction activities. However, underwater sound waves produced by in-water construction activities, such as pile driving, have the potential to cause injury of seals or sea lions such as temporary or permanent hearing impairment, physical damage to tissues and organs, cavitation (formation and collapse of water bubbles) related injuries, and in some cases, may induce a fight-or-flight response of rapid resurfacing that may lead to decompression sickness and possibly mortality.[37] Dredging would increase water turbidity that would alter foraging patterns or reduce foraging success. Therefore, in-water construction activities for the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on harbor seals and California sea lions; the impact would be significant.

Impacts due to Increased Lighting

The use of lighting at night during the construction phase would result in impacts on animal species in the project area. Many animals, both special-status and common species, are sensitive to light cues, which influence their physiology and shape their behaviors, particularly during the breeding season.

Lighting associated with the construction of the ferry terminal would not be substantial and would be similar to or less than the adjacent uses (e.g., the Pacific Shores Center to the southeast and CEMEX marine terminal to the south), which contribute to the moderately high levels of ambient night lighting in the surrounding area. Light sources during construction would primarily include security lighting, which would be directed inward towards the project area. Construction activities associated with the ferry terminal and related facilities would typically be limited to daytime hours, between 7 AM and 7 PM, Monday through Friday. Nighttime construction activities, should they occur (e.g., to perform utility connections), would involve the use of on-site lighting. The lighting would include floodlights focused on the work area and not onto adjoining properties and would be limited in duration (short-term),[38] and thus would not create a new source of substantial light. Wildlife in adjacent aquatic and tidal marsh habitat are already conditioned to moderate levels of light at night due to existing lights present in the project area and adjacent areas. During construction, a similar amount of light spillover may occur. Therefore, the use of

[37] Erbe, C. 2012. Effects of Underwater Noise on Marine Mammals. Advances in experimental medicine and biology. 730. 17-22. 10.1007/978-1-4419-7311-5_3.

[38] Nighttime construction activities would occur only when needed throughout the construction period, such as to minimize traffic disruptions and disruptions in utility services. Such occurrences would not be typical and would not occur more than several nights in row.

lighting during construction of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be less than significant.

Conclusion

Based on the impacts discussed above, construction of the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

3.3.5.1.1.2 Visitor-Serving Uses

The only construction activities that would occur within aquatic habitats would be the removal of the abandoned cement Shell Unloading Wharf.

Impacts on Special-Status Plant Species

No special-status plant species are known or expected to occur in the project area. The project site contains ornamental plant species. California seablite and Point Reyes bird's beak could possibly occur on Bair Island and Greco Island. In-water removal of the Shell Unloading Wharf would have no impact on special-status plant species in these locations. Thus, construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species; there would be no impact.

Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat

Most construction activities for the visitor-serving uses would be limited to the landside portion of the project site and would not include in-water activities that would directly impact aquatic habitats. However, construction of the visitor-serving uses would include removal of the Shell Unloading Wharf on the northeastern edge of the project area. Removal of this wharf would take approximately 10 days. It would primarily be removed using landside-based equipment, but the removal activities would involve disturbance of water and tidal sediments and in-water vibration. As discussed in further detail for the construction of the ferry terminal, in-water activities work would have the potential to result in injury to special-status fish due to in-water vibration and a reduction of water quality in Westpoint Slough from mobilization of sediments or contaminants.

As discussed in **Section 3.3.3.2.5** and Appendix C, while it is unlikely for herring to spawn in the project area, the Shell Unloading Wharf, riprap, and rock found along Redwood Creek and Westpoint Slough immediately adjacent to the project area provide a small amount of suitable herring spawning habitat. Further, the Shell Unloading Wharf along Westpoint Slough provides marginally suitable habitat for the Olympia oyster, although no oysters were observed during the June 20, 2024 site visit. The construction of visitor-serving uses, specifically the removal of the Shell Unloading Wharf, would remove up to 0.25 acre of pilings and riprap. A portion of this removal would be offset by the 0.16 acre of ferry terminal pilings that would be installed prior to removal of the Shell Unloading Wharf (see **Section 3.3.5.1.1.1**), and which would provide suitable habitat for herring spawning and oyster recruitment. Furthermore, there are regional efforts to restore habitat to support both species, such as the State Coastal Conservancy San Francisco Bay Living Shoreline Program. An example of this work is the Near-shore Linkages Project, which

was initiated in 2012 and included experimental treatment plots to restore 0.24 acre of eelgrass beds and oyster reefs at a location owned by The Nature Conservancy in San Rafael and offshore from CDFW's Eden Landing Ecological Reserve in Hayward.[39] More recently, the Port of San Francisco completed construction of the Heron's Head Park Shoreline Resilience Project, which included oyster reef restoration.[40] Lastly, the Port of Redwood City will soon begin construction on its own Living Shoreline Pilot Project on Redwood Creek near the terminal project area. That project will include conversion of 180 linear feet of hardened shoreline to 0.015 acre of rocky intertidal habitat that will provide a substrate for Pacific herring to spawn and Olympia oysters to recruit.[41] Overall, viewed in context with local restoration efforts, habitat quality, and relative size of habitat impacted, the net loss of potential (and low-quality) habitat for Pacific herring and Olympia oyster is very low, representing a very small proportion of regionally available habitat for these species; thus, the impact would be less than significant.

As with construction of the ferry terminal, construction of the visitor-serving uses would comply with the SWPPP, which would require implementation of standard construction BMPs to control erosion, sedimentation, and runoff. Further, removal of the wharf would restore and enhance habitat to support fish. Removal of the wharf would allow more light to reach the water, creating more natural conditions that encourage fish to forage. The Shell Unloading Wharf removal would also allow for pickleweed and other northern coastal salt marsh vegetation to recolonize the shoreline, creating additional fish foraging habitat and cover from predators (Appendix C). However, because the removal of the Shell Unloading Wharf would result in the potential for injury, mortality, or impairment of fish health during in-water construction activities, there would be a substantial adverse effect, either directly or through habitat modifications, on special-status fish and fish managed under FMPs; the impact would be significant.

Impacts on Special-Status Marsh-Breeding Birds and Mammals

As discussed in more detail for the ferry terminal, construction activities for the visitor-serving uses would result in a temporary direct impact on special-status marsh-breeding birds and mammals through the alteration of foraging patterns. However, it would not result in the loss of individuals, as individuals of these species would be able to move away from any construction areas or equipment before they could be injured or killed. Further, the project area does not provide high-quality foraging habitat used regularly or by large numbers of individuals of any of these species due to the limited extent and quality of tidal salt marsh in the project area.

The buildings for the visitor-serving uses would be set back 100 feet from Bay waters and the majority of project construction would occur well over 700 feet from tidal marsh where California Ridgway's rail breed. However, the Shell Unloading Wharf on Westpoint Slough that would be removed is located approximately 640 feet from tidal marsh on Greco Island; due to the intervening slough separating construction activity from this marsh, nesting rails would not be disturbed.

Pile driving to install the deep foundations for the buildings would result in noise and vibration impacts that could cause minor disturbance to breeding rails. However, considering the distance between

[39] State Coastal Conservancy. 2012. SF Bay Living Shorelines: Near-shore Linkages Project. Available: https://scc.ca.gov/files/2025/11/SF-Bay-Living-Shorelines_San-Rafael_Hayward_-final-design-20Jan2012.pdf.

[40] San Francisco Bay Restoration Authority. 2023. Heron's Head Park Shoreline Resilience Project: Phases 1 and 2. Available: http://www.sfbayrestore.org/projects/herons-head-park-shoreline-resilience-project-phases-1-and-2.

[41] Port of Redwood City. 2026. Port of Redwood City Leads Bay Region with First-of-Its-Kind Living Shoreline Pilot Project. Available: https://www.redwoodcityport.com/post/port-of-redwood-city-leads-bay-region-with-first-of-its-kind-living-shoreline-pilot-project.

vibration and noise sources and marshes with suitable habitat and the likely habituation of rails in marshes to elevated noise and vibration occurring at the Port, construction of the visitor-serving uses would have very little impact on these species' regionally available foraging habitat and no substantial impact on regional populations of these species. The impact would be less than significant.

Nonetheless, because of the relatively low regional populations of special-status marsh-breeding species and the potential for injury or mortality, or nest/habitat abandonment, as a result of use of heavy equipment and increased human disturbance during project construction, there would be a substantial adverse effect, either directly or through habitat modifications, on these species; the impact would be significant.

Impacts on Nonbreeding Special-Status Birds

Construction activities would result in some disturbance of tidal aquatic and developed habitats and would result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during project construction). However, it would not result in the loss of individuals as individuals of these species would be able to move away from any construction areas or equipment before they could be injured or killed. As previously discussed, the project area provides a small amount of foraging habitat but does not provide high-quality foraging habitat used regularly or by large numbers of individuals of any of these species. Construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on nonbreeding special-status birds; the impact would be less than significant.

Impacts on Monarch Butterfly

As discussed for the ferry terminal, monarch butterflies are only occasional visitors during migration and construction of the visitor-serving uses would not result in injury or mortality of monarchs, as they would fly away as personnel or equipment approaches. Construction of the visitor-serving uses would not result in the loss of any high-quality foraging habitat for migrant individuals. Construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on the regional populations of the monarch butterfly; the impact would be less than significant.

Impacts on Western Red Bats and Pallid Bats

Existing trees are unlikely to be removed during construction of the visitor-serving uses, unless trees installed as part of the ferry terminal landscaping would later require removal and/or if any trees require removal or disturbance for establishing utilities connections. Further, as discussed for the ferry terminal, western red bats have not been documented to occur in the project area, and there is no expectation that a maternity colony or large roost of pallid bats would occur in or near the project area, or that the species would forage regularly in the project area. Construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on western red bats or pallid bats; the impact would be less than significant.

Impacts on California Sea Lions and Harbor Seals

As previously discussed, harbor seals do not occur in the landside components of the terminal project area, but two haul out and pupping sites are located on Corkscrew Slough and the bayward edge of Outer Bair Island. Increased disturbance in the form of elevated noise and vibration during construction of the visitor-serving uses could cause harbor seals to abandon pupping and haul out sites. However, as these

sites are located over 1 mile from the project area, the intervening distance would attenuate project noise and vibration to a negligible level. Therefore, construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on harbor seal and California sea lion pupping and haul out sites; the impact would be less than significant.

As discussed for the ferry terminal, any seals or sea lions occurring in the Bay near the project area are sufficiently habituated to noise and human activity that occur out of water; thus, there is a low probability of any adverse effect due to land-based construction activities. However, as discussed in Appendix C, underwater sound waves produced by in-water construction activities during removal of the Shell Unloading Wharf would cause injury of seals or sea lions such as temporary or permanent hearing impairment, physical damage to tissues and organs, related injuries, and possibly mortality.[42] Demolition may also increase water turbidity that could alter foraging patterns or reduce foraging success. Therefore, in-water construction activities for removal of the Shell Unloading Wharf would have a substantial adverse effect, either directly or through habitat modifications, on harbor seals and California sea lions; the impact would be significant.

Impacts due to Increased Lighting

The use of lighting at night during the construction phase may result in potential impacts on animal species in the project area, including migratory birds. However, lighting associated with the construction of the visitor-serving uses would not be substantial and would be similar to or less than the adjacent uses, which contribute to the moderately high levels of ambient night lighting in the surrounding area. As with construction of the ferry terminal discussed above, light sources during construction would primarily include security lighting that is directed inward towards the project area and may include occasional and limited nighttime construction activities. Nighttime construction activities, should they occur, would involve the use of on-site lighting focused on the work area and not onto adjoining properties and would not create a new source of substantial light. Wildlife in adjacent aquatic and tidal marsh habitat are already conditioned to moderate levels of light at night due to existing lights present in the project area and adjacent areas. Therefore, the use of lighting during construction of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be less than significant.

Conclusion

Based on the impacts discussed above, construction of the visitor-serving uses would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

3.3.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The project area is predominately developed and altered by human activity, and therefore, as described in detail for the ferry terminal and visitor-serving uses, construction of the proposed project would not impact special-status plants and would have less than significant impacts on non-breeding special status

[42] Erbe, C. 2012. Effects of Underwater Noise on Marine Mammals. Advances in experimental medicine and biology. 730. 17-22. 10.1007/978-1-4419-7311-5_3.

birds, the monarch butterfly, and bats. However, the potential for injury or mortality, or nest/habitat abandonment as a result of use of heavy equipment and increased human disturbance during project construction would be a significant impact on special-status marsh-breeding birds and mammals. Additionally, in-water construction activities associated with the water components of the ferry terminal and the removal of the Shell Unloading Wharf would result in significant impacts on special-status fish and fish managed under FMP due to the potential for injury, mortality, or impairment of fish health and on California sea lions and harbor seals through the production of underwater sound waves and an increase in water turbidity. Therefore, construction of the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

3.3.5.1.2 Operations

3.3.5.1.2.1 Ferry Terminal

Impacts on Special-Status Plant Species

No special-status plant species are known or expected to occur in the project area. California seablite and Point Reyes bird's beak occur on Bair Island and Greco Island along the proposed ferry route. However, ferry operation at a speed of 7 knots or less within Redwood Creek would prevent wave runup and associated marsh erosion. Thus, operation of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species; there would be no impact.

Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat

Following construction, ferries operating in Redwood Creek could physically strike special-status fish such as white sturgeon, green sturgeon, steelhead, or Central Valley fall-run chinook salmon. However, these fish are present in very low numbers and/or irregularly in Redwood Creek given their low populations. Also, because ferries would operate at a speed of 7 knots or less within Redwood Creek, fish would be able to move out of the way of the ferry because they would be able to hear the approaching ferry and would have ample time to react. Similarly, in areas where marine mammals are known to occur, National Oceanic and Atmospheric Administration (NOAA) Fisheries has established vessel speeds restrictions of 10 knots or less to reduce the potential for vessel collisions.[43] The probability and magnitude of impact due to vessel strikes would be very low, and thus less than significant. Maintenance dredging for the proposed project from the navigation channel to the terminal and at the ferry berths, if required, would occur every 2-10 years to maintain ferry access to the dock, which may result in additional impacts to water quality. Thus, EFH and designated critical habitat for Central California Coast steelhead and southern green sturgeon would be impacted by dredging, which would adversely impact water quality, potentially impairing fish health. Operation of the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on special-status fish and fish managed under FMPs; the impact would be significant.

[43] National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service. 2026. Understanding Vessel Strikes website. Available: https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes. Accessed July 15, 2026.

Impacts on Special-Status Marsh-Breeding Birds and Mammals

Ferry operations would contribute to increased noise in the area that could impact breeding rails. However, rails in marshes along Redwood Creek are likely already habituated to boat traffic and industrial activities occurring at the Port that generate elevated noise and vibration. As a result of this habituation and the distance between vibration and noise sources and marshes with suitable habitat, operation of the ferry terminal would have very little impact on these species' regionally available foraging habitat and no substantial impact on regional populations of these species.

Ferry operation adjacent to Bair Island and Greco Island would impact breeding rails if wave runup from the ferry caused scouring to the marsh plain, erosion of mudflat, or over washing of nests on oyster shell beaches. The results of the Ship Wake and Morphology Assessment Report for the proposed project[44] indicate that ferries traveling at a speed of 35 knots in the Redwood Creek navigation channel between the ferry dock and power transmission towers between Bair Island and Greco Island would cause changes to the shoreline profile, resulting in significant impacts to tidal salt marsh, intertidal mudflat, and oyster shell beach habitat. Conversely, the report found that ferries traveling at a speed of 7 knots within the Redwood Creek navigation channel between the ferry dock and the northeast corner of Outer Bair Island (where Redwood Creek completely opens up to the Bay) had a negligible impact on tidal salt marsh, intertidal mudflat, and oyster shell beach habitat adjacent to the Redwood Creek navigation channel. As specified in Section 2.5.4.1 (Project Description), ferry vessels would slow to 7 knots within Redwood Creek. The transition would occur when the vessels are offshore of Bair Island's northeastern point to minimize wake effects on the marsh islands at Lights 5 and 6 (approximately 1.4 miles from the proposed ferry terminal). The change of speed would occur approximately 1 mile from land where wake impacts would have minimal effects on erosion. Therefore, operation of the ferry terminal would have very little impact on these species' regionally available foraging habitat and no substantial impact on regional populations of these species. Operation of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on special-status marsh-breeding species; the impact would be less than significant.

Impacts on Nonbreeding Special-Status Birds

California least terns regularly forage in the open bay between Alameda Point and San Francisco and in the Oakland Estuary along the ferry routes. This area has existing navigation channels that are well used by watercraft transiting the Bay, including ferries, other large commercial vessels, and recreational boaters. The additional ferry trips that would occur under the proposed project represent a very small increase in the overall number of vessels transiting the project area and they would not impact foraging least terns, which are habituated to the presence of vessels within the foraging areas. As a result, ferry terminal operations would have very little impact on California least terns' regionally available foraging habitat and would not have a substantial adverse effect, either directly or through habitat modifications, on nonbreeding special-status birds; the impact would be less than significant.

[44] COWI. February 2025. Port of Redwood City – Ferry Terminal Environmental Review, Ship Wake and Morphology Assessment Report (Appendix G of this Draft EIR).

Impacts on Monarch Butterfly

Operation of the ferry terminal would not result in injury or mortality of monarchs; operations of the ferry terminal would not result in the loss of any high-quality foraging habitat for migrant individuals. Furthermore, upon operation of the ferry terminal, landscaping in the project site may contain flora that provides habitat for monarch butterflies. Monarch butterflies are expected to occur in the project area only as occasional visitors during migration. Therefore, operation of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on the monarch butterfly; there would be a less than significant impact on this species' regionally available foraging habitat and a less than significant impact on regional populations of the monarch butterfly.

Impacts on Western Red Bats and Pallid Bats

Western red bats are uncommon and not documented to occur in the project vicinity. Due to the intensity of urban development in the area, it is also unlikely that a colony or large roost of pallid bats would occur or forage regularly in the project area due to the absence of suitable roosting habitat on the project site and lack of observations of this species. Therefore, operation of the ferry terminal would not have a substantial adverse effect, either directly or through habitat modifications, on western red bats or pallid bats; the impact would be less than significant.

Impacts on California Sea Lions and Harbor Seals

Due to the shipping activity at the Port of Redwood City and personal watercraft from nearby marinas, heavy industry along the shoreline, and other human activity in the project area and proposed ferry routes, any seals or sea lions occurring in the Bay near the project area or proposed ferry routes are sufficiently habituated to noise and human activity that occur out of water that there is a low probability of any substantial adverse effect due to ferry operations.

However, maintenance dredging for the ferry channel may increase water turbidity that could alter foraging patterns or reduce foraging success for seals and sea lions. Therefore, operation of the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on harbor seals and California sea lions; the impact would be significant.

Impacts due to Increased Lighting

The operation of the ferry terminal would include lighting for various components such as the access pier, gangway and float, walkways, entrance and passenger waiting area, as well as lighting for the surface parking lot, access road, along the Seaport Boulevard corridor improvements, and the Bay Trail. The new lighting would comply with Redwood City's Program BE-15 (Title 24 Lighting Zone), which requires that all new development and redevelopment use low mounted, downward casting exterior lighting to reduce light trespass onto adjacent properties. However, depending on the location, direction, and intensity of exterior lighting, this lighting could potentially spill into adjacent natural areas such as Redwood Creek, Westpoint Slough, Bair Island, Greco Island, or San Francisco Bay. These new light sources would increase nighttime lighting from existing levels. Increased light at night can impact all marine life by shifting or otherwise disrupting circadian rhythm, resulting in changes in the timing of behavioral and physiological processes that impact foraging, reproduction, and survival. Although the impacts of increased light at night on harbor seals (and most marine mammals) have not been well studied in the literature, increased

light at night may also adversely impact the harbor seal populations in the area by shifting or disrupting their circadian rhythm.

Lighting within the adjacent natural areas would increase, and animals using these areas may be subject to increased predation due to attraction and decreased habitat availability for species that show aversions to increased lighting, and alterations of physiological processes. This impact on local wildlife populations would be significant due to the high ecological value of the adjacent portion of San Francisco Bay. In addition, lighting from the ferry terminal also has some potential to attract and/or disorient birds, especially during inclement weather when nocturnally migrating birds descend to lower altitudes. Therefore, the use of lighting during operation of the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on wildlife species; the impact would be significant.

Conclusion

Based on the impacts discussed above, operation of the ferry terminal would have a substantial adverse effect, either directly or through habitat modifications, on species; the impact would be significant.

3.3.5.1.2.2 Visitor-Serving Uses

Impacts on Special-Status Plant Species

No special-status plant species are known or expected to occur in the project area. The project site contains ornamental plant species. Therefore, operation of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on special-status plant species; there would be no impact.

Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat

Operations of visitor-serving uses would result in an increase in the amount of impervious surfaces over existing conditions, which would increase stormwater runoff. This additional runoff compared to existing conditions may result in increased turbidity of the water or increased sediment entering adjacent waterways, thereby impacting fish habitat. However, the new stormwater system would be installed in compliance with State and City requirements that include City Engineering Standards for storm drainage (including Volume III) and the Phase II Small MS4 permit. Compliance with these requirements would reduce adverse impacts from operation of the visitor-serving uses on fish habitat. Therefore, operation of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on special-status fish and fish managed under FMPs; the impact would be less than significant.

Impacts on Special-Status Marsh-Breeding Birds and Mammals

Operations of the visitor-serving uses would contribute to increased noise in the area that could impact breeding rails. However, these rails are likely habituated to boat traffic and industrial activities occurring at the Port that generate elevated noise and vibration. As a result of this habituation and considering that no operational activities of the visitor-serving uses would occur within salt marsh habitat, there would be no substantial adverse impact, either directly or through habitat modifications, on these species' regionally available foraging habitat or on regional populations of these species; the impact would be less than significant.

Impacts on Nonbreeding Special-Status Birds

Operation of the visitor-serving uses would increase visitors to the project site, which may disturb developed habitats and could disturb foraging or roosting individuals of nonbreeding special-status birds, such as least terns. The project site would provide a small foraging habitat for such species, however the project area does not provide high-quality foraging habitat used regularly or by large numbers of individuals of such species. Species in this area are habituated to industrial activities from the adjacent Port uses. As a result, operation of the visitor-serving uses would not have a substantial adverse impact on these species' regionally available foraging habitat or on regional populations of these species. Thus, the impact would be less than significant.

Impacts on Monarch Butterfly

Operation of the visitor-serving uses would not result in injury or mortality of monarchs, as they would fly away as personnel, equipment, or vehicles approach. Because the project area supports only low-quality and limited floral resources, the visitor-serving uses would not result in the loss of any high-quality foraging habitat for migrant individuals. As a result, operation of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on the monarch butterfly; the impact would be less than significant.

Impacts on Western Red Bats and Pallid Bats

Western red bats are uncommon and not documented to occur in the project vicinity. Due to the intensity of urban development in the area, it is also unlikely that a colony or large roost of pallid bats would occur or forage regularly in the project area. Therefore, operation of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on bat species; the impact would be less than significant.

Impacts on California Sea Lions and Harbor Seals

Operation of the visitor-serving uses would draw an increase in visitors to the project site, thereby increasing noise levels in the project area, which could cause harbor seals to abandon pupping and haul out sites on Corkscrew Slough and Outer Bair Island. However, as these are located over 1 mile from the project area, the intervening distance would attenuate project noise and vibration to a negligible level and impacts on pupping and haul out sites would be less than significant. Due to the shipping activity at the Port of Redwood City and personal watercraft from nearby marinas, heavy industry along the shoreline, and other human activity in the project area, any seals or sea lions occurring in the Bay near the project area are sufficiently habituated to noise and human activity that occur out of water that there is a low probability of any substantial adverse effect due to land-based operations. Therefore, operation of the visitor-serving uses would not have a substantial adverse effect, either directly or through habitat modifications, on harbor seals or California sea lions; the impact would be less than significant.

Impacts due to Increased Lighting

The visitor-serving uses would install lighting to illuminate the buildings, building architectural lighting, and pedestrian lighting. The new lighting would comply with Redwood City's Program BE-15 (Title 24 Lighting Zone), which requires that all new development and redevelopment use low mounted, downward casting exterior lighting to reduce light trespass onto adjacent properties. However, depending on the location, direction, and intensity of exterior lighting, this lighting could potentially spill into adjacent

natural areas such as Redwood Creek, Westpoint Slough, Bair Island, Greco Island, or San Francisco Bay. These new light sources would increase nighttime lighting from existing levels. As discussed for the ferry terminal, the increased lighting would result in significant impacts to local marine life, harbor seal populations, and other wildlife populations due to the high ecological value of the adjacent portion of San Francisco Bay. Additionally, as a result of the increase in lighting in the project area relative to baseline conditions, which currently consist of several low lumen and low temperature security lights, some birds moving along the San Francisco Bay at night may be (1) attracted to the project area, where they are more likely to collide with buildings; and/or (2) disoriented by night lighting, potentially causing them to collide with the buildings. Therefore, the increased lighting used during operation of the visitor-serving uses would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

Conclusion

Based on the impacts discussed above, operation of the visitor-serving uses would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

3.3.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The project area is predominately developed and altered by human activity, and therefore, as described in detail for the ferry terminal and visitor-serving uses, operation of the proposed project would not impact special-status plants and would have less than significant impacts on non-breeding special status birds, special-status marsh-breeding birds and mammals, the monarch butterfly, and bats. However, the proposed project's in-water operational activities would result in significant impacts on special-status fish and fish managed under FMPs due to the potential for injury, mortality, or impairment of fish health during maintenance dredging, which could impact water quality, and it would have significant impacts on seals and sea lions due to the potential that increased water turbidity could alter foraging patterns or reduce foraging success. Further, lighting within the adjacent natural areas would increase under operation of the proposed project, and animals using these areas may be subject to increased predation due to attraction and decreased habitat availability for species that show aversions to increased lighting, and alterations of physiological processes. In addition, lighting from the proposed project also has potential to attract and/or disorient birds, especially during inclement weather when nocturnally migrating birds descend to lower altitudes. Therefore, operation of the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be significant.

3.3.5.1.3 Mitigation Measures

The following mitigation measures are proposed to reduce impacts on candidate, sensitive, and special-status species from construction and operation of the proposed project:

MM BIO-1: Prior to the start of in-water construction, personnel involved in in-water activities shall be trained by a qualified biologist (experienced in construction monitoring, as approved by U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife CDFW) in the importance of the marine environment to special-status fish and other aquatic animals and plants, and the environmental protection measures put in place to prevent impacts to these species, their habitats, and Essential Fish Habitat (EFH). The training shall include, at a minimum, the following:

- A review of the special-status fish, other aquatic animals and plants, and sensitive habitats that could be found in or downstream from work areas
- Measures to avoid and minimize adverse effects to special-status fish, other aquatic animals and plants, their habitats, and EFH
- A review of all conditions and requirements of environmental permits, reports, and plans (e.g., U.S. Army Corps of Engineers (USACE) permits)

MM BIO-2: All dredging, pile driving, and other in-water construction activities shall adhere to the applicable measures and dredging work windows within the Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS). Thus, in-water work shall be conducted between September 1 through November 30, based on the standard work windows for steelhead, Pacific herring, longfin smelt, and California Ridgway's rail (because dredging may occur within 250 of tidal salt marsh).

MM BIO-3: During construction, the following noise minimization and avoidance measures shall be implemented:

- All in-water work, including dredging, pile driving, and demolition, will be conducted between September 1 and November 30 when the likelihood of sensitive fish species being present in the work areas is minimal.
- To the extent feasible, all pilings shall be installed and removed with a vibratory pile driver hammer. As feasible, vibratory pile driving shall be conducted following the USACE 2024 "U.S. Army Corps of Engineers Proposed Additional Procedures and Criteria for Permitting Projects under a Programmatic Determination of Not Likely to Adversely Affect Select Listed Species in California (the 2024 NLAA Program)". If use of a vibratory pile drive hammer is infeasible due to the presence of dense clay or rock, and an impact hammer is needed to complete the driving of the steel pipe piles so they reach sufficient embedment to resist the lateral loads, the pile shall be driven as deep as possible with a vibratory hammer prior to the use of the impact hammer. Use of an impact hammer shall comply with all minimization and avoidance measures identified in this mitigation measure.

- An impact pile driver may only be used where necessary to complete installation of steel pilings that reach refusal prior to the design tip elevation using a vibratory pile hammer and all precast concrete piles in accordance with seismic safety or other engineering criteria. With implementation of the below specifications, use of an impact pile driver would result in less than significant impacts to special-status fish, designated critical habitat, and EFH.
  - If an impact pile driver is used, it will be cushioned using a 12-inch-thick wood cushion block to minimize noise.
  - A Hydroacoustic Monitoring Plan shall be prepared and approved by the Port of Redwood City to be implemented in the event that an impact hammer is used. The sound monitoring results will be made available to CDFW, NMFS, and USFWS.
  - The plan will provide detail on the sound attenuation system, and the methods used to monitor and verify sound levels during impact pile driving activities.
  - The plan will include the use of a bubble curtain during any impact pile driving of piles in the water. The bubble curtain will be operated in a manner consistent with the following performance standards:
    - The bubble curtain will distribute air bubbles around 100% of the piling perimeter for the full depth of the water column.
    - The lowest bubble ring will be in contact with the mudline for the full circumference of the ring, and the weight attached to the bottom ring shall ensure 100% mudline contact. No parts of the ring or other objects shall prevent full mudline contact.
    - Air flow to the bubblers must be balanced around the circumference of the pile.
  - A "soft start" technique shall be employed in all pile driving to give fish and other aquatic species an opportunity to vacate the area. When initiating pile driving, or when there has been downtime of 30 minutes or more without pile driving, the contractor will initiate the driving with ramp-up procedures described below.
    - For vibratory hammers, the contractor will initiate the driving for 15 seconds at reduced energy, followed by a 30-second waiting period. This procedure will be repeated two additional times before continuous driving is started.
    - For impact hammers, an initial set of three strikes shall be made by the hammer at 40% energy, followed by a 30-second waiting period, then two subsequent three-strike sets at 40% energy, with 30-second waiting periods, before initiating continuous driving.
    - A biological monitor shall be present during all pile driving to observe the work area before, during, and after pile driving. The monitor shall be present as specified by NMFS during the impact pile-driving phases of construction.

- If pile installation must occur at times other than the approved work window, the project applicant will obtain incidental take authorization from CDFW, National Oceanic and Atmospheric Administration (NOAA), and USFWS, as necessary, to address potential impacts on steelhead, Central Valley fall-run Chinook salmon, longfin smelt, and Pacific herring and implement all requested actions to avoid impacts. Incidental take authorization will require submitting a request for informal or formal consultation to CDFW, NOAA, and USFWS. If take authorization is obtained, the project must comply with the terms and conditions outlined in programmatic Biological Opinions (BO) by the LTMS and any additional mitigation measures prescribed by agencies.

MM BIO-4: During dredging activities occurring during both construction and operational maintenance, the following minimization and avoidance measures shall be implemented:

- All dredging shall be conducted between September 1 and November 30. If pile installation must occur at times other than the approved work window, the project applicant will obtain any necessary incidental take authorization, and will comply with required terms and conditions of the LTMS programmatic BOs.
- A Sediment Analysis Plan and testing of the sediments in the dredging area shall be conducted as required by the Dredged Material Management Office (DMMO) to ensure that sediment shall be disposed of safely. The Port shall utilize sediment analysis data from the on-going dredging within Redwood Creek, along the ferry routes and directly adjacent to the project area. Preparation of a Sediment Analysis Plan and testing of the sediments in the proposed dredging area are currently required by the DMMO to ensure that dredged sediment can be safely disposed of at a suitable location. The Sediment Analysis Plan prepared by the construction contractor shall be provided to the Port of Redwood City for approval (based on established DMMO standards) prior to implementation.
- Impermeable silt curtains and/or gunderbooms, a tool similar to a silt curtain that is made of permeable material that allows water to flow through but traps sediment within the curtain, shall be used to contain sediments within a limited area until it resettles. They shall be monitored daily during active construction operations around the pile driving site to contain and minimize the spread of suspended sediments.
- Operational controls such as equipment design and monitoring shall be implemented for dredges to limit the amount of sediment released while dredging. These controls include:
  - Ensuring that buckets are properly sealed to prevent sediment leaks
  - Conducting regular visual inspections of turbidity barriers
  - Monitoring for turbidity during dredging operations
  - Using sealed barges or covers to transport materials

- Clamshell dredges with a bucket with a capacity of 10 cubic yards or less shall be used to reduce the occurrence of fish and mobile invertebrate entrainment.
- Baseline water quality assessments shall be conducted before pile driving begins to establish reference conditions. The construction contractor shall develop a Water Quality Monitoring Program to be reviewed and approved by the Port of Redwood City, and implemented to measure parameters such as turbidity, suspended solids, and contaminants in real-time during pile driving. Turbidity shall not increase more than 10% above natural levels in areas where natural turbidity is 50 Nephelometric Turbidity Units (NTU) or greater; suspended solids shall not increase in concentration so as to cause nuisance; and contaminants shall not increase in concentration so as to be detrimental to aquatic life consistent with the San Francisco Bay Regional Water Quality Board's Water Quality Control Plan for the San Francisco Basin. Construction operators shall adjust pile driving operations by adjusting deployment of turbidity curtains and changing the energy of pile driving operations based on monitoring results to ensure compliance with water quality standards set by the San Francisco Bay Regional Water Quality Control Board and as identified in the Port-approved Water Quality Monitoring Program.

MM BIO-5: The following measures shall be implemented to reduce spillover of lighting into, or glare/increased luminance perceived by special-status animals using aquatic and marsh habitats, as well as adverse effects of lighting on migratory birds.

- Through a combination of appropriate fixture selection low mounting height, glare shielding, and orientation/aiming of light fixtures, the design team shall minimize light spill towards sensitive habitat areas and towards the sky. All exterior landside lighting shall be fully shielded to block illumination from shining outward towards Redwood Creek and Westpoint Slough, and to prevent the lit portions of these fixtures (i.e., the lamps) from being visible to fish, birds, or mammals in the water. Limited uplighting may apply to select building façade areas and landscape features that are at least 50 feet from the high tide line along the Bay. These uplight fixtures shall incorporate glare shields and strategic aiming to prevent light from being visible beyond the feature being lit (i.e., the feature being lit shall block luminance from view of birds flying overhead); shall incorporate timeclock control to turn off uplighting from 10 pm until the next evening; and shall use 40-Watt maximum lamps to minimize light output.
- Along the gangway and loading area of the steel float, where night lighting is necessary for passenger safety, motion sensors will be used to limit when lights are on to only when necessary. Navigation lights at the corner of the steel float facing towards Redwood Creek will need to remain on at all times at night for ferry safety. All lights will be pointed downwards and will incorporate shields to focus the illumination towards the middle of the gangway and steel float. Low-intensity (100-200 lumens) and warm-colored (2700K-3000K) lighting will be used in these areas to minimize brightness and emission of blue lights that can disrupt wildlife circadian rhythms.

- Lighting for public roadways and traffic signage lighting, including lighting for driveway entrances occurring in the public right-of-way, shall be excluded from these Backlight/Uplight/Glare (BUG) rating limitations to support public safety and proper illumination of public streets.
- Except as indicated in the previous two bullets (regarding minimizing lighting on surface of surrounding water and the exceptions for public streets), fixtures shall comply with lighting zone LZ-2, Moderate Ambient, as recommended by the International Dark-Sky Association for light commercial business districts and high-density or mixed-use residential districts. The allowed total initial luminaire lumens for the project area is 2.5 lumens per square foot of hardscape, and the Backlight/Uplight/Glare (BUG) rating for individual fixtures shall not exceed B3 or G2, as follows:
  - B3: 2,500 lumens high (60–80 degrees), 5,000 lumens mid (30–60 degrees), 2,500 lumens low (0–30 degrees)
  - G2: 225 lumens (forward/back light 80–90 degrees), 5,000 lumens (forward 60–80 degrees), 1,000 lumens (back light 60–80 degrees asymmetrical fixtures), 5,000 lumens (back light 60–80 degrees quadrilateral symmetrical fixtures)
- Exterior lighting shall be minimized in accordance with recommendations from the International Dark-Sky Association from midnight until dawn, at a minimum, except as needed for safety and City code compliance.
- Occupancy sensors, dimmers, or other mechanisms from 10 pm until dawn, at a minimum, shall be used during bird migration seasons (February–May and August–November) to reduce spillage of lighting from building interiors.

3.3.5.1.4 Significance of Impact After Mitigation

Impacts on Special-Status Plant Species

As indicated above, no mitigation is required relative to this impact. There would be no impact on special-status plant species due to project construction and operations.

Impacts on Special-Status Fish, Designated Critical Habitat, and Essential Fish Habitat

Mitigation Measures MM BIO-1 through BIO-4 address impacts on special-status fish and fish managed under FMPs due to the potential for injury, mortality, or impairment of fish health during in-water construction and maintenance dredging. This includes compliance with DMMO standards[45] and the San Francisco Basin Plan requirements. With implementation of Mitigation Measures MM BIO-1 through BIO-4, impacts on fish and their habitats during construction and operation of the proposed project would be reduced to a level less than significant.

[45] San Francisco Estuary Institute. 2010. Dredged Material Testing Thresholds for San Francisco Bay Area Sediments webpage. Available: https://www.sfei.org/projects/dredged-material-testing-thresholds-san-francisco-bay-area-sediments. Accessed December 16, 2025.

Impacts on Special-Status Marsh-Breeding Birds and Mammals

Implementation of Mitigation Measure MM BIO-1 minimizes any adverse effects on special-status marsh-breeding birds and their habitats. Mitigation Measure MM BIO-1 would train personnel involved in construction activities by a qualified biologist in the importance of tidal salt marsh and intertidal mudflats to these species, and the environmental protection measures put in place to reduce impacts to these species and their habitats. With implementation of Mitigation Measure MM BIO-1, impacts of the proposed project on the California Ridgway's rail, California black rail, western snowy plover, salt marsh harvest mouse, salt marsh wandering shrew, Alameda song sparrow, and San Francisco common yellowthroat would be less than significant.

Impacts on Nonbreeding Special-Status Birds

As indicated above, no mitigation is required relative to this impact. Construction and operational impacts of the proposed project on nonbreeding special-status birds would be less than significant.

Impacts on Monarch Butterfly

As indicated above, no mitigation is required relative to this impact. Construction and operational impacts of the proposed project on the monarch butterfly would be less than significant.

Impacts on Western Red Bats and Pallid Bats

As indicated above, no mitigation is required relative to this impact. Construction and operational impacts of the proposed project on these species would be less than significant.

Impacts on California Sea Lions and Harbor Seals

Mitigation Measures MM BIO-1, BIO-3, and BIO-4 reduce the magnitude of underwater noise produced and increase in water turbidity from construction and operation of the proposed project. With implementation of MM BIO-1, BIO-3, and BIO-4, impacts on seals and sea lions would be less than significant.

Impacts due to Increased Lighting

Mitigation Measure MM BIO-5 reduces impacts of operational lighting on animals, including by following lighting standards recommended by the Internation Dark-Sky Association.[46] With implementation of Mitigation Measure MM BIO-5, impacts of the proposed project on animals due to increased lighting would be less than significant.

Conclusion

With implementation of Mitigation Measures MM BIO-1 through MM BIO-5, construction and operation of the proposed project would have less than significant impacts on candidate, sensitive, and special-status species.

[46] International Dark-Sky Association. 2011. Model Lighting Ordinance with User's Guide. Available: https://www.darksky.org/wp-content/uploads/bsk-pdf-manager/16_MLO_FINAL_JUNE 2011.PDF.

3.3.5.2 Impact 3.3-2

Impact 3.3-2: Would the proposed project have a substantial adverse effect on:

- **Any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**
- **State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

3.3.5.2.1 Construction

3.3.5.2.1.1 Ferry Terminal

Construction of the ferry terminal would impact tidal salt marsh, (considered a sensitive natural community as "northern coastal salt marsh" by CDFW) and open water/tidal aquatic habitat. The Redwood City General Plan and San Francisco Bay Plan identify the presence of tidal salt marsh and open water/tidal aquatic habitats in the project area (Appendix C). These communities are also regulated as state or federally protected wetlands and aquatic habitats. Therefore, "impacts on any riparian habitat or other sensitive natural community" and "impacts on State or federally protected wetlands" are jointly addressed in this impact section.

In-water construction of the ferry terminal would temporarily impact 0.39 acre of tidal salt marsh and open water/tidal aquatic habitat. Construction of the ferry terminal and associated facilities – including a pile-supported access pier (for a shelter platform and gangway connection), a floating platform with two ferry berths, and gangway within Redwood Creek – would require the installation of piles, float, access pier and gangway installation, and dredging within open water/tidal aquatic habitat at Redwood Creek on the western border of the terminal project area.

Major in-water and waterside construction activities would include: (1) berth dredging; (2) marine pile installation; (3) marine float installation; (4) fixed pier construction; and (5) marine utility and outfitting, which could result in water quality impacts that would have an adverse effect on State and federally protected wetlands in and around the project site, including tidal salt marsh and open water/tidal aquatic habitat. As described in greater detail in Section 3.9, Hydrology and Water Quality, of this Draft EIR, construction of the ferry terminal would require compliance with the Statewide General Construction Permit and compliance with permits and approvals as required under USACE, USEPA, RWQCB, and BCDC regulations. The permits and approvals would include standard BMPs to reduce or avoid water quality and sedimentation impacts associated with dredging and other construction activities, such as the use of floating surface booms during demolition activities along the shoreline and pile installation to contain debris, preparation of a spill contingency plan for hazardous waste spills into waterways and keep floating booms and absorbent materials on-site, and not allowing work barges to ground out at low tide (see Section 3.9, Hydrology and Water Quality, of this Draft EIR for additional information on water quality). Compliance with permit requirements would reduce potential water quality impacts to open water/tidal aquatic habitat. However, construction of the ferry terminal would have a substantial adverse effect on open water/aquatic habitats due to the loss of such sensitive habitats that have occurred regionally and the proportionately high ecological value of aquatic habitats; the impact would be significant. The raising of the site elevation during construction of the ferry terminal would result in permanent fill/loss of 0.001 acre of the tidal salt marsh and temporary impacts to up to 0.10 acre of that tidal salt marsh due to

construction activity and access. Impacts to that tidal salt marsh have already been compensated through the Pacific Shores Center Project EIR, which included the 9 acre project site. That compensatory mitigation was provided at the Bair Island mitigation site surrounded by Deepwater Slough.[47] The Mitigation and Monitoring Plan implemented by the Pacific Shores Center Project EIR required the creation of 20 acres of tidal salt marsh within the 140-acre site located across Redwood Creek from the project site. A review of aerial photos demonstrated that the tidal salt marsh created by that mitigation is still intact.[48] In summary, the permanent and temporary impacts of the proposed project on tidal salt marsh would constitute a substantial adverse effect, but these impacts would be less than significant because of prior mitigation from the Pacific Shores Center Project. Therefore, construction of the ferry terminal would have a less than significant impact on tidal salt marsh.

Construction of the ferry terminal would have no impact on the muted tidal marsh in the northeastern portion of the project area as it would be filled prior to construction by CEMEX pursuant to lease terms and as analyzed in a prior CEQA evaluation.[49] This would occur before the end of the existing lease, prior to commencement of ferry terminal construction, and therefore the area currently supporting muted tidal marsh would be considered a ruderal land cover type at the time of project construction. Thus, construction of the ferry terminal would not have a substantial adverse effect on this habitat; there would be no impact.

As discussed above, direct and indirect impacts on open water/aquatic habitats would be significant. Construction of the ferry terminal would therefore have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and a substantial adverse effect on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; the impact would be significant.

3.3.5.2.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would occur primarily within the 9.2-acre project site set back 100 feet from the edge of the Bay in an area which is previously developed and does not contain any riparian habitat or other sensitive natural community. However, as discussed for the ferry terminal, there are narrow areas of tidal wetlands along Westpoint Slough. The only in-water construction activity that would impact riparian habitat or other sensitive natural communities, including State and federally protected wetlands, is the removal of the Shell Unloading Wharf within Westpoint Slough.

Work to remove the Shell Unloading Wharf within Westpoint Slough could result in temporary water quality impacts that would have a substantial adverse effect on tidal salt marsh and open water/tidal aquatic habitat. As described for the ferry terminal above and addressed in greater detail in Section 3.9, Hydrology and Water Quality, implementation of standard BMPs, conformance with the Statewide General Construction Permit that includes the use of BMPs to protect water quality, and permits and approvals as required under USACE, USEPA, RWQCB, and BCDC would reduce the potential for construction activities to have a substantial adverse effect on riparian habitats or other sensitive natural communities directly north and west of the project site. However, the removal of the Shell Unloading

[47] City of Redwood City. 1994. Appendices to Draft Environmental Impact Report for the Pacific Shores Center Project.
[48] Google LLC. 2025. Google Earth Pro (Version 7.3) [Software]. Available: https://earth.google.com/web/.
[49] Port of Redwood City. 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

Wharf would result in direct and indirect impacts on open water/aquatic habitats from impacts to water quality such as turbidity and suspension of sediments during demolition and the impact would remain significant. Therefore, construction of the visitor-serving uses would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; the impact would be significant.

3.3.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Conformance with the Statewide General Construction Permit would reduce the potential for construction activities to have a substantial adverse effect on riparian habitats or other sensitive natural communities, including State and federally protected wetlands, surrounding the project site. In-water construction of the proposed project would result in impacts to a sensitive community (tidal salt marsh) and jurisdictional wetlands and other waters, including dredging and filling of Waters of the U.S. and State from ferry terminal in-water work, and temporary impacts related to construction access. Implementation of standard BMPs, conformance with the Statewide General Construction Permit, and permits and approvals required under USACE, USEPA, RWQCB, and BCDC would reduce the potential for construction activities to have a substantial adverse effect on riparian habitats or other sensitive natural communities, including State and federally protected wetlands. However, the construction of the ferry terminal and removal of the Shell Unloading Wharf would result in direct and indirect impacts on open water/aquatic habitats from impacts to water quality and this would remain a significant impact.

The permanent and temporary impacts of the proposed project on tidal salt marsh would constitute a substantial adverse effect, but these impacts would be less than significant because of prior mitigation from the Pacific Shores Center Project.

As described above, construction of the proposed project would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means, and the impact would be significant.

3.3.5.2.2 Operations

3.3.5.2.2.1 Ferry Terminal

The combined floating platform, pile supported pier, and ramps would result in approximately 7,680 square feet of shading impacts to Bay waters. Therefore, 0.18 acre of permanent shading impacts would occur to tidal aquatic habitat due to placement of the ferry terminal float in Redwood Creek on the western border of the project area. Water beneath the float does not contain eelgrass beds or other sensitive or submerged vegetation, and the gangway would be constructed of an aluminum mesh that allows some light transmission. Nevertheless, shading of existing tidal waters would constitute a significant impact by degrading conditions in the waters below. Furthermore, installation of the piles which support the ferry terminal would cause the permanent loss of up to 99 square feet of open water/tidal aquatic habitat within the 0.18-acre permanent shading impact footprint and in some cases below the area of shading. The existing abandoned cement Shell Unloading Wharf on the northern side of the terminal project area currently shades approximately 13,500 square feet of Bay waters within Westpoint Slough. As discussed in **Section 3.3.5.2.1.2**, the existing Shell Unloading Wharf would be removed as part of construction of the visitor-serving uses, which would result in a net decrease of

overwater shading by approximately 5,820 square feet. If removal of the wharf occurs within one year of construction of the in-water ferry terminal infrastructure (the estimated temporal lag that would allow the wharf removal to acceptably mitigate the tidal salt marsh impacts), that removal would compensate for shading by the ferry terminal infrastructure and the 99 square feet of impacts from new piles. Salt marsh vegetation colonizes very quickly when light and hydrological conditions are appropriate, so salt marsh vegetation would begin to establish in suitable areas within a year of removing the wharf. If removal of the wharf does not occur within one year, impacts of shading from the ferry terminal infrastructure and the 99 square feet of fill from the new piles would result in a substantial adverse effect on tidal waters; the impact would be significant.

Maintenance dredging at the ferry terminal may be required every 2-10 years. Dredging has the potential to cause a disturbance to water quality and therefore would impact the State and federally protected waters of Redwood Creek. The Port would need maintenance dredging permits from the DMMO agencies, including USACE, BCDC, and RWQCB for maintenance dredging. Compliance with standard dredging permit requirements from DMMO agencies (see **Section 3.3.3.1.1**) would reduce dredging-related water quality impacts to open water. However, operation of the ferry terminal would still have a substantial adverse effect on State and federally protected wetlands and other waters from disturbance to water quality caused by maintenance dredging; the impact would be significant.

Operation of the ferry terminal would result in increased boat/vessel traffic along the ferry routes, which contains extensive tidal salt marsh habitat along Redwood Creek and small patches of eelgrass along San Francisco Bay and the Oakland Estuary. A Ship Wake and Morphology Assessment Report (Appendix G of this Draft EIR) evaluated shoreline impacts of the ferry service, focusing on the hydrodynamic and morphological effects of the ferry wake on the nearshore environment. The study determined that the vessel wake would impact the Bair Island shoreline at a speed of 35 knots but have minimal effects at a lower speed of 7 knots. Under the proposed project, the ferry operation speed would be 35 knots within the Bay and 7 knots within Redwood Creek. The vessels would slow to 7 knots as they approach Bair Island at Lights 5 and 6 (approximately 1.4 mile from the proposed ferry terminal). The change of speed would occur approximately 1 mile from land where wake impacts would have minimal effects on erosion. At vessel speeds of 7 knots or less, impacts to shoreline erosion and profile changes would be less than significant. Therefore, operation of the ferry service would not have a substantial adverse effect on sensitive natural communities identified in local or regional plans, policies, or regulations, or by CDFW or USFWS. The impact would be less than significant.

Therefore, because removal of the Shell Unloading Wharf may not occur within one year of construction of the ferry terminal and maintenance dredging may be required, the operation of the ferry terminal would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; the impact would be significant.

3.3.5.2.2.2 Visitor-Serving Uses

Shading from the buildings comprising the visitor-serving uses would impact vegetation in riparian habitat directly north of the project site by affecting growth, altering species composition, and influencing water temperature. The buildings are proposed to be approximately no more than 45 feet in height above proposed grade. Because the buildings would be south of the wetlands, they would provide some shading

during the summer when the sun is more southerly in the sky. However, the wetland would be open to the sky to the east, north, and west, and would receive enough light that shading from the buildings would not result in substantial adverse effects on wetland vegetation. Additionally, the 100-foot setback between the buildings and the edge of the Bay would minimize any adverse effects of shading from buildings on wetlands or other sensitive habitats. Shading would not have a substantial adverse effect on the quality of vegetated wetlands; the impact would be less than significant.

The Shell Unloading Wharf currently shades approximately 13,500 square feet of Bay waters within Westpoint Slough. The removal of the Shell Unloading Wharf would result in a decrease of overwater shading, which would provide a benefit to riparian habitats in this area, including State or federally protected wetlands. Following removal, tidal salt marsh would reestablish in a portion of this area where elevation is suitable to support this community.

Therefore, operation of the visitor-serving uses would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; the impact would be less than significant.

3.3.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operation of the proposed project would include operation of a new ferry route within the Redwood Creek channel, San Francisco Bay, and Oakland Estuary. This route would contain tidal salt marsh habitat and small patches of eelgrass. Operation of the ferry at 7 knots or less would not have a substantial adverse effect on either of these sensitive natural communities identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; the impact would be less than significant. The proposed project may have shading impacts on riparian habitat located directly north of the 9.2-acre project site. However, the 100-foot setback between the buildings and the edge of the Bay would minimize any adverse effects of shading from buildings on wetlands or other sensitive habitats. Shading would not have a substantial adverse effect on the quality of vegetated wetlands and the impact would be less than significant.

Operation of the ferry terminal would result in 0.18 acre or 7,680 square feet of permanent shading impacts to tidal aquatic habitat and the permanent loss of 99 square feet of open water/tidal aquatic habitat. Removal of the Shell Unloading Wharf would result in a decrease of approximately 13,500 square feet of overwater shading, resulting in the net decrease of overwater shading by approximately 5,820 square feet. If removal of the Shell Unloading Wharf occurs within one year of construction of the in-water ferry terminal infrastructure, the wharf removal would compensate for the shading impacts to tidal aquatic habitat and the loss of open water/tidal aquatic habitat. However, if removal of the wharf does not occur within one year, the impact of shading from the ferry terminal infrastructure would be significant.

Therefore, because removal of the Shell Unloading Wharf may not occur within one year of construction of the ferry terminal, operation of the proposed project would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS; and on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means, and the impact would be significant.

3.3.5.2.3 Mitigation Measures

Mitigation Measures MM BIO-2, MM BIO-3, and MM BIO-4 would reduce impacts on open water/tidal aquatic habitat and State and federally protected wetlands from construction of the ferry terminal and Mitigation Measures MM BIO-2 and MM BIO-3 would reduce impacts on tidal salt marsh and open water/tidal aquatic habitat from removal of the Shell Unloading Wharf during construction of the visitor-serving uses. The following mitigation measure is proposed to reduce impacts on tidal salt marsh and open water/tidal aquatic habitat from operation of the ferry terminal.

MM BIO-6: Should removal of the Shell Unloading Wharf not occur within one year following the completion of the in-water ferry terminal infrastructure, compensatory mitigation would be required for impacts to open water/tidal aquatic habitat due to shading from ferry terminal infrastructure and 99 square feet of impacts from new piles.

If the Shell Unloading Wharf is not removed within one year following the completion of the project, compensatory mitigation may be satisfied by (1) utilizing a portion of the fill credit issued to the Port of Redwood City by the San Francisco Bay Conservation and Development Commission (BCDC) in 2013 (BCDC Permit No. 2011.006.01) for a reduction in Bay surface coverage of 29,725 feet, if approved by the BCDC, USACE, Regional Water Quality Control Board (RWQCB), and CDFW (if a permit from CDFW is necessary); (2) purchasing mitigation credits through an appropriate bank such as the San Francisco Bay Bank; or (3) implementing project-specific mitigation via creation, restoration, or substantial enhancement of tidal aquatic or tidal wetland habitat. If option 3 is used to satisfy compensatory mitigation, it would be conducted in such a way as to achieve a 2:1 ratio on-site somewhere in San Mateo County, or as otherwise required by any State or federal permitting agencies. A qualified biologist shall develop a "Wetland Mitigation and Monitoring Plan" describing the mitigation, which shall contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- Summary of habitat impacts and proposed mitigation ratios
- Goal of the restoration to achieve no net loss of habitat functions and values
- Location of mitigation site(s) and description of existing site conditions
- Mitigation design:
  - Existing and proposed site hydrology
  - Grading plan if appropriate, including bank stabilization or other site stabilization features
  - Soil amendments and other site preparation elements as appropriate
  - Planting plan
  - Irrigation and maintenance plan
  - Remedial measures and adaptive management

- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by natives) and quantity appropriate for the restoration location, and provision of ecological functions and values equal to or exceeding those in the wetland habitat affected. At a minimum, success criteria will include following:
  - At Year 5 post-mitigation, at least 75 percent of the mitigation site for tidal salt marsh will be dominated by native hydrophytic vegetation, which is an appropriate percentage for a relatively young tidal salt marsh that is on a trajectory toward providing high-quality tidal salt marsh when mature.

  If providing compensatory mitigation for planned permanent impacts to open water/tidal aquatic habitat, the Wetland Mitigation and Monitoring Plan must be approved by any regulatory agencies requiring compensatory mitigation prior to the impacts, and implementation of the Plan must begin within one year after the initiation of permanent impacts to open water/tidal aquatic habitat.

3.3.5.2.4 Significance of Impact After Mitigation

Mitigation Measures MM BIO-2, MM BIO-3, and MM BIO-4 address impacts on riparian habitat and other sensitive natural communities, including State and federally protected wetlands, during in-water construction and maintenance dredging. With implementation of Mitigation Measures MM BIO-2 through BIO-4, impacts on riparian habitat and other sensitive natural communities, including State and federally protected wetlands, during construction and maintenance dredging of the proposed project would be reduced to less than significant. Mitigation Measure MM BIO-4 would also reduce the potential for dredging during construction and operation of the proposed project to have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means to less than significant. MM BIO-6 addresses operational impacts of the proposed project on riparian habitat and other sensitive natural communities by requiring compensatory mitigation as described in **Section 3.3.3.1.1** for permanent impacts to open water/tidal aquatic habitat if the Shell Unloading Wharf is not removed within one year of the construction of the ferry terminal. Mitigation Measure MM BIO-6 would reduce the potential for operation of the ferry terminal to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS to less than significant.

3.3.5.3 Impact 3.3-3

Impact 3.3-3: Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

3.3.5.3.1 Construction

3.3.5.3.1.1 Ferry Terminal

The landside portion of the project area is densely developed; it is devoid of any sensitive terrestrial biological resources and lacks continuous, well-vegetated pathways for migratory terrestrial wildlife species. Further, due to the lack of sensitive habitats, the habitats in the project area support only

regionally common, urban-adapted breeding birds and support only a very small proportion of these species' regional populations. Consequently, there are no known established terrestrial wildlife migration corridors or established wildlife nursery sites within the landside portion of the project area. Therefore, construction of the ferry terminal would not interfere substantially with the movement of any native resident or migratory terrestrial wildlife species or with established native resident or migratory terrestrial wildlife corridors, or impede the use of native terrestrial wildlife nursery sites for most birds and other wildlife species; the impact would be less than significant.

The landside portion of the 9.2-acre project site contains a small amount of non-native vegetation and does not support habitat suitable for nesting or foraging by the California least tern or other migratory bird species. Further, as discussed in **Section 3.3.5.4**, any removal, trimming, or other activities conducted to on-site trees during construction of the proposed project would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance. In addition, all native bird species that may nest in the project area are protected from direct take by federal and State statutes, including the FESA and CESA. Thus, construction of the ferry terminal would not impede the use of a nursery site for nesting migratory bird species; the impact would be less than significant.

Redwood Creek and Westpoint Slough provide movement corridors for common fish species and marine mammals to transit between the waters in and around tidal marshes and the open waters of the San Francisco Bay, but do not support any breeding special-status species. Open water along the ferry route in the San Francisco Bay supports fish and harbor seals. Due to the pre-existing frequency of vessels in these areas, aquatic wildlife in these areas are habituated to vessel disturbance. In addition, Steinberger Slough, located 4 miles to the west of Redwood Creek, provides an alternative path for wildlife to transit to the San Francisco Bay.

In-water construction activities for the ferry terminal have the potential to disturb wetland and aquatic species in the project area due to elevated noise and vibration. Additionally, a small amount of dredging from the channel to the ferry terminal and at the ferry berth would be required to construct the ferry terminal. However, Redwood Creek, Westpoint Slough, and the proposed ferry route to San Francisco do not contain any known patches of eelgrass, which can serve as a nursery habitat. No high-quality breeding or nursery habitat for any fish is present in the project area, however both Bair and Greco Island contain high quality fish breeding and nursery habitat. Nevertheless, because aquatic species in Redwood Creek and Westpoint Slough are habituated to vessel disturbance and have an alternative path to transit to the Bay, and because these waterways do not support breeding special-status species, the proposed project would not have potential to substantially interfere with the movement of migratory aquatic species or with established native resident or migratory wildlife corridors, or impede the use of native aquatic wildlife nursery sites. The impact would be less than significant.

3.3.5.3.1.2 Visitor-Serving Uses

Construction activities for the visitor-serving uses would be primarily within the 9.2-acre project site. As discussed in **Section 3.3.5.3.1.1**, the site contains no known terrestrial wildlife migration corridors or terrestrial wildlife nursery sites. Thus, the construction of the visitor-serving uses would not interfere substantially with the movement of any native resident or migratory terrestrial wildlife species or with established native resident or migratory terrestrial wildlife corridors, or impede the use of native

terrestrial wildlife nursery sites for most birds and other wildlife species; the impact would be less than significant.

The visitor-serving uses would primarily be constructed within a portion of the project site that is currently devoid of trees. Additionally, as described for the ferry terminal, any removal, trimming, or other activities conducted to on-site trees during construction of the proposed project would comply with local laws pertaining to tree removal and protection, and federal and State laws protecting native bird species from direct take. Thus, construction of the visitor-serving uses would not interfere substantially with the use of a native nursery site for nesting; the impact would be less than significant.

Construction of the visitor-serving uses would require the removal of the abandoned Shell Unloading Wharf, which supports approximately 150 pairs of cliff swallows. Removal of this wharf would result in the loss of this nest substrate. Due to the abundance of suitable bridges, buildings, and docks/wharves used by nesting cliff swallows in the region, the loss of nest substrate resulting from removal of the abandoned wharf would not result in a decline in regional cliff swallow populations, as the displaced birds are expected to be able to find alternative nest substrates. Therefore, the loss of cliff swallow nest substrate would not interfere substantially with the movement of cliff swallows or with established native resident or migratory wildlife corridors or impede the use of a native wildlife nursery site, and the impact would be less than significant. However, if the abandoned wharf were removed during the breeding season, up to 150 nests' worth of cliff swallow eggs or young could be destroyed. Thus, removal of the abandoned wharf during the breeding season would impede the use of a native wildlife nursery site for cliff swallows, and the impact would be significant.

The removal of the wharf would occur within Westpoint Slough and would disturb aquatic wildlife. However, aquatic wildlife in Westpoint Slough and Redwood Creek are habituated to vessel disturbance and have an alternative path to transit to the Bay. Further, these waterways do not support breeding special-status species. Thus, there would be a less than significant impact on the movement of aquatic wildlife.

Therefore, construction of the visitor-serving uses would interfere substantially with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and the impact would be significant.

3.3.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, habitats in the project area support only regionally common, urban-adapted breeding birds. Further, all native bird species that may nest in the project area are protected from direct take by federal and State statutes. Thus, landside construction of the proposed project would not impede the use of a native nursery site for nesting migratory birds; the impact would be less than significant.

The removal of the Shell Unloading Wharf during construction of the visitor-serving uses would result in the loss of nest substrate for nesting cliff swallows. However, there is an abundance of suitable areas used by nesting cliff swallows in the region, and the loss of nest substrate resulting from removal of the abandoned wharf would not result in a decline in regional cliff swallow populations. Therefore, the loss of cliff swallow nest substrate would not impede the use of a native wildlife nursery site, and the impact would be less than significant. However, if the abandoned wharf were removed during the breeding season, up to 150 nests' worth of cliff swallow eggs or young could be destroyed. Thus, removal of the

abandoned wharf during the breeding season would impede the use of a native wildlife nursery site for cliff swallows, and the impact would be significant.

In-water construction activities for the ferry terminal and removal of the Shell Unloading Wharf during construction of the visitor-serving uses have the potential to disturb wetland and aquatic species in the project area due to elevated noise and vibration. However, aquatic species in Redwood Creek and Westpoint Slough are habituated to vessel disturbance and have an alternative path to transit to the Bay, and because these waterways do not support breeding special-status species, the proposed project would not have potential to substantially interfere with the movement of migratory aquatic species or with established native resident or migratory wildlife corridors, or impede the use of native aquatic wildlife nursery sites. The impact would be less than significant.

As summarized above, construction of the proposed project would impede the use of a native nursery site for nesting migratory birds if the abandoned wharf were removed during the breeding season. Therefore, construction of proposed project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and the impact would be significant.

3.3.5.3.2 Operations

3.3.5.3.2.1 Ferry Terminal

New trees would be required to be planted in the parking lot for the ferry terminal per Redwood City Zoning Code requirements (Section 30.18) and for a landscaped buffer between the project site and the CEMEX property to the south. These and other ornamental trees planted as part of the project site landscaping would have the potential to shelter nesting birds. While birds are expected to nest and forage in the terminal project area in greater abundance after project construction is completed due to increased landscaping, as previously discussed, due to the lack of sensitive habitats, the habitats in the project area support only regionally common, urban-adapted breeding birds and support only a very small proportion of these species' regional populations. Further, as discussed in **Section 3.3.5.4**, any tree trimming during maintenance activities would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance. In addition, all native bird species that may nest in the project area are protected from direct take by federal and State statutes, including the FESA and CESAF. Therefore, the trimming of trees in the project area during the nesting bird season would not impede the use of a native nursery site for nesting migratory bird species; the impact would be less than significant.

Operation of the ferry terminal would result in increased boat traffic along the ferry routes, which contains extensive tidal salt marsh habitat along Redwood Creek and small patches of eelgrass along San Francisco Bay and the Oakland Estuary. As discussed in **Section 3.3.5.2.2**, operation of the ferry at the speeds proposed by the proposed project would not have a substantial adverse effect on either of these sensitive natural communities. Furthermore, as discussed in **Section 3.3.5.3.1**, Redwood Creek and Westpoint Slough do not support any breeding special-status species, and aquatic wildlife in these waterways are habituated to vessel disturbance due to the pre-existing frequency of vessels. Thus, operation of the ferry terminal, including maintenance dredging, would not interfere substantially with the movement of any native resident or migratory aquatic wildlife species or with established native resident or migratory

aquatic wildlife corridors, or impede the use of native terrestrial wildlife nursery sites; the impact would be less than significant.

As discussed in **Section 3.3.3.2.3**, the open bay along the proposed ferry routes is heavily used by a wide range of migratory waterbirds, especially during the winter months when wintering migratory waterfowl are present. However, waterbirds along a portion of the proposed ferry routes may already be habituated to disturbance from currently operating ferries. In addition, waterbirds may also be somewhat habituated to disturbance from ships and barges entering and exiting the Port of Redwood City that may travel a similar route as the proposed project, as well as from disturbance from personal vessels operating out of the Port of Redwood City Municipal Marina, Westpoint Harbor, Coyote Point Marina, and Oyster Point Marina, including both motorized boats and non-motorized boats and kayaks. The operation of the proposed ferries would increase the vessel traffic by adding 3 to 4 vessel trips for each of the San Francisco and Oakland routes during peak hours (e.g., 6 to 8 new vessel trips both in the morning and in the evening). This would represent an increase of up to 480 vessels calling on the Port of Redwood City per month. As the ferry service matures, midday, evening, and weekend service may be added, as well as adding up to 15 days of special event service. These added services would further increase the number of vessels calling on the Port. The frequent operation of ferries out of the proposed Redwood City Ferry Terminal would likely cause additional disturbance to waterbirds and avoidance of otherwise suitable foraging habitat; thus, operation of the ferry terminal would interfere substantially with the movement of waterbirds, which would be a significant impact.

Therefore, operation of the ferry terminal would interfere substantially with the movement of native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and the impact would be significant.

3.3.5.3.2.2 Visitor-Serving Uses

Development of the visitor-serving uses would result in the construction of new buildings with glass windows and façades, which may increase the risk of avian mortality due to collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas), when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners), and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. These risks are highest for buildings in or near areas of high avian activity or movement, such as migratory corridors, large open spaces, large water bodies, and riparian habitats.

The project site is located adjacent to a riparian habitat. The project site is within 2 miles of Bedwell Bayfront Park, which supports large numbers of resident and migratory bird species. Avian abundance and diversity at the project site is relatively low due to the existing low-quality habitat that currently exists in the project area and surrounding development. However, due to the project site's location along the edge of San Francisco Bay, moderate numbers of birds move through or past the project area, and it is anticipated that the number of birds visiting the project site would increase as a result of landscaping specifically intended to improve habitat for native birds. Thus, birds using on-site habitats or flying through the area would have the potential to collide with the proposed new buildings.

Bird collision risk can be exacerbated by artificial lighting. As a result of the increase of lighting in the project area relative to baseline conditions, which currently consist of several low lumen and low temperature security lights, some birds moving along the San Francisco Bay at night may be (1) attracted to the project area, where they are more likely to collide with buildings; and/or (2) disoriented by night lighting, potentially causing them to collide with the buildings. Such an impact would be significant due to the high number of birds that could be affected.

Because the details of the façades (e.g., with respect to locations of glass and bird-safe glazing features) and lighting are still being determined, there is the potential for avian collisions to occur frequently enough to interfere substantially with the movement of a native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, which would be a significant impact.

Therefore, operation of the visitor-serving uses may interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and the impact would be significant.

3.3.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The project area does not provide well-defined movement pathways for animals within or through the project area due to the density of development in the project region and the lack of continuous, well-vegetated pathways through the nearby urban areas. Wildlife species may move through the area using cover and refugia as they find them available, and mammals and reptiles may move along the bayshore. However, connectivity along Redwood Creek and Westpoint Slough is interrupted by U.S. 101 and other roads and culverted areas. In addition, the project footprint is not heavily used for movement by non-flying wildlife due to the lack of food and resting sites, and it does not contain any high-quality corridors allowing dispersal of such animals.

Maintenance dredging of Redwood Creek for operation of the proposed project may disturb aquatic native resident or migratory fish; however, this would not be a significant impact as Redwood Creek does not support any breeding special-status species, and aquatic wildlife are habituated to vessel disturbance due to the pre-existing frequency of vessels.

Due to the lack of sensitive habitats, the habitats in the project area support only regionally common, urban-adapted breeding birds and support only a very small proportion of these species' regional populations. Landscaping maintenance activities for the proposed project would be conducted in accordance with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance. Further, all native bird species that may nest in the project area are protected from direct take by federal and State statutes. Therefore, operation of the proposed project would not interfere substantially with the use of a native nursery site for migratory birds; the impact would be less than significant.

The proposed project would construct buildings with glass windows and façades, along with associated night lighting, which would have the potential to result in avian mortality due to collisions with these surfaces. These collisions could occur frequently enough to interfere substantially with the movement of a native resident or migratory wildlife species or with established native resident or migratory wildlife corridors and would be a significant impact.

The frequent operation of ferries out of the proposed Redwood City Ferry Terminal would likely cause additional disturbance to waterbirds and avoidance of otherwise suitable foraging habitat. Thus, the

operation of the proposed project would interfere substantially with the movement of waterbirds; the impact would be significant.

Therefore, operation of the proposed project would interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and the impact would be significant.

3.3.5.3.3 Mitigation Measures

Mitigation Measures MM BIO-1 through MM BIO-5 in **Section 3.3.5.1.3** and Mitigation Measures MM BIO-7 through MM BIO-10 below are proposed to reduce impacts on fish and their habitats and migratory birds during construction and operation.

A Redwood City – San Francisco route was identified in an Implementation and Operations Plan (IOP) prepared in 2002[50] for the expansion of ferry service in the San Francisco Bay Area and evaluated in a 2003 Program EIR.[51] The Port is carrying forward Program EIR Mitigation Measure B-11 (referred to as Mitigation Measure MM BIO-11) to reduce the impacts on waterbirds due to ferry operations.

MM BIO-7: Due to the potential for glazed façades on new buildings constructed by the project, prior to issuance of building permits from Redwood City, the building plans shall demonstrate the inclusion of the following bird-safe building design measures.

- Minimize continuously glazed zones on façades. Break up areas of glazing on façades by non-glazed, articulated features such as louvers, mullions, muntins, fins, solar shades, opaque panels, or other patterning so that the façades of buildings do not overall appear like smooth glazed surfaces. Break up glass surfaces into panels less than 24 square feet in extent.
- Avoid the use of highly reflective glass that will reflect the sky, water, or vegetation. Reflectance between 10 and 20 percent is preferable. Glass that is treated to be "bird-friendly", as described below, shall have a reflectance value no more than 15 percent so that frit or other glazing treatment is readily visible to birds, unless the glazing treatment is on the outside surface and a qualified biologist examines a sample of the glass and confirms that the bird-safe treatment is sufficiently visible.
- Bird-friendly glazing includes, but is not limited to, opaque glass, fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing, or ultraviolet patterns visible to birds. Elements of the bird-safe glazing patterns should be at least 0.25 inch wide at a maximum spacing of 2 inches horizontally and 2 inches vertically, or should be certified by the American Bird Conservancy to have a "threat factor" of no more than 20 for the measure below addressing the primary bird collision zone and no more than 15 for the measure below addressing feature-related hazards.

[50] Water Emergency Transportation Authority (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[51] Water Emergency Transportation Authority (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

- Within the primary bird collision zone (0-60 feet above the ground), no more than 10% of façade surface area shall have non-bird-friendly glazing.
- Avoid or minimize areas where birds will perceive a clear flight path through a solid surface, such as transparent free-standing glass walls, skyways, railings, or building corners. Any such "feature-related hazards" will be 100% treated with bird-friendly glazing.
- Avoid having vegetation inside buildings near glass (e.g., in areas where birds will try to access the vegetation).
- Proposed landscaping should be designed so that birds using such landscaping are not funneled into areas where they are surrounded by glazing. Minimizing vegetation near extensively glazed façades (e.g., having less extensive vegetation, and restricting vegetation to low-growing grasses, forbs, or scattered shrubs as opposed to more extensive shrubs and trees) would be ideal. Vegetation near heavily glazed façades should not include plant species that provide high-quality foraging habitat, such as plants that provide fruits that are frequently eaten by birds.

MM BIO-8: Tree removal, demolition, and the start of construction activities shall be scheduled to avoid the nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.

If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings, and the ground) in and immediately adjacent to the impact areas for migratory bird nests.

MM BIO-9: If an active nest is found within areas that would be disturbed by project activities, the ornithologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

MM BIO-10: If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation.

MM BIO-11: Ferry routes shall be consolidated within common corridors, travel down deeper channels as much as possible, and choose the shortest routes across shallow areas to leave as much undisturbed shallow open-water habitat as possible. (Program EIR Mitigation Measure B-11).[52]

3.3.5.3.4 Significance of Impact After Mitigation

Mitigation Measures MM BIO-1 through BIO-4 (refer to **Section 3.3.5.1.3**) address impacts on migratory fish and their habitats during construction and operation due to in-water construction activities and maintenance dredging.

Mitigation Measure MM BIO-5 for lighting impacts (refer to **Section 3.3.5.1.3**) and Mitigation Measure MM BIO-7 for bird-safe design[53] address avian collision impacts. Mitigation Measures MM BIO-8 through MM BIO-10 address impacts on migratory birds. These measures would ensure that construction activities comply with the MBTA and California Fish and Game Code, and that no nests of migratory birds would be disturbed during construction. Mitigation Measure MM BIO-11 would reduce impacts on waterbirds due to ferry operations as part of the overall consolidation of ferry routes within common corridors in the Bay.

Mitigation Measures MM BIO-1 through MM BI0-5 and MM BIO-7 through MM BIO-11 would reduce the potential for construction and operation of the proposed project to interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites to less than significant levels.

3.3.5.4 Impact 3.3-4

Impact 3.3-4: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

3.3.5.4.1 Construction

3.3.5.4.1.1 Ferry Terminal

Tree protection policies are the applicable local policies or ordinances protecting biological resources. During construction of the ferry terminal, ornamental trees would be removed for widening of the Seaport Boulevard loop road and development of the project site access road. This consists of ornamental trees that were installed with development of the Pacific Shores Center in the 1990s. While these trees are not expected to be heritage trees, as described in **Section 3.3.3.1.3**, the Parks and Recreation Commission may declare any tree as a heritage tree if certain requirements defined in Redwood City Municipal Code Section 35.2 are met. If any trees are subsequently declared heritage trees, prior to the start of construction, the construction contractor would be required to obtain a permit from the City's Parks, Recreation, and Community Services Department. Regardless of whether any of the trees meet the definition of a "heritage" tree, all tree disturbance and removal activities for construction of the ferry terminal would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City

[52] Water Emergency Transportation Authority (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[53] San Francisco Planning Department. 2011. Standards for Bird-Safe Buildings. Available: https://sfplanning.org/sites/default/files/documents/reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf.

Street Tree Ordinance (Ordinance No. 1010, Section 1), and Redwood City Tree Preservation Ordinance (Ordinance No. 1536, Section 1, 6-26-72). Therefore, construction of the ferry terminal would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.1.2 Visitor-Serving Uses

The visitor-serving uses would primarily be constructed within a portion of the project site that is currently devoid of trees. However, should any trees be installed as part of the ferry terminal landscaping that would later require removal and/or if any trees require removal or disturbance for establishing utilities connections, a permit from the City's Parks, Recreation, and Community Services Department would be required for the removal of any trees which meet the definition of "heritage" tree (as discussed for the ferry terminal above). Further, all tree disturbance and removal activities for construction of the visitor-serving uses would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance. Therefore, construction of the visitor-serving uses would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Ornamental trees would be removed for construction of the proposed project, primarily for the widening of Seaport Boulevard. A permit from the City's Parks, Recreation, and Community Services Department would be required for the removal of any trees which meet the definition of "heritage" tree. All tree disturbance and removal for the proposed project would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance, which would avoid any potential impacts due to conflicts with the City's Tree Preservation Ordinance. Therefore, construction of the proposed project would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.2 Operations

3.3.5.4.2.1 Ferry Terminal

New trees would be required to be planted in the parking lot for the ferry terminal per Redwood City Zoning Code requirements (Section 30.18). Landscaping for the ferry terminal component would include ornamental trees, including a new buffer that would be established between the project site and the CEMEX property to the south. All trees planted on the property would be installed and irrigated in accordance with the City's Engineering Standards (Volume II: Standard Details, Section Z). Operation of the ferry terminal would include maintenance landscaping efforts such as scheduled tree trimming. All tree maintenance would be conducted in compliance with Redwood City Municipal Code Article VI (Planting and Care of Trees and Other Vegetation on Public Streets). Therefore, operation of the ferry terminal would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.2.2 Visitor-Serving Uses

Similar to the ferry terminal, any trees planted on the project site for the visitor-serving uses would be installed and irrigated in accordance with the City's Engineering Standards. All tree maintenance would be conducted in compliance with Redwood City Municipal Code Article VI and in accordance with permits issued by the Park Superintendent. Therefore, operation of the visitor-serving uses would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

All trees planted as part of the proposed project would be installed and irrigated in accordance with the City's Engineering Standards. All tree maintenance would be conducted in compliance with Redwood City Municipal Code Article VI and in accordance with permits issued by the Park Superintendent. Therefore, operation of the proposed project would not conflict with any local policies or ordinances protecting biological resources; there would be no impact.

3.3.5.4.3 Mitigation Measures

No mitigation is required for construction or operations.

3.3.5.4.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.3.5.5 Impact 3.3-5

Impact 3.3-5: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

The San Bruno Mountain Habitat Conservation Plan is the only Habitat Conservation Plan that has been approved in San Mateo County, but this plan does not cover the project area or the surrounding vicinity. No Natural Community Conservation Plans have been approved or are in preparation in San Mateo County. Therefore, the proposed project would not conflict with any adopted Habitat Conservation Plans or Natural Community Conservation Plans, or with any other approved local, regional, or State habitat conservation plans. There would be no impact.

3.3.5.5.1 Mitigation Measures

No mitigation is required for construction or operations.

3.3.5.5.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.3.5.6 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic context for assessing cumulative environmental impacts associated with biological resources includes the City, the Port, the waters of Lower San Francisco Bay, and San Mateo County. The cumulative impact analysis considers the anticipated population growth within the City and region, which would result in the construction of new development. Projects which are already anticipated to occur

within the vicinity of the proposed project include Mission Bay Ferry Landing Project, proposed Berkeley Pier/Ferry Project, and the Oakland Harbor Turning Basins Widening Navigation Study, which all would increase vessel activity and/or the size of vessels operating in the ferry routes; proposed residential development projects at 1548 Maple Street, 505 East Bayshore Road, and 557 East Bayshore Road; the proposed office/R&D project at 800-3400 Bridge Parkway in Redwood City; the flood protection and restoration project South San Francisco Bay Shoreline Project and proposed flood protection/restoration project Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francsico Bay (SAFER Bay) in East Palo Alto, Menlo Park, and Redwood City; the proposed restoration projects Beneficial Reuse of Excavated Material in Tidal Marsh Restoration Project (Beneficial Reuse Project), and Calabazas/San Tomas Aquino Creek-Marsh Connection Project. The cumulative impacts analysis evaluates whether the growth projected to occur in the future (including the above mentioned projects), along with the currently proposed project, would result in significant cumulative impacts related to: any species identified as a candidate, sensitive, or special-status species; riparian habitat or other sensitive natural community; State or federally protected wetlands; the movement of any native resident or migratory fish or wildlife species, or with their established wildlife corridors, or native wildlife nursery sites; protected trees; or conflicts with adopted local, regional, or State habitat conservation plans.

As discussed under Impact 3.3-1 above, the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on species, prior to mitigation. Construction of the proposed project would result in significant impacts related to special-status species, including fish species and EFH, marsh-breeding species, and seals and sea lions. Operations of the proposed project would result in significant impacts related to special-status species, including fish and EFH, seals and sea lions, and increased lighting. In-water construction impacts, including installation of the pier float and piles and construction dredging, could increase turbidity in the Redwood Creek channel and result in an increase in underwater noise. Operational activities include maintenance dredging, which can also increase turbidity and reduce water quality, thereby impacting EFH. These effects are temporary and localized and, with implementation of Mitigation Measures MM BIO-1 through MM BIO-5, significant impacts to special-status species during construction and operations would be reduced to less than significant. Therefore, with implementation of mitigation, the proposed project would not have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Future growth coupled with the proposed project could result in cumulative impacts on the same habitat types and species that would be affected by the proposed project. However, future projects will all be subject to conditions of their project approvals (e.g., CEQA mitigation measures and the approving agency's conditions of approval) as well as the conditions of any applicable regulatory agency permits, to avoid, minimize, and mitigate impacts on these resources, thus reducing cumulative impacts. Furthermore,

SAFER Bay,[54] South San Francisco Bay Shoreline Project,[55] Beneficial Reuse Project,[56] and Calabazas/San Tomas Aquino Creek-Marsh Connection Project[57] incorporate substantial restoration and enhancement components that would further reduce cumulative impacts. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to special-status species. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed under Impact 3.3-2 above, the proposed project would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; or on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, prior to mitigation. In-water construction activities and operation of the ferry terminal's in-water components would result in shading impacts to tidal salt marsh and the loss of open water/tidal aquatic habitats, resulting in significant impacts related to riparian habitat or other sensitive natural communities. Removal of the Shell Unloading Wharf, if done within one year of construction of the in-water ferry terminal infrastructure, would compensate for the shading impacts to tidal aquatic habitat and the loss of open water/tidal aquatic habitat. Salt marsh vegetation colonizes very quickly when light and hydrological conditions are appropriate, so salt marsh vegetation would begin to establish in suitable areas within a year of removing the wharf. If removal of the wharf does not occur within one year, impacts of shading from this infrastructure would be significant. Implementation of Mitigation Measure MM BIO-6 would reduce these impacts to less than significant levels. Therefore, with implementation of mitigation, the proposed project would not result in significant impacts on riparian habitats or other sensitive natural communities. Future growth in or near riparian habitats or other sensitive natural communities in the geographic scope of this cumulative impact analysis may lead to the temporary or permanent loss of these habitats, which would be a significant impact. However, as previously discussed, future projects will all be subject to conditions of their project approvals, including CEQA mitigation measures, as well as the conditions of any applicable regulatory agency permits, to avoid, minimize, and mitigate impacts on these resources, thus reducing cumulative impacts. Additionally, the Beneficial Reuse Project would restore tidal marsh habitat, further reducing cumulative impacts associated with future growth. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to riparian habitat or other sensitive natural communities. The proposed project's contribution to an individual effect would not be cumulatively considerable.

[54] San Francisquito Creek Joint Powers Authority. November 19, 2024. The SAFER Bay Project: Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco Bay webpage. Available: https://www.sfcjpa.org/safer-bay-project. Accessed September 5, 2025.

[55] U.S. Army Corps of Engineers, San Francisco District. 2024. South San Francisco Bay Shoreline Study webpage. Available: https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current-Projects/South-San-Francisco-Bay-Shoreline-Study/. Accessed September 5, 2025.

[56] Valley Transportation Authority. Beneficial Reuse of Excavated Material in Tidal Marsh Restoration Project webpage. Available: https://www.vta.org/projects/vta-beneficial-reuse-project. Accessed September 5, 2025.

[57] Valley Water. Calabazas/San Tomas Aquino Creek-Marsh Connection Project webpage. Available: https://www.valleywater.org/project-updates/calabazas-san-tomas-aquino-creek-marsh-connection-project. Accessed September 5, 2025.

As also discussed under Impact 3.3-2, the proposed project would have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; or on State or federally protected wetlands from dredging, prior to mitigation. Dredging of the Redwood Creek channel to construct the ferry terminal and maintenance dredging during operations of the proposed project would result in water quality impacts on open water/tidal aquatic habitat, including State or federally protected wetlands. Compliance with permit requirements from DMMO agencies would reduce potential dredging-related water quality impacts to open water. However, direct and indirect impacts on open water/aquatic habitats would be significant due to the loss of sensitive habitats that have occurred regionally and the proportionately high ecological value of these habitats. Mitigation Measures MM BIO-2, MM BIO-3, and MM BIO-4 reduce impacts on open water/tidal aquatic habitat, including State and federally protected wetlands. Therefore, with implementation of Mitigation Measures MM BIO-2, MM BIO-3, and MM BIO-4, the proposed project would not result in significant impacts to sensitive natural communities. Future growth in or near open water/tidal aquatic habitat and State or federally protected wetlands in the geographic scope of this cumulative impact analysis may require in-water construction activities, which may result in significant impacts on these areas. Any future dredging activities would be conducted in conformance with the Statewide General Construction Permit, applicable NPDES permit (the Phase II Small MS4 permit or San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit), and DMMO agency requirements to reduce potential dredging-related water quality impacts to open water. Additionally, as previously discussed, future projects will all be subject to conditions of their project approvals, including CEQA mitigation measures, as well as the conditions of any applicable regulatory agency permits, to avoid, minimize, and mitigate impacts on these resources, thus reducing cumulative impacts. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to State or federally protected wetlands. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed under Impact 3.3-3 above, the proposed project would interfere substantially with the movement of native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, prior to mitigation. Removal of the Shell Unloading Wharf during the avian breeding season for cliff swallows could result in the loss of eggs or nestlings. This would result in significant impacts. Mitigation Measure MM BIO-8 would require construction activities to be scheduled to avoid the nesting season if possible and if it is not possible, preconstruction surveys conducted by an ornithologist and the removal of potential nesting substrates prior to the start of nesting season would be required. During operations of the proposed project, migratory birds may collide with the glass windows and facades of project buildings, resulting in significant impacts. Mitigation Measure MM BIO-7 would implement bird-friendly building design, which includes minimizing vegetation near glazed facades and bird-friendly glass glazing. The frequent operation of ferries out of the proposed Redwood City Ferry Terminal would likely cause additional disturbance to waterbirds and avoidance of otherwise suitable foraging habitat, which would be a significant impact. Mitigation Measure MM BIO-11 would reduce the potential for operation of the proposed project to interfere substantially with waterbirds and their habitats. In-water construction activities, including a small amount of dredging from the channel to the ferry terminal and at the ferry berth, has the potential

to impact EFH and therefore impact migratory fish, resulting in significant impacts. Maintenance dredging activities during operations may also disturb aquatic native resident or migratory fish, which would be a significant impact. Mitigation Measures MM BIO-1 through MM BIO-5 would reduce impacts on fish and EFH during construction and operation. Therefore, with implementation of mitigation, the proposed project would not result in a significant impact to the movement of native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Future development in the geographic scope of this cumulative impact analysis may be constructed during the nesting season, which would result in significant impacts. Future growth adjacent to the Bay may require in-water construction activities, which could disturb EFH, resulting in significant impacts. Additionally, future development may be designed with glass windows and facades, which would result in bird collisions, resulting in significant impacts. However, as previously discussed, future projects will all be subject to conditions of their project approvals, including CEQA mitigation measures, as well as the conditions of any applicable regulatory agency permits (such as local tree preservation ordinances and the Migratory Bird Treaty Act), to avoid, minimize, and mitigate impacts on these resources, thus reducing cumulative impacts. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed under Impact 3.3-4, above, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The proposed project would result in the removal of ornamental trees during construction and tree trimming during operations. Impacted trees may meet the definition of a "heritage tree" as defined by Redwood City Municipal Code Section 35.2. However, all tree removals for the proposed project would comply with Redwood City Municipal Code Section 35.2, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance, which would avoid any potential impacts due to conflicts with the City's Tree Preservation Ordinance. All tree maintenance would be conducted in compliance with Redwood City Municipal Code Article VI. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Future growth in the geographic scope of this cumulative impact analysis may require tree removal and tree trimming activities. Any tree trimming or removal in the City would be required to adhere to Redwood City Municipal Code Section 35.2 and Article VI, as well as the Redwood City Street Tree Ordinance and Redwood City Tree Preservation Ordinance. Tree trimming and removal activities outside of the City would be subject to and comply with local tree preservation ordinances. Adherence to regulatory requirements pertaining to tree trimming and removal would minimize impacts to trees. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to the conflicts with local policies and ordinances protecting biological resources. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed under Impact 3.3-4, above, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. No Natural Community Conservation Plans have been

approved or are in preparation in San Mateo County. Therefore, the proposed project would not conflict with any adopted Habitat Conservation Plans or Natural Community Conservation Plans, or with any other approved local, regional, or State habitat conservation plans, and would have no impact. Future growth and development within the geographic scope of this cumulative impact analysis would not result in a conflict with any habitat conservation plans, and no cumulative impact would occur. The proposed project's contributions to an individual effect would not be cumulatively considerable.

3.3.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to biological resources associated with construction and operation of the proposed project.

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Section 3.4
Cultural Resources and Tribal Cultural Resources

3.4.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to historic and archaeological resources and tribal cultural resources (also referred to herein as "TCRs"). It evaluates impacts from construction and operation of the proposed project. The section also includes discussion of tribal consultation completed in accordance with the requirements of Assembly Bill (AB) 52. The analysis is based on a Cultural Resources Assessment Report prepared by Basin Research Associates in December 2024 and the results of the AB 52 process. The Cultural Resources Assessment report, which provides an evaluation of cultural resources and TCRs at and near the project site and an assessment of the proposed project's potential effects on those resources, is a confidential appendix to the EIR (Appendix D [Confidential]). The results of the Cultural Resources Assessment are summarized in this evaluation. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.4.2 Methodology

3.4.2.1 Archaeological Resources and the Built Environment

A Cultural Resources Assessment was conducted to review the existing prehistoric and historic archaeological resources and the built environment of the project site to determine if historic properties and/or unique archaeological resources could be affected by construction and operation of the proposed project.

A prehistoric and historic site record and literature search was completed by the California Historical Resources Information System, Northwest Information Center (CHRIS/NWIC), Sonoma State University, Rohnert Park on November 29, 2023. In addition, reference material from the Bancroft Library, University of California, Berkeley and Basin Research Associates, San Leandro, was also consulted. Sources included:

- National Register of Historic Places (NRHP) listings for San Mateo County, California;[1]
- California Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD) for San Mateo County (includes National Historical Landmarks, NRHP, Federal (Agency Nominations, California Register of Historical Resources (CRHR), California Historical Landmarks, and California Points of Historical Interest listings);[2]

[1] U.S. Department of the Interior, National Park Service. National Register of Historic Places. 2024. Spreadsheet of NRHP Listed Properties (listings up to 7/10/2024). Available: https://www.nps.gov/subjects/nationalregister/data-downloads.htm.

[2] California Office of Historic Preservation. 2024. Built Environment Resource Directory (BERD) for San Mateo County. Available: https://ohp.parks.ca.gov/?page_id=30338.

- California Historical Resources with the most recent updates of the NRHP; California Historical Landmarks; and, California Points of Historical Interest, as well as other evaluations of properties reviewed by the State of California Office of Historic Preservation;[3] and
- Other regional/local reports, lists, and maps as identified in the confidential Cultural Resources Assessment report (Appendix D [Confidential]).

Historic photographs, plans, and other documentation were reviewed and a site visit was conducted to review the project site for historical resources.

An archaeological field inventory of the project site was not conducted due to its location within a former tidal marsh that had been filled for development use early in the 20th century. No native soil is available for observation as the project site is currently used for aggregate recycling and stockpiling. Other improved areas are in hardscape.

3.4.2.1.1 Area of Potential Effects

The Area of Potential Effects (APE) for archaeological resources includes the area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, should any be present within the APE. The horizontal APE consists of the proposed construction within the project site's footprint as well as the proposed future improvements. The vertical APE includes surface preparation for raising the site elevation of the project area, installation of subsurface infrastructure to support the ferry terminal, and other proposed facilities including piles to support future buildings. Vertical depths are generally estimated as extending up to 10 feet below the existing grade. The vertical APE is assumed to extend into known historic fill (e.g., 2-10 feet thick) followed by Holocene Age Bay Mud 25-45 feet thick.[4]

3.4.2.2 Tribal Cultural Resources

Within the CEQA context, it is important to understand the distinction and relationship between archaeological resources and TCRs. TCRs are defined in Public Resources Code (PRC) Section 21074(a) as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either included or eligible for inclusion in the CHRIS, or included in a local historic resources register, or that the lead agency determines to be significant pursuant to PRC Section 5024.1. Archaeological resources, by contrast, are identified through an archaeological analysis using standard archaeological techniques. A unique archaeological resource as defined in subdivision (g) of PRC Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of PRC Section 21083.2, may also be a tribal cultural resource if it conforms with the criteria of PRC Section 21074(a).

In some cases, the archaeological resources on a given site will be related to California Native American Tribes, in which case the resources may be considered a TCR as well if the resources conform with the above definition of TCRs. In any event, however, significant archaeological resources must be assessed and mitigated pursuant to the standards and rules set forth in the California Code of Regulations (CCR), Title 14 (CEQA Guidelines), including CEQA Guidelines Section 15126.4. The standards and rules differ

[3] California Office of Historic Preservation. 2025. California Historical Resources – San Mateo County. Available: https://ohp.parks.ca.gov/ListedResources/?view=county&criteria=41. Accessed February 6, 2025.

[4] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

somewhat from those that apply to TCRs. Because TCRs and archaeological resources are treated slightly differently under CEQA, this evaluation includes a separate analysis for each. The same physical resource may qualify as both an archaeological resource and TCR. (PRC Section 21074(c)).

A Sacred Lands File records search for the project site was requested from the NAHC to determine whether any Native American cultural resources in the NAHC database were located within the project area or within a half-mile radius. A Sacred Lands File records search is one tool a lead agency can use to determine whether TCRs may exist within the vicinity of a project. The results of the Sacred Lands File records search are discussed in **Section 3.4.3.2.2** below.

As discussed in **Section 3.4.3.1.2** below, AB 52 establishes a consultation process between California Native American tribal governments and lead agencies applicable to any project for which a NOP, Notice of Intent to Adopt a Mitigated Negative Declaration, or Notice of Intent to Adopt a Negative Declaration is filed on or after July 1, 2015. The Port sent letters to representatives of the seven Native American tribes identified by the NAHC as being culturally affiliated to the project area. As discussed in **Section 3.4.3.2.3**, no formal requests for consultation were received during the 30-day consultation window and the AB 52 process was concluded.

3.4.3 Existing Conditions

3.4.3.1 Regulatory Setting

3.4.3.1.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the NRHP (also known as the "National Register") as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[5] The National Register recognizes properties that are significant at the national, state, and/or local levels. To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. The National Register has established four Criteria for Evaluation to determine the significance of a resource:

- It is associated with events that have made a significant contribution to the broad patterns of our history;
- It is associated with the lives of persons significant in our past;
- It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- It yields, or may be likely to yield, information important in prehistory or history.[6]

[5] 36 Code of Federal Regulations, Section 60.2.
[6] 36 Code of Federal Regulations, Section 60.4.

Additionally, the formal criteria (36 Code of Federal Regulations (CFR) Section 60.4) require a historical resource to be at least 50 years old. However, the National Register does not prohibit the consideration of properties less than 50 years in age whose exceptional contribution to the development of American history, architecture, archaeology, engineering, and culture can clearly be demonstrated. In addition to meeting the Criteria for Evaluation, a property must have integrity. "Integrity is the ability of a property to convey its significance."[7] According to National Register Bulletin 15, the National Register recognizes seven aspects or qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

To retain historic integrity, a property will always possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.[8]

In assessing a property's integrity, the National Register criteria recognizes that properties change over time; therefore, it is not necessary for a property to retain all of its historic physical features or characteristics. The property must retain, however, the essential physical features that enable it to convey its historic identity.[9]

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is the federal law which provides for the protection and return of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA acknowledges that human remains and other cultural items removed from Federal or tribal lands belong, in the first instance, to lineal descendants, Indian Tribes, and Native Hawaiian organizations.[10] The NAGPRA establishes protection for human remains or cultural items on Federal or tribal land.

Secretary of the Interior's Standards for Treatment of Historic Properties

The purpose of the Secretary of the Interior's Standards for Treatment of Historic Properties, as codified in 36 CFR 68, is to provide guidance to historic building owners, building managers, preservation consultants, architects, contractors, and project reviewers prior to beginning work on historic buildings.[11] The Standards address four treatments of historic properties: preservation, rehabilitation, restoration, and reconstruction. Selection of the appropriate treatment for a building depends on the building's level of historic significance, physical condition, proposed use, and code and other regulations.

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[7] U.S. Department of the Interior, National Park Service. 1995. National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation. p. 44. Available: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

[8] U.S. Department of the Interior, National Park Service. 1995. National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation. p. 44. Available: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

[9] "A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property's historic character… Because feeling and association depend on individual perceptions, their retention *alone* is never sufficient to support eligibility of a property for the National Register." U.S. Department of the Interior, National Park Service. 1995. National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation. p. 45. Available: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

[10] U.S. Department of the Interior, National Park Service. Native American Graves Protection and Repatriation Act webpage. Available: https://www.nps.gov/subjects/nagpra/index.htm. Accessed March 6, 2025.

[11] U.S. Department of the Interior, National Park Service. The Secretary of the Interior's Standards for the Treatment of Historic Properties webpage. Available: https://www.nps.gov/orgs/1739/secretary-standards-treatment-historic-properties.htm. Accessed March 6, 2025.

- Preservation: Defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.
- Rehabilitation: Defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The Standards for Rehabilitation acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.
- Restoration: Defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The Standards for Restoration allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.
- Reconstruction: Defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. The Standards for Reconstruction establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

3.4.3.1.2 State

California Environmental Quality Act

Public agencies under CEQA must consider the effects of a proposed project on both "historical resources" and "unique archaeological resources." Pursuant to California Public Resources Code (PRC) Section 21084.1 and CEQA Guidelines Section 15064.5(b), a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." PRC Section 21083.2(a) requires agencies to determine whether a proposed project would have a significant effect on "unique" archaeological resources.

A historical resource (see PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)) includes a resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined to be eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. (PRC Section 5024.1(d)).

Properties of local historic significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and CEQA Guidelines Section 15064.5(a)(2)). Unless a resource listed in a survey has been demolished or its significance has been materially impaired, or there is a preponderance of evidence indicating that it is otherwise not historically or culturally significant, a lead agency should consider the resource a historical resource under CEQA (CEQA Guidelines Section 15064.5(b)(2)(B)).

In addition to resources listed on the CRHR or included in a local register of historical resources as defined by PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g), the lead agency has discretion to treat an object, building, structure, site, area, place, record, or manuscript as a historical resource for CEQA purposes if the lead agency has substantial evidence showing that such a resource is historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)(3)). Generally, a lead agency considers a resource to be "historically significant" if the resource meets the criteria for listing on the CRHR, including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
- Has yielded, or may be likely to yield, information important in prehistory or history. (CEQA Guidelines Section 15064.5(a)(3)).

The fact that a resource is not listed or determined to be eligible for listing in the CRHR, or not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey meeting the criteria in PRC Section 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource (PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)(4)).

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described above, and "unique archaeological resources." Impacts to archaeological resources are considered significant only if the archaeological resources are unique. (PRC Section 21083.2(a).) Under CEQA, an archaeological resource is considered "unique" if it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2(g)).

CEQA states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (PRC Section 21084.1). A "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). The significance of a historical resource is materially impaired when the project would

demolish or materially alter, in an adverse manner, those physical characteristics of the resource that convey its historical or cultural significance or that justify its eligibility for inclusion in the state or local historic register. (CEQA Guidelines Section 15064.5(b)(2)).

The CEQA Guidelines (Section 15064.5(c)) also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological resource. If the site is not a historical resource, but meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of PRC Section 21083.2. PRC Section 21083.2 states that if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to:

- Planning construction to avoid archaeological sites
- Deeding archaeological sites into permanent conservation easements
- Capping or covering archaeological sites with a layer of soil before building on the sites
- Planning parks, greenspace, or other open space to incorporate archaeological sites (PRC Section 21083.2(b))

When an archaeological resource is listed in or is eligible to be listed in the CRHR, PRC Section 21084.1 controls, and it states that "[a] project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis.

Assembly Bill 52

AB 52 provides protections for TCRs. All lead agencies issuing a notice of preparation or a notice of negative declaration or mitigated negative declaration on or after July 1, 2015, are required, if formally requested by a culturally affiliated California Native American tribe, to consult with such tribe regarding the impacts of a project on TCRs prior to the release of any negative declaration, mitigated negative declaration or draft environmental impact report. (PRC Section 21080.3.1(b)). Under PRC Section 21074, TCRs include sites, features, places, cultural landscapes, sacred places, or objects that are of cultural value to a California Native American tribe that are eligible or listed on the CRHR or a local historic register or that the lead agency has determined to be a significant TCR.

Tribal consultation is to continue until mitigation measures are agreed to or either the tribe or the lead agency concludes in good faith that an agreement cannot be reached. (PRC Section 21080.3.2(b)). In the case of agreement, the lead agency is required to include the mitigation measures in the environmental document along with the related Mitigation Monitoring and Reporting Program (MMRP). (PRC Section 21082.3(a)). If no agreement is reached, the lead agency must still impose all feasible mitigation measures necessary for a project to avoid or minimize significant adverse impacts on TCRs (PRC Section 21084.3).

State Requirements Associated with Unanticipated Discovery of Human Remains

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code which requires that in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbances must cease and the county coroner must be notified. Sections 5097.94 and 5097.98 of the PRC identify a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. If the Coroner determines that the remains are or appear to be of a Native American, he/she shall contact the NAHC for further investigations and proper recovery of such remains, if necessary in compliance with the requirements of PRC Section 5097.98.

California Native American Graves Protection and Repatriation Act

AB 978, also known as the California Native American Graves Protection and Repatriation Act (CalNAGPRA) of 2001, requires all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items to provide a process for the identification and repatriation of these items to the appropriate tribes. The intent of the legislation was to cover gaps in the federal NAGPRA specific to the state of California.[12] The NAHC has oversight authority. On September 25, 2020, Governor Newson signed AB-275 into law, which amended CalNAGPRA by adding additional NAHC responsibilities, including maintaining a list of California Indian tribes and their state aboriginal territories (pursuant to Section 8013(a) of the Health and Safety Code), adopting mediation procedures, and publishing notices of completion of preliminary inventories and summaries on the NAHC website.

3.4.3.1.3 Regional/Local

City of Redwood City General Plan

The City's General Plan's Built Environment Element sets forth the policy framework to shape the physical environment of Redwood City through comprehensive guidance on urban form and land use, circulation, economic development, historic resources, and infrastructure. The Built Environment Element of the General Plan contains the following goals, policies, and implementation programs related to historic resources:[13]

- **Policy BE-36.7:** Create a sense of place by enhancing educational, cultural, and environmental resources to attract employers.
- **Goal BE-37:** Identify, study, and document historic resources.
- **Policy BE-37.3:** Continue to maintain the Historic Resources Inventory in a digital format that can be easily updated and tracked.
- **Goal BE-38:** Protect, preserve, restore, rehabilitate, and/or enhance historic resources.

[12] State of California, Native American Heritage Commission. CalNAGPRA webpage. Available: https://nahc.ca.gov/calnagpra/. Accessed March 6, 2025.

[13] City of Redwood City. October 11, 2010. Redwood City General Plan, Built Environment Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

- **Policy BE-38.2:** Preserve historic landmark structures, landscapes (including trees), trails, and sites that serve additional community needs, such as recreational open space and/or cultural needs.
- **Policy BE-39.2:** Foster civic and neighborhood pride and a sense of identity based on the recognition and use of historical and cultural resources.
- **Implementation Program BE-106:** Cultural Resources Management Plan. Continue application of the Cultural Resources Management Plan, in compliance with the applicable California Environmental Quality Act regulations, for all historic sites that have a potential for the on-site discovery, reconnaissance, and identification of cultural resources.

City of Redwood City Historic Preservation Ordinance

The City of Redwood City's Historic Preservation Ordinance[14] provides for the identification, protection, enhancement, perpetuation, and use of improvements, buildings, structures, signs, objects, features, sites, places, and areas within the City that reflect special elements of the City's historic, architectural, cultural, aesthetic, and other heritage. The Planning Commission is the official authority for administration of the Ordinance and has the power to establish criteria for, conduct, and keep a current comprehensive survey and register of historic and cultural resources within the boundaries of the City. An improvement may be designated a historic landmark or historic site if it meets the following criteria established by Section 40.6 of the Redwood City Municipal Code:

- It exemplifies or reflects special elements of the City's cultural, aesthetic or architectural history; or
- It is identified with persons or events significant in local, State or national history; or
- It embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
- It is representative of the notable work of a builder, designer or architect.

The City of Redwood City Cultural Resources Management Plan

The City of Redwood City Cultural Resources Management Plan[15] requires the developer to prepare a cultural resources plan, in compliance with the applicable CEQA regulations, for all historic sites which have a potential for the on-site discovery, reconnaissance, and identification of cultural resources. If preparation of a cultural resources plan is required for a project, the cultural resources plan should include historical and archaeological background research applicable to the project site, analysis of cultural impact of the proposed development to the site, and preservation measures.

3.4.3.2 Environmental Setting

3.4.3.2.1 Summary Context

The baseline for characterizing the existing cultural resources and TCRs setting is May 2024 when the NOP/Initial Study (IS) was published. The project area is located within former tidal marsh adjacent to San Francisco Bay at the confluence of Redwood Creek and Westpoint Slough that was later filled for

[14] City of Redwood City. Municipal Code, Chapter 40, Ordinance. No. 1815. Historic Preservation Ordinance of the City of Redwood City. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH40HIPR.

[15] City of Redwood City, Community Development Services Department. No Date. The City of Redwood City Cultural Resources Management Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/2006/635731673646030000.

development. The area would have provided a favorable environment for prehistoric use with fresh water supplied by Redwood Creek and a variety of ecological niches available for resource exploitation both on the bay margin (e.g., shellfish, fish, waterfowl, Tule) and inland (e.g., acorns, seeds, game and raw materials including stone for tools). Historic dredging of the creeks adjacent to the project site removed a small island that once existed in Redwood Creek at the confluence of Westpoint Slough and widened Redwood Creek. In the 1920s, the drainages around the project area were diked and the surrounding marshes drained with fill from dredging operations placed in and around the project site. The historic fill is 2-10 feet thick followed by Holocene Age Bay Mud 25-45 feet thick over Holocene alluvium of an unknown depth.[16]

3.4.3.2.1.1 Prehistory

Cultural resources are traces of human occupation and activity. In northern California, cultural resources extend back in time for at least 9,000-11,500 years with Native American occupation and use of the San Mateo County extending over 5,000-8,000 years and possibly longer. In general, the project area appears to have been favorably situated for aboriginal occupation with the areas adjacent to flowing or seasonal water a focus for Native American activities. The project area would have provided a favorable environment during the prehistoric period with riverine, riparian and inland resources readily available and the bayshore in relatively close proximity. Settlements in the general area appear to have been selected for relative accessibility, protection from seasonal flooding, and proximity to a diversified resource base. Archaeological information for the general Bay Area suggests a slow steady increase in the prehistoric population over time with an increasing focus on permanent settlements with large populations in later periods. This change from hunter-collectors to an increased sedentary lifestyle is due to more efficient resource procurement as well as a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasing complex social and political systems including long-distance trade networks.

Prehistoric site types recorded in San Mateo County include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites, and trails. Archaeological research in the region has been interpreted using several chronological schemes based on stratigraphic differences and the presence of various cultural traits.

3.4.3.2.1.2 Ethnographic

The aboriginal inhabitants of the region belonged to a group known as the Costanoans (from the Spanish Costanos or "coastal people") who occupied the area from the central California coast inland to the approximate boundary of the Mount Diablo Range. Their descendants now generally prefer the term Ohlone. The project area is within the Ramaytush subdivision of the Ohlone, which included much of present day San Mateo and San Francisco counties. Within the Ramaytush area, the population was further divided into tribelets which were defined by physiographic features. Each tribelet usually had one or more permanent villages surrounded by a number of temporary camps used to exploit seasonally available floral and faunal resources. The general project area was probably near the primary settlement

[16] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

of the lamsin (Las Pulgas) tribelet, also known as the Lamchin (San Carlos Area). The Lamchin tribelet occupied the bayshore and interior valleys from Belmont through Redwood City, along the bay front between Redwood City and Atherton. The main village appears to have been Cachanigtac (Cachanihtac, Las Pulgas, "The Fleas") located north of Redwood Creek, probably along Pulgas Creek in San Carlos.

3.4.3.2.1.3 Historic Period

The history of the San Mateo peninsula can be divided into the Hispanic Period (Spanish 1769-1821 and Mexican 1822-1848), and the American Period (1848-onward). The American Period focused on development and growth - a pattern that continues in the 21st Century.

Hispanic Period

Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the San Francisco Peninsula. The first expedition, that of Gaspar de Portola and Father Juan Crespi in 1769, traveled up the coast and in fall 1769, they first sighted San Francisco Bay from nearby Sweeney Ridge on the peninsula. This party missed the Redwood City study area. The second Hispanic exploring party, that of Fernando Javier Rivera and Father Francisco Palou, reached the San Francisco Peninsula in late 1774. The same route was followed by Heceta in 1775. In 1776, Colonel Juan Bautista de Anza and Father Pedro Font traveled from Monterey to San Francisco to select the settlement sites. The Juan Bautista de Anza National Historic Trail [1776] places the northward route as along present-day El Camino Real/State Route 82 and their return along Skyline Boulevard. None of the expedition camps were located in or near Redwood City.

The proposed project is located in ungranted rancho lands. The boundary of former Rancho Las Pulgas was approximately 1.9 miles south of the project site. During the Hispanic Period, Redwood Creek was known as los palos colorados after the abundant and notable redwood trees in the area. No known Hispanic era structures or features are known to have been present in or adjacent to the project area.

American Period

In the mid-19th century, most of the rancho and pueblo lands were subdivided as a result of population growth, the American takeover, and the confirmation of property titles. The initial population explosion on the Peninsula was associated with the Gold Rush (1848), followed by the construction of the transcontinental railroad (1869). Still later, European immigration and ranching/farming including the development of a prosperous dairy industry had an impact on population growth in the area. Until about World War II, San Mateo County land use was predominantly agricultural or rural.

San Mateo County was created in 1856 from the southern part of San Francisco County and enlarged by annexing part of Santa Cruz County in 1868. Redwood City was platted as "Mezesville" in 1854. The initial "Redwood City" post office was established in October 1852 with "City" added in September 1856.

In the late 1840s and into the 1850s, the Redwood City area was linked to San Francisco by water. After the discovery of Redwoods Landing in 1850, the natural advantages of Redwood Creek and slough dominated the region and facilitated regional and local growth as well as transport. The Embarcadero, located at the intersection of present day Broadway and Main, was a hub of activity during the Gold Rush with many industries located in the tidelands fronting Redwood Creek. Fishing and fish packing companies operated from Greco Island to the northeast of the project site as well as Steinberger Slough by 1905. Solar sea salt harvesting companies operated in the area with thousands of acres of salt ponds on the bay margins in operation from the early 1900s to the late 1970s under the Leslie Salt Company. Other

businesses included dye manufacture and cement from the 1910s onwards by various companies. The construction of a deep-water port and associated infrastructure included the extension of railroad spurs to serve port industries including the shipment of bulk salt, raw materials for cement and export and the fishing companies was completed in the 1930s. The project site and adjacent areas continue to host port activities associated with raw material processing and shipping and solar salt harvesting as well as recreation and office/commercial activities.

Redwood City in the 21st century is both a commercial and technical hub with several major high-tech companies having either their headquarters or major offices in the city. Residents either work locally or commute to San Francisco, the South Bay or the East Bay either via automobile or public transportation.

3.4.3.2.2 Records Search Results

The records search did not identify the presence of any recorded cultural resources within the proposed project APE.

3.4.3.2.2.1 Reports

One report is on file with the CHRIS/NWIC that includes a majority of the project site.[17] This investigation was conducted in 2008 for a ferry terminal with land facilities and expansion of a small parking area. The document also includes a geoarchaeological review which indicated a minimal potential for buried archaeological resources. No cultural resources were identified.

Three reports dated 1999, 2009, and 2012 are on file with the CHRIS/NWIC for projects within 0.25 mile of the project site. These three reports also had negative results for the presence of cultural resources within the respective APEs. Two additional known reports for the salt ponds located within 0.25 mile of the project site, to the east of Seaport Boulevard, and one report for property immediately south of the project site, prepared in 2010, 2011, and 2021, respectively, found no cultural resources within their respective APEs.

3.4.3.2.2.2 Record Sites and/or Reported Sites

No archaeological, historic period, or historical resources have been recorded, reported or identified within, adjacent to, or within 0.25 mile of the proposed project APE. No known Native American villages, trails, traditional use areas or contemporary use areas and/or other features of cultural significance have been identified within or adjacent to the proposed project APE.

3.4.3.2.2.3 Listed Historic Properties

No CRHR and/or NRHP listed, eligible for listing, determined or potentially significant local, State, or federal historic properties, landmarks, etc. have been identified within or immediately adjacent to the proposed project APE.

3.4.3.2.2.4 Archaeological Sensitivity

The topographic and geologic settings indicate that the proposed project APE has a very low sensitivity for prehistoric resources due to its location within an extensive flat tidal marsh adjacent to meandering streams.[18] Historic maps and text summaries indicate that no known Native American shell mounds are

[17] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

[18] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

present within or adjacent to the property. Land reclamation in the 1920s and onwards placed substantial amounts of fill from dredging operations in and around the proposed project area. Geoarchaeological review indicates 2-10 feet of artificial fill over a 25-45 foot thick layer of Holocene Bay Mud dating to the Middle to Late Holocene followed by 45-4000+ feet of Early to Middle Holocene alluvium. All of the sediments have very low to low archaeological potential.

There is a very low sensitivity for significant historic archaeological resources associated with the later American Period. The Pacific Portland Cement plant, built in 1924 on artificial fill within the project site, would have been responsible for initial "extensive disturbance" with operations and improvements over the past 100 years causing further impacts to any potential historical resources associated with cement production.

3.4.3.2.2.5 Sacred Lands File Search

On May 5, 2024, a Sacred Lands File records search for the project site was requested by the Port from the NAHC. On May 8, 2024, the NAHC responded stating it had completed the Sacred Lands File records search and the result was negative (Appendix D [Confidential]). The NAHC noted a negative result does not preclude the existence of a TCR. The NAHC response letter also included a consultation list of tribes culturally affiliated to the project area with a recommendation to contact the listed tribes. On May 15, 2024, in accordance with the recommendations of the NAHC, the Port contacted all tribal representatives listed in the NAHC response letter. As of the date of this EIR, one response has been received. On May 24, 2024, the Muwekma Ohlone Tribe of the San Francisco Bay Area sent a response to the Port via email expressing interest in providing monitoring services with an attached cost breakdown for monitoring services. This email stated that the project information would be forwarded to a Tribal ethnohistorian who may have knowledge of the area. However, no follow up correspondence was received. The email received from the Muwekma Ohlone Tribe did not contain information or a statement that the project area constitutes or contains a TCR, as that term is defined under CEQA, nor, as described below, did the email include a request for consultation.

3.4.3.2.3 AB 52 Tribal Consultation

When the Port initiated preparation of the NOP for the proposed project, the Port had not received a written request from any tribe indicating its wish to be notified of projects within its traditionally and culturally affiliated areas, as required by PRC Section 21080.3.1(b). Commensurate with the intent of AB 52, the Port sent letters of "Formal Notification of Consultation Opportunity Pursuant to Public Resources Code Section 21080.3.1" via FedEx or U.S. Postal Service Priority Mail on May 15, 2024 to representatives of the seven Native American tribes identified by the NAHC as being culturally affiliated to the project area: the Ohlone Indian Tribe, the Muwekma Ohlone Tribe of the SF Bay Area, the Costanoan Rumsen Carmel Tribe, the Amah Mutsun Tribal Band, the Wuksachi Indian Tribe/Eshom Valley Band, the Indian Canyon Mustun Band of Costanoan, and the Amah Mutsun Tribal Band of Mission San Juan Bautista.

Each Native American representative listed by NAHC was sent a project notification letter and map and was informed that, pursuant to PRC Section 21080.3.1(b), the tribe had 30 days from receipt of the letter to request consultation, in writing, with the Port. As described in **Section 3.4.3.2.2.5** above, on May 24, 2024, the Port received one email from the Muwekma Ohlone Tribe of the San Francisco Bay Area expressing interest in providing monitoring services, but the email did not include a request for

consultation. The Port did not receive a formal request for consultation from any of the notified Tribes within the 30-day window and therefore, the AB 52 process was concluded without consultation.

3.4.3.2.4 Built Environment

Only one structure that is considered potentially eligible to be historic would be impacted by the proposed project, the Shell Unloading Wharf that extends parallel from the shore into Westpoint Slough. One other structure, a cinderblock maintenance building at the edge of the western public parking lot, would be demolished to provide for construction of the project site access road. This building was constructed as part of the neighboring Pacific Shores Center in the early 2000s and is not historically significant. There are no other structures or potential historical resources on the project site that would be impacted by the project.

Therefore, the review of the built environment focused on the abandoned Shell Unloading Wharf, which was constructed in 1962 by the Ideal Cement Company to replace an existing pier in the same location. The wharf is a 648-foot long reinforced concrete structure oriented on a northwest/southeast axis. The original wharf plans by Ben C. Gerwick, Inc. are on file at the Port of Redwood City. The wharf is a concrete superstructure supported by parallel rows of bents (12 feet wide) set on 16-inch square pilings. The vertical pilings are arranged both perpendicular and diagonal to the bents. A five foot wide fender projects east from the center of the wharf (which is covered with welded, heavy steel plates). Cast iron mooring cleats (used to secure barges to the wharf) are also located at the center of the wharf.

The Shell Unloading Wharf retains integrity of location in that the structure has not been moved. The condition appears to be deteriorated given that the structure's concrete is spalled and cracked in several places. Although deteriorated, the wharf overall retains a good level of historic integrity of workmanship, design and materials. The structure has not been extensively remodeled or altered since its construction and it is easily identified as the structure originally constructed in 1962. The integrity of setting, feeling and association has been extensively compromised because the original cement plant infrastructure near the wharf has been removed. The visual connections and associations of the wharf with the industrial process of cement manufacturing are no longer apparent. Thus, as part of the original industrial process of cement production, the wharf lacks historic integrity.

Even if the Shell Unloading Wharf retained a higher level of historic integrity, it does not appear to be significant under CRHR Criterion 1 because the Ideal Cement Company does not appear to be a significant business in the history of Redwood City.[19]

The Shell Unloading Wharf also does not appear to be significant under CRHR Criteria 2 and 3 because of its association with the structure's designer Ben C. Gerwick, Inc., nor as part of the history of engineering marine structures. The Shell Unloading Wharf is one of hundreds of marine structures (including wharfs, bridges and other offshore structures) designed by Ben C. Gerwick, Inc. Based on the archival research, the Shell Unloading Wharf has not been identified as a significant structure in the history of the Ideal Cement Company nor as a significant design in the history of civil engineering.[20]

[19] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

[20] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

In conclusion, the Shell Unloading Wharf is not eligible for the CRHR because it lacks historic integrity and it is not significant under CRHR Criteria 1, 2, or 3. Criterion 4 is not applicable to the built environment.

As described above, there are no other structures or potential historical resources within or near the project area that would be impacted by the project. Therefore, no historical resources, pursuant to the criteria in CCR 15064.5(a), have been identified in the APE.

3.4.4 Thresholds of Significance

The proposed project would result in significant impacts associated with cultural resources or tribal cultural resources if it would:

Impact 3.4-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.4-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Impact 3.4-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

Impact 3.4-4 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.4.5 Project Impacts

3.4.5.1 Impact 3.4-1

Impact 3.4-1: Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

CEQA states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (PRC Section 21084.1). A "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). The significance of a historical resource is materially impaired when the project would demolish or materially alter, in an adverse manner, those physical characteristics of the resource that convey its historical or cultural significance or that justify its eligibility for inclusion in the state or local historic register. (CEQA Guidelines Section 15064.5(b)(2)).

As stated above, a historical resource (see PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)) includes a resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined to be eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. (PRC Section 5024.1(d)). Any resource that is over 50 years old (36 CFR Section 60.4), that meets at least one of the four NRHP criteria and that possesses sufficient integrity to express that significance is also considered a "historic property" (36 CFR Section 800.16[l][1]) and therefore may be eligible for listing in the CRHR.

3.4.5.1.1 Construction

3.4.5.1.1.1 Ferry Terminal

Pursuant to the analysis above, no historical resources exist in the project site. Construction of the ferry terminal would not involve the removal or otherwise affect any built-environment structures over 50 years old within the APE that are eligible for listing in the CRHR. Therefore, construction of the ferry terminal would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.1.2 Visitor-Serving Uses

There is one existing structure at the project site that is over 50 years old and that would be removed during construction of the visitor-serving uses, the Shell Unloading Wharf. This structure was evaluated for eligibility for listing in the CRHR and as discussed in **Section 3.4.3.2.4**, determined to not be eligible because it lacks historic integrity and is not significant under the National Register's Criteria 1, 2, or 3; Criterion 4 is not applicable to the built environment. The records search revealed no other historical resources within or adjacent to the project area. Therefore, construction of the visitor-serving uses would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

There are no built-environment structures over 50 years old or other potential historical resources within the APE that are eligible for listing in the CRHR. The Shell Unloading Wharf that is located at the project site and that would be removed during construction of the visitor-serving uses is not eligible for the CRHR. The records search revealed no other historical resources within or adjacent to the project site. Therefore, construction of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.2 Operations

3.4.5.1.2.1 Ferry Terminal

Operations of the ferry terminal would not involve the demolition of any structures or otherwise affect any historical resources. Therefore, operations of the ferry terminal would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.2.2 Visitor-Serving Uses

Operation of the visitor-serving uses would not involve the demolition of any structures or otherwise affect any historical resources. Therefore, operations of the visitor-serving uses would not cause a

substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operations of the proposed project would not involve the demolition of any structures or otherwise affect any historical resources at or near the project area. Therefore, operations of the proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, and there would be no impact.

3.4.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.4.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.4.5.2 Impact 3.4-2

Impact 3.4-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

3.4.5.2.1 Construction

3.4.5.2.1.1 Ferry Terminal

The artificial fill covering the APE and the underlying Bay Mud deposits have very low potential to contain intact buried archaeological deposits and no previously recorded prehistoric or historic-period archaeological resources have been identified within or adjacent to the proposed project APE or within a 0.25-mile radius. Further, additional artificial fill would be imported to the project site to raise the elevation by approximately 7 feet. The majority of ground disturbance, including utility trenching, would occur within the new fill which has no potential to contain intact buried archaeological deposits. The installation of deep piles for the ferry terminal to support the float and access pier would extend beyond the depth of the artificial fill and Bay Mud into Holocene alluvium which, as discussed in **Section 3.4.3.2.2.4**, has very low to low archaeological potential. Given the low to very low potential for the project site to contain unique archaeological deposits or archaeological resources constituting historical resources, the construction of the ferry terminal would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.1.2 Visitor-Serving Uses

As described above, the project site has a very low potential to contain intact buried archaeological deposits and the new artificial fill used to raise the project site elevation by approximately 7 feet has no potential to contain intact buried archaeological deposits. The majority of ground disturbance that would occur during construction of the visitor-serving uses, including utility trenching, would occur within the new fill. The installation of deep pile foundation to support the new structures would extend beyond the depth of the artificial fill and Bay Mud into Holocene alluvium which, as discussed in **Section 3.4.3.2.2.4**, has very low to low archaeological potential. Given the low to very low potential for the project site to contain unique archaeological deposits or archaeological resources constituting historical resources, the

construction of the visitor-serving uses would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

No previously recorded prehistoric or historic-period archaeological resources have been identified within or adjacent to the proposed project APE or within a 0.25-mile radius. The artificial fill covering the APE and the underlying Bay Mud deposits have very low potential to contain intact buried archaeological deposits. Additionally, the proposed project would elevate the project site approximately 7 feet. The majority of ground disturbance that would occur during construction, including utility trenching, would occur within the new fill. The installation of deep pile foundation to support the ferry terminal and new structures would extend beyond the depth of the artificial fill and Bay Muds into Holocene alluvium which, as discussed in **Section 3.4.3.2.2.4**, has very low to low archaeological potential. Given the low to very low potential for the project site to contain unique archaeological deposits or archaeological resources constituting historical resources, the construction would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.2 Operations

3.4.5.2.2.1 Ferry Terminal

Operations of the ferry terminal would not involve any ground-disturbing activities. Therefore, operations of the ferry terminal would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.2.2 Visitor-Serving Uses

Operations of the visitor-serving uses would not involve any ground-disturbing activities. Therefore, operations of the visitor-serving uses would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operation of the proposed project would not involve any ground-disturbing activities. Therefore, operation of the proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. There would be no impact.

3.4.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.4.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.4.5.3 Impact 3.4-3

Impact 3.4-3: Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?

3.4.5.3.1 Construction

3.4.5.3.1.1 Ferry Terminal

Construction of the ferry terminal would involve some ground-disturbing activities, which has the potential to impact subsurface historical resources, including human remains. However, no previously recorded prehistoric or historic-period archaeological resources have been identified within or adjacent to the proposed project APE or within a 0.25-mile radius. The artificial fill covering the APE and the underlying Holocene Bay Mud deposits have very low potential to contain unique archaeological deposits or archaeological resources constituting historical resources. There are no known cemeteries or burials within or adjacent to the APE, and the potential to encounter any human remains during construction activities is considered highly unlikely. Historic maps and text summaries indicate that no known Native American shell mounds are present within or adjacent to the project site.[21] Further, additional artificial fill would be imported to the project site to raise the elevation by approximately 7 feet. The majority of ground disturbance, including utility trenching, would occur within the new fill which has no potential to contain unique archaeological deposits or archaeological resources constituting historical resources, including human remains. In the unlikely event that ground-disturbing activities could impact previously unknown buried human remains, the Port would comply with applicable State laws including CalNAGPRA, Section 7050.5 of the Health and Safety Code, and Sections 5097.94, 5097.98 and 5097.99 of the PRC. Therefore, there would be no impact.

3.4.5.3.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would involve some ground-disturbing activities, which has the potential to unearth previously undiscovered human remains. However, there are no known cemeteries or burials within or adjacent to the APE. The project site is underlain with artificial fill and Holocene Bay Mud deposits that have a very low potential to contain buried archeological deposits or undiscovered human remains. Historic maps and text summaries indicate that no known Native American shell mounds are present within or adjacent to the project site.[22] Further, additional artificial fill would be imported to the project site to raise the elevation by approximately 7 feet. The majority of ground disturbance, including utility trenching, would occur within the new fill which has no potential to contain unique archaeological deposits or archaeological resources constituting historical resources, including human remains. In the unlikely event that ground-disturbing activities could impact previously unknown buried human remains, the Port would comply with applicable State laws including CalNAGPRA, Section 7050.5 of the Health and Safety Code, and Sections 5097.94, 5097.98 and 5097.99 of the PRC. Therefore, there would be no impact.

[21] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

[22] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

3.4.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

There are no known cemeteries or burials within or adjacent to the APE. The area was a former tidal marsh that was subsequently filled with dredged materials. The potential to encounter any human remains as part of the proposed construction activities is therefore considered highly unlikely. Historic maps and text summaries indicate that no known Native American shell mounds are present within or adjacent to the project site.[23] Further, additional artificial fill would be imported to the project site to raise the elevation by approximately 7 feet. The majority of ground disturbance, including utility trenching, would occur within the new fill which has no potential to contain human remains. In the unlikely event that ground-disturbing activities could impact previously unknown buried human remains, the Port would comply with applicable State laws including CalNAGPRA, Section 7050.5 of the Health and Safety Code, and Sections 5097.94, 5097.98 and 5097.99 of the PRC. There would be no impact.

3.4.5.3.2 Operations

3.4.5.3.2.1 Ferry Terminal

Operations of the ferry terminal would not involve any ground-disturbing activities which could have the potential to unearth previously undiscovered human remains. Further, the project site would be raised by an additional 7 feet of artificial fill to accommodate sea level rise, which has no potential to contain human remains. Therefore, operation of the ferry terminal would not disturb any human remains, including those interred outside of dedicated cemeteries. There would be no impact.

3.4.5.3.2.2 Visitor-Serving Uses

Operations of the visitor-serving uses would not involve any ground-disturbing activities which could have the potential to unearth previously undiscovered human remains. Further, the project site would be raised by an additional 7 feet of artificial fill to accommodate sea level rise, which has no potential to contain human remains. Operation of the visitor-serving uses would not disturb any human remains, including those interred outside of dedicated cemeteries. There would be no impact.

3.4.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operations of the proposed project would not involve any ground-disturbing activities which could have the potential to unearth previously undiscovered human remains. Further, the project site would be raised by an additional 7 feet of artificial fill to accommodate sea level rise, which has no potential to contain human remains. Operation of the proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries. There would be no impact.

3.4.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.4.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

[23] Basin Research Associates. December 2024. Cultural Resources Assessment Report in Support of CEQA Environmental Compliance, Port of Redwood City Ferry Terminal Project, San Mateo County. (Appendix D of this Draft EIR [confidential]).

3.4.5.4 Impact 3.4-4

Impact 3.4-4: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe?

3.4.5.4.1 Construction

3.4.5.4.1.1 Ferry Terminal

As noted in **Section 3.4.3.2**, no TCRs, as defined in PRC Section 21074, have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius and no requests for consultation under AB 52 were received. Additionally, the project area is a filled former tidal marsh that has a low to very low sensitivity for prehistoric resources, including TCRs and the site would be further elevated by 7 feet of artificial fill that would not contain TCRs. As such, the construction of the ferry terminal would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. Thus, there would be no impact.

3.4.5.4.1.2 Visitor-Serving Uses

No TCRs have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius and no requests for consultation under AB 52 were received. The visitor-serving uses would be located on a filled former tidal marsh which has a low to very low sensitivity for prehistoric resources, including TCRs, and the site would be further elevated by 7 feet of artificial fill that would not contain TCRs. Therefore, construction of the visitor-serving uses would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. There would be no impact.

3.4.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

No TCRs have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius and no requests for consultation under AB 52 were received. The project area is a filled former tidal marsh which has a low to very low sensitivity for prehistoric resources, including TCRs, and the site would be further elevated by 7 feet of artificial fill that would not contain TCRs. Therefore, construction of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. There would be no impact.

3.4.5.4.2 Operations

3.4.5.4.2.1 Ferry Terminal

No TCRs have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius. Further, operations of the ferry terminal would not involve any ground-disturbing activities or other activities which could disturb unidentified subsurface TCRs. Therefore, operations of the ferry terminal would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. There would be no impact.

3.4.5.4.2.2 Visitor-Serving Uses

No TCRs have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius. Further, operations of the visitor-serving uses, including the hotel, restaurant, and office, would not involve any ground-disturbing activities or other activities which could

disturb unidentified subsurface TCRs. Therefore, operations of the visitor-serving uses would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. There would be no impact.

3.4.5.4.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

No TCRs have been identified or are anticipated to be located within or adjacent to the proposed project APE or within a 0.25-mile radius. Operations of the proposed project would not involve any ground-disturbing or other activities that could disturb previously unidentified TCRs. Therefore, operation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074, and there would be no impact.

3.4.5.4.3 Mitigation Measures

No mitigation is required for construction or operations.

3.4.5.4.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.4.5.5 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic scope of cumulative impacts related to cultural resources consists of the project site and adjacent parcels. As described above, the proposed project would have no impact on historic resources, archaeological resources, human remains, or tribal cultural resources. Therefore, the proposed project would not contribute to a cumulative impact on cultural resources or tribal cultural resources.

3.4.5.5.1 Mitigation Measures

No mitigation is required.

3.4.5.5.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. There would be no cumulative impact to cultural resources or tribal cultural resources.

3.4.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to cultural resources and TCRs associated with construction and operation of the proposed project.

Section 3.5
Energy

3.5.1 Introduction

This section describes the regulatory framework and existing conditions in the project area related to energy, and the impacts from construction and operation of the proposed project. Section 21100(b)(3) of the California Environmental Quality Act (CEQA) requires that an EIR include a detailed statement with mitigation measures proposed to minimize significant effects on the environment, including but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines states that to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections, as well as through mitigation measures and alternatives. In accordance with Appendices F and G of the CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the proposed project.

This analysis focuses on energy consumption and efficiency based on the modeling results reported in Appendix B, Air Quality, Greenhouse Gases, Energy Calculations, and Health Risk Assessment, of this Draft EIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled (VMT) estimates for the proposed project (see Appendix H, Transportation Study Report, of this Draft EIR). For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.5.2 Methodology

Based on CEQA Guidelines Appendix F, Energy Conservation, in order to ensure energy implications are considered in project decisions, EIRs discuss potential energy impacts of projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources. Environmental effects may include a project's energy requirements and its energy use efficiencies by amount and fuel type during demolition, construction, and operation; the effects of a project on local and regional energy supplies; the effects of a project on peak- and base-period demands for electricity and other forms of energy; the degree to which a project complies with existing energy standards; the effects of a project on energy resources; and the project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable.

To assist in analyzing whether the proposed project's energy consumption is considered wasteful, inefficient, or unnecessary, the following energy conservation goals from Appendix F of the CEQA Guidelines are used:

- Decrease overall per capita energy consumption.
- Decrease reliance on fossil fuels such as coal, natural gas, and oil.
- Increase reliance on renewable energy sources.

Though these energy conservation goals are used in this analysis to determine whether long-term operations of the proposed project could result in wasteful, inefficient, or unnecessary energy consumption, they are not considered bright-line significance thresholds. In other words, even though a project may result in an increase in per capita energy consumption, that does not necessarily mean that the consumption of that energy would be wasteful, inefficient, or unnecessary, because the consumption of energy alone does not constitute the wasteful, inefficient, or unnecessary use of energy resources. Because different land use types consume different types of energy resources at different rates depending on operational objectives and energy needs, comparing the per capita energy consumption of the proposed project against the aggregated nonresidential energy consumption data for the tri-county area is informative but not determinative of whether that energy consumption would be wasteful, inefficient, or unnecessary. Therefore, this analysis focuses on whether the use of that energy resource is carried out in a wasteful, inefficient, or unnecessary manner in the context of the CEQA Guidelines Appendix F energy conservation goals and comparable land use types, and explores whether mitigation may be warranted to ensure that the use of energy resources is not considered wasteful, inefficient, or unnecessary.

The energy and fuel usage information provided for the proposed project are based on the following:

- **Building Energy.** Energy consumption estimates for the landside improvements associated with the ferry terminal (e.g., lighting, ferry float, restroom, electric vehicle [EV] charging stations, miscellaneous electrical load) utilize load estimates from COWI and assumed operating hours for individual components. For instance, lighting loads were multiplied by the annual average hours of daylight for Redwood City to identify the annual energy consumption estimates. Building energy consumption estimates for landside improvements associated with the future visitor-serving uses (e.g., office, hotel, restaurant) utilize the California Emissions Estimator Model (CalEEMod version 2022.1[1]) default energy (i.e., electricity and natural gas) rates. CalEEMod default energy consumption for nonresidential land uses is based on the California Energy Commission's (CEC's) 2018–2030 Uncalibrated Commercial Sector Forecast (commercial forecast) compiled by the CEC in 2019. Use of the CalEEMod default energy rates results in conservative estimates compared to the 2022 Building Energy Efficiency Standards because the commercial forecast is based on the energy demand per square foot of building space, land use subtype, and end use for building stocks in operation as of the year 2019, which do not necessarily reflect compliance with the most recent building energy code. It is anticipated that new nonresidential buildings under the current Building Energy Efficiency Standards will generally result in lower energy use than disclosed in this analysis. For EV charging electricity demand, an average EV battery size of 69.5 kilowatt-hours (kWh) with one full battery charge per station per day was assumed (see Appendix B for detailed calculations).

[1] The CalEEMod User Guide, including its default assumptions, is provided at: https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf.

- **On-Road Vehicle Fuel Usage.** Fuel usage associated with operation-related vehicle trips and construction-related vehicle trips (i.e., worker and vendor trips) is based on fuel usage data obtained from EMission FACtor (EMFAC) model EMFAC2021, version 1.0.2,[2] and on vehicle trip generation data provided in the transportation impact analysis (see Appendix H, Transportation Study Report, of this Draft EIR). Fuel usage data and fleet mix from EMFAC 2021 v.1.0.2 was used on a basin-wide scale for the San Francisco Bay Area, since the proposed project would serve the broader region.
- **Off-Road Equipment Fuel Usage.** Fuel usage for construction-related off-road and waterborne equipment is based on fuel usage data obtained from OFFROAD2021, version 1.0.5. Ferry fuel consumption estimates during operation are based on average fuel consumption estimates provided by the Water Emergency Transportation Authority (WETA). Fuel usage data from OFFROAD2021 v.1.0.5 was used on a basin-wide scale for the San Francisco Bay Area, since the proposed project would serve the broader region.

3.5.3 Environmental Setting

3.5.3.1 Regulatory Framework

3.5.3.1.1 Federal

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for vehicle model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (MPG) for model year 2025. However, on March 30, 2020, the U.S. Environmental Protection Agency (USEPA) finalized updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026, which preempted state and local laws related to fuel economy standards. Under SAFE, the fuel economy standards increased 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012, requiring a fleet average of 40.4 MPG for model year 2026 vehicles.[3]

Pursuant to Executive Order (EO) 13990, the National Highway Traffic Safety Administration (NHTSA) repealed the SAFE Vehicles Rule Part One on December 21, 2021, and finalized new fuel standards on March 31, 2022. Fuel efficiency under the new standards increased 8 percent for model years 2024 to 2025 and 10 percent for model year 2026. Overall, the new CAFE standards require a fleet average of 49

[2] EMFAC2021, version 1.0.2, technical documentation, including default assumptions, is provided at: https://ww2.arb.ca.gov/sites/default/files/2022-05/v102%20Updates%20Memo%20%281%29_0.pdf and https://ww2.arb.ca.gov/sites/default/files/2021-08/emfac2021_technical_documentation_april2021.pdf.

[3] Federal Register. 2020. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84. Available: https://www.federalregister.gov/documents/2020/04/30/2020-06967/the-safer-affordable-fuel-efficient-safe-vehicles-rule-for-model-years-2021-2026-passenger-cars-and.

MPG for passenger vehicles and light trucks for model year 2026, which would be a 10 MPG increase relative to model year 2021.[4]

On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027 to 2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030 to 2035. The final rules require an industry fleetwide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027–2031) and for light trucks (model years 2029–2031). For heavy-duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030–2032) and 8 percent per year (model years 2033–2035).[5]

On January 20, 2025, the President of the United States signed an executive order, *Unleashing American Energy*, which directed the USEPA to eliminate the social cost of carbon calculation from any federal permitting or regulatory decision and submit recommendations on the legality and continued applicability of the 2009 endangerment finding, among other directives.[6] On July 29, 2025, the USEPA released its proposal to rescind the 2009 endangerment finding and repeal all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines pursuant to the federal Clean Air Act Section 202(a).[7] The proposed rule would remove GHG-related provisions from 40 CFR Part 600 without affecting provisions related to CAFE standards and fuel economy labeling.[8]

In May 2025, the U.S. Senate approved several bills under the Congressional Review Act which purported to rescind California's CAA waiver. (House Joint Resolution [H.J.Res.] 87, H.J.Res. 88, H.J.Res. 89.) However, the U.S. Senate Parliamentarian and the Government Accountability Office (GAO) both concluded that the bills were illegal.[9] California and other states also filed a lawsuit challenging the waiver revocations. (See *State of California et al v. U.S.A et al.* (2025) N.D. Cal Case No. 25-CV-04966). Furthermore, the 2026 administration rescinded the GHG endangerment finding and removed federal GHG motor vehicle emissions standards from 40 CFR part 600. (Vol. 90 Federal Registrar, No. 146, 36288.) This decision has been challenged in *American Public Health Association, et al. v. United States Environmental Protection Agency and Lee Zeldin, Administrator*, Case No. 26-1037 (D.C. Cir., file Feb. 18, 2026). Individual cities and counties lack the ability to regulate fuel economy standards. 42 U.S.C. Section 7543(a) states: "No state

[4] National Highway Traffic Safety Administration (NHTSA). April 1, 2022. USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024-2026. Available: https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026.

[5] National Highway Traffic Safety Administration (NHTSA). 2024. Corporate Average Fuel Economy webpage. Available: https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy. Accessed February 12, 2025.

[6] The White House. January 20, 2025. Unleashing American Energy. Available: https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/.

[7] U.S. Environmental Protection Agency. July 29, 2025. EPA Releases Proposal to Rescind Obama-Era Endangerment Finding, Regulations that Paved the Way for Electric Vehicle Mandates news release. Available: https://www.epa.gov/newsreleases/epa-releases-proposal-rescind-obama-era-endangerment-finding-regulations-paved-way.

[8] Federal Register. 2025. Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards: Proposed Rule, Vol. 90 Federal Register No. 146, 36288. Available: https://www.federalregister.gov/documents/2025/08/15/2025-15512/reconsideration-of-2009-endangerment-finding-and-greenhouse-gas-vehicle-standards-extension-of.

[9] U.S. Government Accountability Office. March 6, 2025. Observations Regarding the Environmental Protection Agency's Submission of Notices of Decision on Clean Air Act Preemption Waivers as Rules Under the Congressional Review Act. Available: https://www.gao.gov/products/b-337179#:~:text=As%20outlined%20in%20the%20letter,normally%20issue%20a%20legal%20decision; see also Schumer, Charles E. U.S. Senator Minority Leader et al, May 1, 2025. Letter to U.S. Senate Majority Leader John Thune and U.S. Senate Majority Whip John Barrasso. Available: https://www.padilla.senate.gov/wp-content/uploads/Letter-to-Thune-Barrasso-re-CAA-Waivers-CRA-Parliamentarian-Overrule.pdf.

or any political subdivision therefore shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part."

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE standards; expands and strengthens the Renewable Fuel Standard; adopts appliance energy-efficiency standards and building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.[10] The current federal administration recently rolled back many of the regulations and policies that stemmed from this act, including weakening fuel efficiency standards and targeting renewable energy subsidies, among other changes.

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and it includes tax credits for purchasing hybrid and alternative fuel vehicles and promoting alternative fuels. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.[11]

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the U.S. Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.[12]

3.5.3.1.2 State

2023 Integrated Energy Policy Report

The CEC published the 2023 Integrated Energy Policy Report to identify pathways to deeply decarbonize the State's electricity system in response to meeting the Senate Bill (SB) 100 (discussed below) goal of zero-carbon by 2045. The report provides an analysis of electricity sector trends, building decarbonization and energy efficiency, zero-emission vehicles (ZEVs), energy equity, climate change adaptation, electricity reliability, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts. The aim is to leverage California's clean electricity system to decarbonize, or remove carbon

[10] U.S. Environmental Protection Agency. Summary of the Energy Independence and Security Act Public Law 110-140 (2007) webpage. Available: https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act. Accessed March 12, 2024.

[11] Congressional Research Service. 2006. Energy Policy Act of 2005: Summary and Analysis of Enacted Provisions. Available: https://www.everycrsreport.com/files/20060308_RL33302_5deb6e20eda4faa299d9f2b5ca6cdacf9c60c0b5.pdf.

[12] Public Law 90-481. 1968. Natural Gas Pipeline Safety Act of 1968. Available: https://www.congress.gov/90/statute/STATUTE-82/STATUTE-82-Pg720.pdf.

from, other portions of the State's energy system. SB 1389 (Chapter 568, Statutes of 2002) requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery, distribution, electricity demand, and price to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.[13] The CEC adopts an Integrated Energy Policy Report every two years and an update every other year. The Draft 2024 Integrated Energy Policy Report Update is available and the 2025 Integrated Energy Policy Report is currently under development.[14] The Draft 2024 Integrated Energy Policy Report Update includes updated energy forecasts reflecting, among other trends, growing electrification of buildings and transportation modes.

AB 2076 Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076, the CEC and California Air Resources Board (CARB) prepared and adopted in 2003 a joint agency report, Reducing California's Petroleum Dependence. AB 2076 emphasizes the importance to adopt measures to improve transportation energy efficiency and expand the use of non-petroleum fuels to allow for a smooth transition away from petroleum dependence in the transportation sector. The areas of influence include legislative direction, fuel efficiency, and fuel substitution.[15]

AB 1007 State Alternative Fuels Plans

AB 1007 (Chapter 371, Statutes 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative, nonpetroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-State production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-State production of biofuels without causing a significant degradation of public health and environmental quality.[16]

Executive Order S-06-06, Bioenergy Action Plan

EO S-06-06, adopted April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs State agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050. EO S-06-06 also calls for the State to meet a target for use of biomass electricity.

[13] California Energy Commission. 2023. Integrated Energy Policy Report Highlights. Available: https://www.energy.ca.gov/sites/default/files/2024-05/2023_Integrated_Energy_Policy_Report_Highlights_ADA.pdf.

[14] California Energy Commission. 2025. Integrated Energy Policy Report – IEPR webpage. Available: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report-iepr. Accessed June 9, 2025.

[15] California Energy Commission and California Air Resources Board. 2003. Reducing California's Petroleum Dependence. Available: https://ww2.arb.ca.gov/sites/default/files/classic/fuels/carefinery/ab2076final.pdf.

[16] California Energy Commission. October 2007. State Alternative Fuels Plan. CEC-600-2007-011-CTF.

The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan[17] updates the 2011 Plan and provides a more detailed action plan to achieve the following goals:

- Increase environmentally and economically sustainable energy production from organic waste.
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable fuels for transportation and fuel cell applications.
- Create jobs and stimulate economic development, especially in rural regions of the State.
- Reduce fire danger, improve air and water quality, and reduce waste.

California Energy Commission

The CEC was created in 1974 under the Warren-Alquist Act as the State's principal energy planning organization in order to meet the energy challenges facing the State in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing State energy policy:[18]

- Forecast Statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development and demonstration.
- Plan for and direct the State's response to energy emergencies.[19]

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. This Plan was updated in January 2011.[20] The Long-Term Energy Efficiency Strategic Plan articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

[17] Bioenergy Interagency Working Group. August 2012. 2012 Bioenergy Action Plan. Available: https://resources.ca.gov/CNRALegacyFiles/docs/energy_and_climate_change/2012_Bioenergy_Action_Plan.pdf.
[18] California Energy Commission. 2025. California Energy Commission's About webpage. Available: https://www.energy.ca.gov/about. Accessed February 25, 2025.
[19] California Energy Commission. 2025. About the California Energy Commission webpage. Available: https://www.energy.ca.gov/about/core-responsibility-fact-sheets/about-california-energy-commission. Accessed February 25, 2025.
[20] California Public Utilities Commission. 2011. CA Energy Efficiency Strategic Plan January 2011 Update. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/5303-caenergyefficiencystrategicplan-jan2011.pdf.

- All new residential construction in California will be zero net energy by 2020;[21]
- All new commercial construction in California will be zero net energy by 2030;
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long-Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five billion-plus square feet of space accounts for 38 percent of the State's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of natural gas use. In 2006, schools and colleges were in the top five facility types for electricity and natural gas consumption, accounting for approximately 10 percent of the State's electricity and natural gas use.[22]

The CPUC and CEC have adopted the following goals to achieve zero net energy levels by 2030 in the commercial sector:

- **Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

In August 2025, CPUC adopted new long-term energy efficiency goals for the State's investor-owned utilities. These goals aim to promote cost-effective energy-saving programs that reduce energy use, lower customer costs, and support California's climate and clean energy commitments.[23] These goals were based on the 2025 Energy Efficiency Potential and Goals Study and focus on achieving savings through to 2037, using a Total System Benefit (TSB) metric to value the long-term cost and environmental benefits of energy efficiency and fuel substitution efforts. The Statewide forecasts TSB for 2026 is $589 million.

[21] Zero net energy buildings are buildings that the total amount of energy used by the building on an annual basis is equal to or less than the amount of renewable energy created on the site.

[22] California Public Utilities Commission. 2011. CA Energy Efficiency Strategic Plan January 2011 Update. Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/5303-caenergyefficiencystrategicplan-jan2011.pdf.

[23] California Public Utilities Commission. August 28, 2025. CPUC Sets New Energy Efficiency Targets to Continue California Leadership in Energy Efficiency news release. Available: https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-sets-new-energy-efficiency-targets-to-continue-california-leadership-in-energy-efficiency.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

The California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006, 2011, and 2018. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S 14 08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the California legislature in 2011 (SB X1-2). The CPUC is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State.[24]

Senate Bill 350

SB 350 (de Leon) expanded the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. SB 350 also required the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and natural gas corporations consistent with this goal. SB 350 also provided for the transformation of the California Independent System Operator (CAISO) into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by CAISO to those markets, pursuant to a specified process.[25]

Senate Bill 100

SB 100 replaced SB 350, instead requiring the RPS for public owned facilities and retail sellers to consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 established a new RPS requirement of 50 percent by 2026. Furthermore, SB 100 also established an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under SB 100, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.[26]

[24] California Public Utilities Commission. 2025. Renewables Portfolio Standard (RPS) Program webpage. Available: https://www.cpuc.ca.gov/rps. Accessed February 25, 2025.

[25] California Energy Commission. 2026. Clean Energy and Pollution Reduction Act - SB 350 webpage. Available: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350. Accessed August 13, 2026.

[26] California Energy Commission. 2025. SB 100 Joint Agency Report webpage. Available: https://www.energy.ca.gov/sb100. Accessed February 25, 2025.

Senate Bill 1020

SB 1020 requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all State agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.[27]

Energy Efficiency Regulations

Title 24 of the California Code of Regulations requires California buildings to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), and Part 12 (Referenced Standards Code). The California Building Code is applicable to all development in California (Health and Safety Code Sections 17950 and 18938(b)).

California Building Code: Title 24, Part 6, Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2024 (CCR Title 24, Part 6). Title 24 Part 6 requires the design of building shells and building components to conserve energy. The standards are updated every three years to allow for consideration and incorporation of new energy efficiency technologies and methods.

In 2024, the CEC adopted the 2025 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission. The 2025 standards will become effective and replace the existing 2022 standards on January 1, 2026. The 2025 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances.[28] The Building Energy and Efficiency Standards and CALGreen undergo a triennial update with a goal to achieve zero net energy for new buildings by 2030.

Starting in 2020, the California Energy Code was revised to require solar, and the Code requires "All single-family residential buildings shall have a newly installed photovoltaic (PV) system or newly installed PV modules meeting the minimum qualification requirements specified in Joint Appendix JA11." (CCR, Title 24, Part 6, Section 150.1(c)(14).) The California Energy Code was further updated in 2022 to require solar for multifamily buildings, and energy storage for structures greater than three habitable stories. (CCR, Title 24, Part 6, Sections 170.2(f), (g), (h).) Similarly, solar photovoltaics and energy storage are now required for grocery stores, offices, financial institutions, unleased tenant space, retail, schools, warehouses, auditoriums, convention centers, hotels/motels, libraries, medical office buildings/clinics, restaurants, theaters, and mixed-use buildings where one or more of these building types constitute at least 80 percent of the floor area. (CCR, Title 24, Part 6, Section 140.10(a)).

[27] State of California. 2022. Senate Bill No. 1020 - Clean Energy, Jobs, and Affordability Act of 2022. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1020.

[28] California Energy Commission. 2021. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D. Available: https://www.energy.ca.gov/publications/2021/environmental-impact-report-amendments-building-efficiency-standards-2022-energy.

California Building Code: Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code (CBSC). It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The mandatory provisions of CALGreen became effective January 1, 2011, and were most recently updated in 2024 (2025 CALGreen update). The 2025 CALGreen update becomes effective on January 1, 2026, and provides updates to the residential and nonresidential voluntary measures. This includes the requirement to recycle and/or salvage for reuse a minimum of 65 percent of nonhazardous construction and demolition waste (refer to CALGreen Section 5.408) and nonresidential mandatory measures for (EV charging requirements (refer to CALGreen Section 5.106.5.3).

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[29]

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601 through 1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. They contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California (CCR Title 20, Parts 1600–1608). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.[30]

Off-road Equipment and Transportation-Related Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I set GHG emissions standards for new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that set more stringent fuel economy and GHG

[29] California Building Standards Commission. July 2022 (Updated 2024). 2022 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11. Available: https://codes.iccsafe.org/content/CAGBC2022P1/copyright.

[30] California Energy Commission. 2026. Appliance Efficiency Regulations. Available: https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20. Accessed August 11, 2026.

emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under *Federal*, above). In January 2012, CARB approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of ZEVs into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.[31]

Title 13, Chapter 9, Article 4.8, Section 2449

Section 2449 of the CCR, Title 13, Chapter 9, Article 4.8 was adopted on May 2, 2008 that limits non-essential idling of fleets to no more than five consecutive minutes at any location. This idling restriction applies to all vehicles in California with a diesel-fueled or alternative diesel-fueled off-road engine, unless a waiver provides sufficient justification that such idling is necessary.[32]

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan (see Section 3.7, Greenhouse Gas Emissions, of this Draft EIR for more information) for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Association of Bay Area Governments (ABAG) is the MPO for the Bay Area region, which includes Redwood City. Pursuant to the recommendations of the Regional Transportation Advisory Committee (RTAC), CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.[33]

Executive Order N-79-20

On September 23, 2020, Executive Order N-79-20[34] was issued, which sets a time frame for the transition to zero-emissions (ZE) passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop and propose the following:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in California toward the target of 100 percent of in-State sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.

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[31] California Air Resources Board. January 18, 2017. California's Advanced Clean Cars Midterm Review. Available: https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary_Ac.pdf.

[32] California Air Resources Board. 2016. Options for Cities to Mitigate Heavy-duty Vehicle Idling. Available: https://ww2.arb.ca.gov/sites/default/files/2021-02/arb_options_cities_mitigate_idling.pdf.

[33] State of California. 2008. Senate Bill No. 375. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375.

[34] State of California. September 23, 2020. Executive Order N-79-20. Available: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf.

- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the USEPA, and local air districts.

On August 25, 2022, CARB adopted the Advanced Clean Cars II (ACC II) regulations that codifies the EO N-79-20 goal of 100 percent of in-State sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, ACC II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.[35] The ACC II Program provides the regulatory framework for ensuring the sales requirement goal of EO N-79-20 to ultimately reach 100 percent ZEV sales in the State by 2035. As discussed in Section 3.7, Greenhouse Gas Emissions, implementation of ACC II is uncertain, following Public Law No. 119-16.

Advanced Clean Fleets Regulation

In April 2023, CARB released the Advanced Clean Fleets (ACF) regulation to accelerate the transition to ZE medium- and heavy-duty vehicles.[36] In conjunction with the Advanced Clean Trucks (ACT) regulation, the ACF regulations helps to ensure that medium- and heavy-duty ZEVs are brought to the market by requiring certain fleets to purchase ZEVs. The ACF ZEV phase-in approach which provides initial focus where the best fleet electrification opportunities exist, sets clear targets for regulated fleets to make a full conversion to ZEVs, and creates a catalyst to accelerate development of a heavy-duty public infrastructure network.

The ACF regulations cover four main elements:

- Manufacturer sales mandate. Manufacturers may sell only ZE medium- and heavy-duty vehicles starting in 2036.
- Drayage fleets. Beginning January 1, 2024, trucks must be registered in the CARB Online System to conduct drayage activities in California. Non-ZE "legacy" drayage trucks may register in the CARB Online System through December 31, 2023. Legacy drayage trucks can continue to operate through their minimum useful life. Beginning January 1, 2024, only ZE drayage trucks may register in the CARB Online System. All drayage trucks entering seaports and intermodal railyards would be required to be ZE by 2035.
- High priority and federal fleets. High priority and federal fleets must comply with the Model Year Schedule or may elect to use the optional ZEVMilestones Option to phase-in ZEVs into their fleets:
  - Model Year Schedule: Fleets must purchase only ZEVs beginning 2024 and, starting January 1, 2025, must remove internal combustion engine vehicles at the end of their useful life as specified in the regulation.
  - ZEVMilestones Option (Optional): Instead of the Model Year Schedule, fleets may elect to meet ZEV targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.

[35] California Air Resources Board. August 25, 2022. California moves to accelerate to 100% new zero-emission vehicle sales by 2035 news release. Available: https://ww2.arb.ca.gov/news/california-moves-accelerate-100-new-zero-emission-vehicle-sales-2035.

[36] California Air Resources Board. 2024. Advanced Clean Fleets Regulation webpage. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/about. Accessed April 15, 2024.

- State and local agencies. State and local government fleets, including city, county, special district, and State agency fleets, were required to ensure 50 percent of vehicle purchases are ZE beginning in 2024 and 100 percent of vehicle purchases are ZE by 2027. Small government fleets (those with 10 or fewer vehicles) and those in designated counties would start their ZEV purchases beginning in 2027. Alternately, State and local government fleet owners may elect to meet ZEV targets using the ZEV Milestones Option. State and local government fleets may purchase either ZEVs or near-ZEVs, or a combination of ZEVs and near-ZEVs, until 2035. Starting in 2035, only ZEVs will meet the requirements.

The ACF regulations would also establish requirements that transform the medium- and heavy-duty vehicle sector and demonstrate independent utility through achievement of the following objectives:

- Achieve criteria and GHG emissions reductions consistent with the goals identified in the State Implementation Plan (SIP) Strategy and Scoping Plan.
- Provide emissions reductions in disadvantaged communities (DAC), thereby supporting the implementation of AB 617 (Garcia, C., Chapter 136, Statutes of 2017).
- Support the goals of Executive Order N-79-20 which calls for accelerated ZEV deployment with these targets:
  - 100 percent ZE drayage by 2035
  - 100 percent ZE trucks and buses where feasible by 2045
- Ensure requirements, such as ZEV deployment schedules and related infrastructure build-out, are technologically feasible, cost-effective, and support market conditions.
- Lead the transition away from petroleum fuels and towards electric drivetrains.
- Contribute towards achieving carbon neutrality in California pursuant to SB 100, and in accordance with Executive Order B-55-18.
- Mindfully set requirements to allow time for public ZE infrastructure buildout for smaller fleets or for regional haul applications that would be reliant on a regional network of public chargers.
- Ensure manufacturers and fleets work together to place ZEVs in service suitably and successfully as market expands.
- Establish a fair and level playing field among fleet owners.
- Craft the Proposed Project in a way that ensures institutional capacity for CARB to manage, implement, and enforce requirements.

As of the writing of this EIR, CARB has rescinded its waiver requests for several regulations including the In-Use Locomotive Regulation, portions of the Advanced Clean Fleets regulation, and the Transportation Refrigeration Unit regulation.[37] In September 2025, CARB repealed portions of the Advanced Clean Fleets

[37] California Air Resources Board. 2024. Advanced Clean Fleets Regulation webpage. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets/about. Accessed April 15, 2024.

regulation that required a federal waiver or authorization, such as those applicable to high-priority and drayage fleets.[38]

In-Use Off-Road Diesel-Fueled Fleets Regulation

In 2008, CARB approved the Off-Road Regulation to reduce diesel particulate matter (PM), nitrogen oxides (NO_X), and other criteria air pollutants from in-use off-road heavy-duty vehicles in California. The regulation limits engine idling, requires fleet reporting to CARB, restricts adding older vehicles, mandates phasing out of older engines, and requires the use of renewable diesel.

Emission standards for off-road engines are categorized by engine tier, with Tier 0 representing the oldest, uncontrolled engines and Tier 4 Final representing the cleanest. Each tier corresponds to emission limits established by the USEPA and CARB, based on the year and type of engine certification.

The Off-Road Regulation prohibits the addition of vehicles with older-tier engines. The 2022 amendments strengthened these restrictions by requiring newly added vehicles to meet more stringent standards and by mandating the removal of older, dirtier engines (i.e., Tier 0 through Tier 2 engines from operation over time.[39]

Energy Storage

California has set ambitious long-term goals for energy storage beyond 2026 to support its clean energy and climate goals. The State aims to reach 100 percent carbon-free electricity by 2045, which will require significant investment in renewable energy sources like wind and solar, as well as energy storage technologies to balance the variability of these sources.

CAISO has a total energy storage capacity of more than 3,160 megawatts (MW) as of June 2022.[40] This includes both large-scale and distributed energy storage systems, such as batteries, pumped hydroelectric storage, and thermal storage. CAISO is responsible for managing the electricity grid for much of California, and it set a target of adding 3,300 MW of additional energy storage capacity by 2024 to support the integration of more renewable energy sources like wind and solar. As part of SB 100, load serving entities (LSEs) were required to procure no less than 1.3 gigawatts (GW) of energy storage capacity by 2020, and 3 GW by 2030. Additionally, the CPUC has established a target of 15 GW of energy storage capacity by 2030.[41]

The Integrated Resource Plan

CAISO develops a coordinated grid management plan to integrate the generation and storage capacities of LSEs, called the Integrated Resource Plan (IRP). The IRP is a comprehensive planning document that outlines CAISO's forecasts for electricity demand, supply, and transmission needs over a 20-year planning horizon, as well as its strategies for integrating renewable energy resources and other grid services to

[38] California Air Resources Board. 2025. Proposed Amendments to the Advanced Clean Fleets and Low Carbon Fuel Standard Regulations. Available: https://ww2.arb.ca.gov/rulemaking/2025/acfab1594. Accessed August 11, 2026.

[39] California Air Resources Board. 2025. In-Use Off-Road Diesel-Fueled Fleets Regulation webpage. Available: https://carbstage.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation/about. Accessed September 17, 2025.

[40] California Independent System Operator. June 14, 2022. "A golden age of energy storage." Available: https://www.caiso.com/about/news/energy-matters-blog/a-golden-age-of-energy-storage-2.

[41] California Public Utilities Commission. December 1, 2022. CPUC Creates New Framework to Advance California's Transition Away From Natural Gas. Available: https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-creates-new-framework-to-advance-california-transition-away-from-natural-gas.

meet those needs. The plan is developed in collaboration with LSEs, regulators, and other stakeholders, and is updated annually to reflect changes in the energy landscape and evolving policy goals. Overall, the IRP plays a critical role in ensuring the reliability and resilience of California's electricity grid as the State continues to transition to a cleaner and more sustainable energy system.

The Interconnection Queue

The Interconnection Queue is an application process that functions as a waiting list of proposed electricity generation and storage projects that are seeking to connect to the grid. When a new battery energy storage (BES) facility or generation infrastructure is proposed, the developer submits an application to CAISO to request an interconnection to the grid. CAISO evaluates the application to ensure that the facility meets technical and operational requirements, such as voltage regulation and frequency response, and that it can be integrated effectively into the grid.

Once the BES facility or generation infrastructure is approved by CAISO, it is assigned a point of interconnection on the grid, and its output is added to the IRP as a resource that can provide electricity and other grid services, such as frequency regulation or ramping support. The facility is then dispatched by CAISO based on its bids into the day-ahead and real-time electricity markets, and its output is used to help balance supply and demand on the grid in real-time.

Overall, the Interconnection Queue is an important mechanism for integrating new BES facilities and other electricity resources into the California grid, and for ensuring that the grid remains reliable and resilient as the State continues to transition to a cleaner and more sustainable energy system.[42]

3.5.3.1.3 Regional

Peninsula Clean Energy Strategic Integrated Resource Plan

The Peninsula Clean Energy (PCE) Strategic IRP provides guidance for serving the electric needs of the residents and businesses in San Mateo County while meeting PCE's policy objectives and regulatory requirements over a 10-year planning period from 2018-2027. This Strategic IRP addresses how PCE will meet the following targets by managing a portfolio of energy and capacity resources to:

- Meet California's RPS requirements of 50 percent of retail electricity sales to come from renewable energy sources by 2030.
- Provide the necessary capacity reserves to meet California's Resource Adequacy (RA) regulatory requirements for load-serving entities.
- Maintain a minimum renewable energy content of 50 percent for its ECOplus product, and 100 percent for its ECO100 product, while working towards a goal of increasing PCE's renewable content to 100 percent renewable energy for all PCE customers by 2025.

[42] California ISO. 2026. Generator interconnection webpage. Available: https://www.caiso.com/generation-transmission/generation/generator-interconnection. Accessed August 11, 2026.

- Meet its GHG-free target of 85 percent for 2018 and increase its GHG-free energy by 5 percent per year to 100 percent GHG-free in 2021. (This target was met in 2021 based on PCE's most recent two-year report to CPUC).[43]

San Mateo County's Alternative Fuel Readiness Plan

The Alternative Fuel Readiness Plan (AFRP) for San Mateo County provides a resource regarding the increased use and incorporation of alternative fuel vehicles and alternative fuel infrastructure in communities within San Mateo County. This AFRP provides an overview of each alternative fuel in the marketplace and presents the motivations for having an AFRP, including existing legislation and incentives, environmental benefits, and economic factors.[44]

Plan Bay Area 2050+

The Metropolitan Transportation Commission (MTC) and ABAG adopted Plan Bay Area 2050 on October 21, 2021.[45] Plan Bay Area 2050+,[46] adopted in March 2026, is the latest long-range plan and a limited and focused update of the Plan Bay Area 2050. Plan Bay Area 2050+ provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375. Under the Plan Bay Area 2050+ strategies, 62 percent of all Bay Area households would live within one-half mile of frequent transit services by 2050, including the vast majority of low-income households.[47] Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work from 58 percent in 2023 to 48 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the State mandate of a 19-percent reduction in per-capita emissions by 2035 — but only if all strategies are implemented.[48]

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area 2050+ land use concept plan concentrates most of the new regional population and employment growth in Growth Geographies, including:

- Priority Development Areas (PDA) — Areas generally near existing job centers or frequent transit that are locally identified for housing and job growth.
- Priority Production Areas (PPA) — Industrial areas that are important to the regional economy and local middle-wage job growth. Like PDAs, PPAs are identified by local governments.

[43] Peninsula Clean Energy. November 1, 2022. Standard Load Serving Entity (LSE) Plan. Available: https://www.peninsulacleanenergy.com/wp-content/uploads/2024/11/Attachment-A-pcea_public_v1.pdf.
[44] City/County Association of Governments of San Mateo County. 2025. Alternative Fuel Readiness Plan webpage. Available: https://ccag.ca.gov/projects/countywide-projects/afrp/. Accessed February 21, 2025.
[45] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). October 2021. Plan Bay Area 2050. Available: https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.
[46] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.
[47] Plan Bay Area 2050+ defines "frequent transit" services as having headways of 15 minutes or less during peak hours.
[48] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

- Transit-Rich Areas (TRA) — Places near rail, ferry or frequent bus service that were not already identified as PDAs, including all areas outside PDAs subject to MTC's Transit-Oriented Communities Policy.
- High-Resource Areas (HRA) — State-identified places with well-resourced schools, transit service and access to jobs, among other criteria.

An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The proposed project is not within any identified PDAs, PPAs, TRAs, or HRAs.[49]

2017 Clean Air Plan

The Bay Area Air District (Air District)[50] adopted the 2017 "Clean Air Plan: Spare the Air, Cool the Climate" (2017 Clean Air Plan)[51] on April 19, 2017, making it the most recently adopted comprehensive plan. The 2017 Clean Air Plan incorporated significant scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. It sets a goal of reducing health risk impacts to local communities by 20 percent between 2015 and 2020 and lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy was developed to be implemented in three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, toxic air contaminants (TACs), and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources, (2) transportation, (3) energy, (4) agriculture, (5) natural and working lands, (6) waste management, (7) water, (8) super-GHG pollutants, and (9) buildings.

The proposed control strategy is based on the following key priorities:

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[49] MTC and ABAG. March 2026.Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[50] The Bay Area Air District is a streamlined name change announced by the Bay Area Air Quality Management District (BAAQMD) in January 2025. Documents published by the Air District that are referenced in this EIR are attributed to BAAQMD.

[51] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.[52]

City/County Association of Governments of San Mateo County

The City/County Association of Governments (C/CAG) of San Mateo County is responsible for providing countywide transportation planning. In San Mateo County, C/CAG is the Congestion Management Agency tasked with preparing the Congestion Management Plan (CMP) that describes the strategies to address roadway congestion problems and comprehensive strategies needed to develop appropriate responses to transportation needs. C/CAG works cooperatively with MTC, transit agencies, local governments, Caltrans, and the Air District to help promote these countywide solutions to transportation problems. The 2023 CMP Update contains Level of Service (LOS) standards for roadway segments and intersections, system performance measures, a 7-year capital improvement program, a program for analyzing land use decisions, and transportation demand management (TDM) strategies.[53] A total of 53 roadway segments and 16 intersections were monitored as part of the CMP Network in San Mateo County.

3.5.3.1.4 Local

Redwood City General Plan 2010

Adopted on October 11, 2010, the Redwood City General Plan is a comprehensive plan built around a series of key goals, policies, and programs for long-term physical development of the community.[54] The General Plan establishes the basis for zoning regulations and guides the evaluation of development proposals. Additionally, it creates the framework for economic development, transportation improvements, and balancing residents' desires regarding sustainability, City services, parks, and cultural and historic preservation. The General Plan goals, policies, and programs that are relevant to energy are primarily in the Public Safety, Natural Resources, and Built Environment Elements.

The key energy goals and policies of the General Plan relevant to this analysis of the proposed project are included in **Table 3.5-1**.

[52] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[53] City/County Association of Governments of San Mateo County. October 2023. 2023 San Mateo County Congestion Management Program. Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf.

[54] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

Table 3.5-1 Key Energy Policies and Strategies in the Redwood City General Plan

Goal/Policy Number	Goal/Policy Text
Public Safety Element	
Policy PS-1.3	Pursue efforts to reduce air pollution and GHG emissions by promoting the use of renewable energy (e.g., solar, wind, and hydroelectric power), and implement effective energy conservation and efficiency measures.
Natural Resources Element	
Goal NR-4:	Maximize energy conservation and renewable energy production in Redwood City to reduce consumption of natural resources and fossil fuels.
Policy NR-4.4	Pursue efforts to reduce energy consumption through appropriate energy conservation and efficiency measures throughout all segments of the community.
Built Environment Element	
Policy BE-22.2	Apply the following performance criteria and standards, as applicable, to all new development projects, with the level of application commensurate with the scale of development: ▪ The development must result in a net positive fiscal impact to the City unless the City Council identifies unique circumstances for waiving this requirement. ▪ Adequate long-term water supplies must be available to serve the new development without impinging upon service to established and approved uses and developments. Adequacy must be fully documented to the satisfaction of the responsible City departments. ▪ The City's adopted service standards for pedestrian, bicycle, public transit usage, and motorized vehicle mobility must be achieved. Any circulation improvements or programs needed to maintain the established level of service standard must be programmed and funding committed for construction or implementation at the appropriate time. ▪ New development must plan for access to public transportation, including the potential streetcar system, transportation hub, and ferry terminal, as appropriate. ▪ Limit new development within the floodplain or ensure new development incorporates extra precautions into the site and building design to account for floodplain location. ▪ Storm drain, sewerage, and similar infrastructure improvements necessary to serve the development must be fully funded at the appropriate time, and any such improvements shall not place burdens upon nor otherwise impact tributary facilities. ▪ Sufficient measures must be incorporated into project design and fully funded at the appropriate time to provide adaptation to and/or guard against potential damage from anticipated rises in sea levels. ▪ Minimize direct or indirect impact to sensitive biological resources while optimizing the potential for mitigation. ▪ Uses proposed must clearly be compatible with surrounding established and planned uses. ▪ Development must support the City's vision for the district or area in which it is proposed to be located. ▪ Development must incorporate sustainability features, including features that minimize energy and water use, limit carbon emissions, provide opportunities for local power generation and food production, and provide areas for recreation. ▪ The development must provide a measurable and/or clearly identifiable community benefit in the form of affordable housing, jobs generation, available parkland or open space, environmental hazard protection, and/or other criteria established by the City. ▪ Require new development to pay its fair share of the cost of public facilities, services, and infrastructure, including but not limited to transportation, incremental water supply, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation. Allow for individual affordable housing projects to be exempted from the full cost of impact fees, subject to meeting specified criteria.
Policy BE-24.9	Promote the use of locally shared solar, wind, and other alternative energy generation systems as part of new planned developments.
Policy BE-24.12	Seek energy demand reductions in both residential buildings and large industrial and commercial buildings, where reductions by a single user could have a large effect.

Goal/Policy Number	Goal/Policy Text
Goal BE-43	Support reliable, high quality, and environmentally sound energy distribution systems to meet current and future needs.
Policy BE-43.1	Require that improvements and maintenance to electric and gas transmission and distribution systems that are made to accommodate new growth be performed in a manner that maintains safety, reliability, and environmental compatibility.
Policy BE-43.2	Support efforts to increase the use of renewable energy and low emission power sources. Encourage the installation and construction of renewable energy systems and facilities such as wind, solar, hydropower, geothermal, and biomass facilities.
Policy BE-43.3	Accommodate alternative energy infrastructure as new technology evolves.

Source: City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Redwood City Climate Action Plan

Adopted in November 2020, the Climate Action Plan (CAP) is a comprehensive strategy to reduce GHG emissions through aggressive policies and adoption of clean technologies.[55] The CAP focuses on municipal operations as well as issues in the community, including how residents, organizations, and businesses can contribute to Redwood City's emission reduction goals. The City's CAP GHG reduction goal is to reduce carbon emissions 50 percent below 2005 levels by 2030, an interim step toward the ultimate goal of achieving Statewide target of carbon neutrality well before 2045. The CAP outlines specific measures to reduce GHG emissions from four strategies: energy and water, transportation and land use, solid waste, and food and consumption. The CAP also outlines an implementation and monitoring program to ensure that emissions targets are met. Overall, this CAP documents how Redwood City plans to collaborate with partners in county, State, and federal government, along with community organizations and local businesses, to create new programs, services, and policies that will support the community in taking actions that reduce GHG emissions and energy consumption. The key CAP goals relevant to energy impacts and to this analysis of the proposed project are outlined below:

- Goal EW.1: Reduce energy emissions.
- Goal EW.2: Electrify building stock.
- Goal EW.3: Reduce water consumption.
- Goal T.1: Reduce vehicle miles traveled.
- Goal T.2: Increase housing in transit corridors.
- Goal T.3: Increase walkability and bikeability.
- Goal T4: Decarbonize transportation.

City of Redwood City Municipal Code

The City of Redwood City Municipal Code (Redwood City Municipal Code) includes various directives pertaining to energy. Most provisions related to energy are included in Chapter 9, Buildings.

[55] City of Redwood City. November 2020. Climate Action Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/22781/637426822669070000.

- Article IV, Adoption of 2022 State Codes, adopts the 2022 California Building Standards, Electric, and Energy Code.
- Article XIII, Electrical Vehicle Charging Stations, outlines the requirements and application standards for EV charging stations imposed by State and local permitting authorities.
- Article XV, Amendments to 2022 California Green Building Standards Code, reflects amendments to the 2022 California Green Building Standards Code including mandatory EV charging infrastructure for new construction and energy efficiency standards. Section 9.258 of the Redwood City Municipal Code states that all new constructed buildings shall be all-electric. However, this provision is currently unenforceable; on April 17, 2023, the Ninth Circuit Court of Appeals ruled in *California Restaurant Association v. City of Berkeley,* thereby invalidating a Berkeley, California ordinance prohibiting natural gas infrastructure in newly-constructed buildings and holding it preempted by Section 6297(c) of the federal Energy Policy and Conservation Act (EPCA).

3.5.3.2 Existing Conditions

Electricity and Natural Gas

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh), and natural gas is measured in British thermal units (BTUs). The volumetric billing unit used for natural gas delivered to customers is typically expressed in hundreds of cubic feet (Ccf)—approximately one kilo-BTU (kBTU) per Ccf—or thousands of cubic feet (Mcf)—approximately 1,037 kBTU per Mcf.[56] A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for one hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. According to the CEC's "Tracking Progress" regarding Statewide energy demand, total electric energy usage in California was 287,826 gigawatt hours in 2022.[57] A gigawatt is equal to one million kilowatts.

Energy Providers

Two energy providers, PCE and Pacific Gas & Electric (PG&E), serve end-users in Redwood City, as described below.

Peninsula Clean Energy

PCE was created as a Community Choice Aggregation (CCA) program in 2016 by San Mateo County, including all of its cities and towns, and the City of Los Banos later joined in 2020.[58] PCE aims to provide electricity that is 100 percent renewable or carbon-free by 2025. PCE provides two different production options for electricity: ECOplus and ECO100.

Sources of electricity sold by PCE under the ECOplus plan in 2023, the latest year for which data are available, were:[59]

[56] U.S. Energy Information Administration. 2024. Frequently Asked Questions (FAQs) webpage. Available: https://www.eia.gov/tools/faqs/faq.php?id=45&t=7. Accessed March 12, 2024.
[57] California Energy Commission. 2016. Electricity Consumption by Planning Area. Accessed March 12, 2024.
[58] Peninsula Clean Energy. 2024. Background webpage. Accessed March 12, 2024.
[59] Peninsula Clean Energy. 2024. Power Mix. Available: https://www.energy.ca.gov/filebrowser/download/9147. Accessed March 12, 2024.

- 52.3 percent renewable, consisting mostly of solar and wind; and
- 47.7 percent large hydroelectric.

Customers are automatically enrolled in ECOplus but have the option of opting up to ECO100, which provides 100 percent renewable and carbon-free electricity.[60] Conversely, customers have the option to opt-out of PCE renewable energy sources and receive their energy service from PG&E; however, PCE's opt-out rate is approximately 2.5 percent.[61] PCE supplies electricity and PG&E delivers it to PCE customers. PG&E is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies within the PCE service area.

Pacific Gas & Electric Company

Electricity

PG&E is a publicly traded utility company which generates, purchases, and transmits energy and natural gas under contract with the CPUC. PG&E's service territory is 70,000 square miles, roughly extending north to Eureka, south to Bakersfield, west to the Pacific Ocean, and east to the Sierra Nevada mountain range. PG&E's electricity distribution system consists of 106,681 circuit-miles of electric distribution lines and 18,466 circuit-miles of interconnected transmission lines.[62] PG&E owns and maintains above-ground networks of electric transmission and distribution facilities throughout Redwood City.

PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, also known as solar farms. The bulk electric grid (collectively referred to as "The Grid") is a network of high-voltage transmission lines, linked to power plants within the PG&E system. The distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.

In 2022, approximately 38 percent of PG&E's energy generated came from renewable resources including biopower, geothermal, small hydroelectric, solar, and wind power. PG&E's portfolio consisted of 49 percent nuclear generation, 8 percent large hydroelectric facilities, and 5 percent natural gas.[63]

PG&E and PCE together provide electrical services to users in Redwood City. PG&E is the sole provider for natural gas services in the City. PG&E provides distribution of electrical services in the City, while PCE provides the electrical commodity. PCE works in conjunction with PG&E to provide electricity to consumers through the use of PG&E's distribution infrastructure and network. Both utilities are regulated by the CPUC.

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[60] Peninsula Clean Energy. 2024. Energy Choices. Available: https://www.peninsulacleanenergy.com/energy-choices/. Accessed March 12, 2024.

[61] EQ Research. February 13, 2019. Ten Things to Know about CCAs in California. Available: https://eq-research.com/blog/ten-things-ca-ccas/.

[62] Pacific Gas & Electric Company. 2024. Company Profile webpage. Available: https://www.pge.com/en/about/company-information/company-profile.html. Accessed March 12, 2024.

[63] Pacific Gas & Electric Company. 2024. Clean Energy Solutions webpage. Available: https://www.pge.com/en/about/corporate-responsibility-and-sustainability/taking-responsibility/clean-energy-solutions.html#:~:text=The%20power%20mix%20delivered%20to,Large%20hydroelectric%20facilities%20(8%25). Accessed March 12, 2024.

Natural Gas

PG&E gas transmission pipeline systems serve approximately 4.5 million gas customers in northern and central California.[64] The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. PG&E also adopted Pipeline 2020 program, which aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders. Total natural gas consumption in PG&E's service area was approximately 442 billion kBTU for 2022.[65]

Existing Electricity and Natural Gas

The existing electricity and natural gas demand in the project region consists of San Mateo County, San Francisco County, and Alameda County. As shown in **Table 3.5-2**, in 2022 (the latest year for which data are available as of this writing), the tri-county area experienced a nonresidential per capita electricity consumption rate of 4,140 kWh per person per year and a per capita natural gas consumption rate of 10,600 kBTU per person per year. It should be noted that Counties' nonresidential energy consumption rates were retrieved to characterize existing nonresidential energy consumption because that is the smallest scale at which energy consumption estimates are publicly available. The proposed project would not include any residential energy consumption; therefore, only nonresidential energy consumption was identified to illustrate existing conditions.

Table 3.5-2 Tri-County Area Estimated Existing Electricity and Natural Gas Demand

Land Use	Electricity Usage (kWh per year)[1]	Natural Gas Usage (kBTU per year)[2]
San Mateo County		
Nonresidential	2,580,775,624	9,004,510,100
San Francisco County		
Nonresidential	3,605,703,411	8,619,747,100
Alameda County		
Nonresidential	7,199,918,113	16,690,743,500
Total	**13,386,397,148**	**34,315,000,700**
Tri-County Area Population[3]	3,233,475	3,233,475
Per Capita Consumption	**4,140**	**10,600**

Notes:
[1] Based on electricity consumption for year 2022. California Energy Commission (CEC). 2016. Electricity Consumption by County. Accessed June 9, 2025.
[2] Based on natural gas consumption for year 2022. California Energy Commission (CEC). 2016. Gas Consumption by County. Accessed June 9, 2025.
[3] Based on population estimates for year 2022. California Department of Finance (DOF). 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2025, with 2020 Benchmark.
Key: kWh = kilowatt-hour; kBTU = kilo-British thermal unit; 1 kBTU = 0.01 therm

[64] Pacific Gas & Electric Company. 2024. Company Profile webpage. Available: https://www.pge.com/en/about/company-information/company-profile.html. Accessed March 12, 2024.
[65] California Energy Commission. 2024. Gas Consumption by Entity webpage. Accessed March 12, 2024.

Fuel Consumption

The CEC produces a California Annual Retail Fuel Outlet Report every year, which is a compilation of gasoline and diesel fuel sales across the State, available at the county level. As shown in **Table 3.5-3**, the tri-county area experienced a consumption rate of 282 gallons of fuel per person per year in 2022. While 2023 data is available, 2022 fuel consumption data is provided herein for consistency with the existing natural gas and electricity data provided in **Table 3.5-2**.

Table 3.5-3 Tri-County Area Existing Transportation Fuel Consumption

Parameter	Fuel Consumption (gallons per year)[1]
San Mateo County	
Transportation Fuel Consumption	280,000,000
San Francisco County	
Transportation Fuel Consumption	103,000,000
Alameda County	
Transportation Fuel Consumption	530,000,000
Total	**913,000,000**
Tri-County Area Population[2]	3,233,475
Per Capita Consumption	**282**

Notes:
[1] Based on estimated fuel consumption for year 2022. California Energy Commission (CEC). 2025. 2023 California Annual Retail Fuel Outlet Report Results (CEC-A15). Available: https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed June 9, 2025.
[2] Based on population estimates for year 2022. California Department of Finance (DOF). 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2025, with 2020 Benchmark.

3.5.4 Thresholds of Significance

The proposed project would result in significant impacts associated with energy if it would:

Impact 3.5-1 Result in significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Impact 3.5-2 Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.5.5 Project Impacts

3.5.5.1 Impact 3.5-1

Impact 3.5-1: Would the proposed project result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

3.5.5.1.1 Construction

3.5.5.1.1.1 Ferry Terminal

Electricity

The only existing electricity utilities at the project site are a connection to electrical power at the CEMEX marine terminal to run security lights and a fiber connection to the Port of Redwood City (Port) office to run security cameras. These existing connections would be abandoned under the proposed project. The

project site would require new electricity connections to the existing network to serve the ferry terminal. Electricity for the interim portable restroom would connect to the new site utilities. Lighting would be provided at the access pier, gangway and float, passenger waiting area, and the parking lot and access road. Construction of the ferry terminal would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment used during demolition and grading would be gasoline- or diesel-powered. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Additionally, the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Therefore, construction activities for the ferry terminal would not result in wasteful, inefficient, or unnecessary electricity consumption, and the impact would be less than significant.

Natural Gas

Construction equipment used for the ferry terminal would be gasoline- or diesel-powered, and no natural gas demand would occur during construction. There are no existing natural gas facilities within the project site, and new natural gas connections would not be required for the ferry terminal. Therefore, construction of the ferry terminal would have no impact on natural gas consumption.

Transportation Fuels

Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel, gasoline, and/or electricity. The use of energy resources by these vehicles would fluctuate according to the phase of construction. The majority of off-road construction equipment, such as those used during demolition and grading, would be gasoline- or diesel-powered. To limit wasteful and unnecessary energy consumption, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9. Thus, impacts related to transportation energy use during construction of the ferry terminal would not require expanded energy supplies or the construction of new infrastructure. In addition, the use of all construction equipment would cease upon completion of project construction.

Transportation fuel consumption during construction of the ferry terminal (2025 through 2026) was calculated using CalEEMod, version 2022.1, and data from the EMFAC2021 v1.0.2 and OFFROAD2021 v.1.0.5 databases. The results are shown in **Table 3.5-4**.

Table 3.5-4 Ferry Terminal Construction-Related Transportation Fuel Usage

Source[1]	Gasoline (gallons)	Diesel (gallons)	Electricity (kWh)
Construction Worker Commute	2,010	3	1,346
Construction Vendor Trips	631	5,451	0
Construction Truck Haul Trips	34	2,022,102	0
Construction Off-Road Equipment	342	82,657	0
Total	**3,017**	**2,110,214**	**1,346**

Source: PlaceWorks, 2025.
Note:
[1] See Appendix B of this Draft EIR for on-road and off-road fuel usage calculations.
Key: kWh = kilowatt-hour

It is assumed that the construction off-road equipment would be well maintained and meet the appropriate tier ratings per USEPA emissions standards so that energy efficiency level is achieved. Construction trips would not result in wasteful, inefficient, or unnecessary on-road vehicle fuel usage since the project area is centrally located and served by numerous regional freeway systems (e.g., US-101, SR-84) that provide the most direct routes from various areas of the region. Thus, transportation fuel use during construction of the ferry terminal would not be wasteful, inefficient, or unnecessary, and the impact would be less than significant.

3.5.5.1.1.2 Visitor-Serving Uses

Electricity

The existing connections would be abandoned under the proposed project and new electric lines established at the project site during construction of the ferry terminal would need to be expanded to serve the visitor-serving uses' operation. Construction of the visitor-serving uses would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment used during grading and utility trenching would be gasoline- or diesel-powered, and the later construction phases would require electric-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Additionally, the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Therefore, construction activities for the visitor-serving uses would not result in wasteful, inefficient, or unnecessary electricity consumption, and the impact would be less than significant.

Natural Gas

New natural gas lines would be established at the project site during construction to serve the visitor-serving uses. However, construction equipment used for the visitor-serving uses would not be powered by natural gas, and no natural gas demand would occur during construction. Therefore, construction of the visitor-serving uses would have no impact on natural gas consumption.

Transportation Fuels

Similar to the ferry terminal construction, transportation energy use during construction of the visitor-serving uses would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel, gasoline, and/or electricity.

The use of energy resources by these vehicles would fluctuate according to the phase of construction. The majority of off-road construction equipment, such as those used during grading and utility trenching, would be gasoline- or diesel-powered. To limit wasteful and unnecessary energy consumption, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9. Thus, impacts related to transportation energy use during construction of the visitor-serving uses would not require expanded energy supplies or the construction of new infrastructure. In addition, the use of all construction equipment would cease upon completion of project construction.

Transportation fuel consumption during construction of the visitor-serving uses (2026 through 2028) was calculated using CalEEMod, version 2022.1, and data from the EMFAC2021 v1.0.2 and OFFROAD2021 v.1.0.5 databases. The results are shown in **Table 3.5-5**. Transportation fuel consumption associated with raising the project site elevation is assumed as part of the ferry terminal project component as discussed above.

Table 3.5-5 Visitor-Serving Uses Construction-Related Transportation Fuel Usage

Source[1]	Gasoline (gallons)	Diesel (gallons)	Electricity (kWh)
Construction Worker Commute	13,857	21	10,504
Construction Vendor Trips	1,766	15,153	0
Construction Off-Road Equipment	287	43,822	0
Total	**15,911**	**58,996**	**10,504**

Source: PlaceWorks, 2025.
Notes:
[1] See Appendix B of this Draft EIR for on-road and off-road fuel usage calculations.
Key: kWh = kilowatt-hour

It is assumed that the construction off-road equipment would be well maintained and meet the appropriate tier ratings per CALGreen or USEPA emissions standards so that energy efficiency level is achieved. Construction trips would not result in wasteful, inefficient, or unnecessary on-road vehicle fuel usage since the project area is centrally located and served by numerous regional freeway systems (e.g., US-101, SR-84) that provide the most direct routes from various areas of the region. Thus, transportation fuel use during construction of the visitor-serving uses would not be wasteful, inefficient, or unnecessary, and the impact would be less than significant.

3.5.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, during construction there would be a temporary increase in energy consumption due to construction activities and off- and on-road transportation fuel consumption during project construction. However, this increase in energy consumption would be small compared to the energy used by the operations of the proposed project during its useful life. Furthermore, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per CALGreen or USEPA emissions standards so that energy efficiency level is achieved. Therefore, construction of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction; the impact would be less than significant.

3.5.5.1.2 Operations

Operation of the ferry terminal would result in the consumption of electricity and fuel for vehicle transportation and ferry vessels; natural gas usage would not be required for operation of the ferry terminal. Operation of the visitor-serving uses would result in the consumption of building energy use (electricity and natural gas), electricity from street lighting, and fuel from vehicle transportation.

3.5.5.1.2.1 Ferry Terminal

Electricity

Electrical service to the project site would be provided by PG&E and PCE through connections to existing off-site and on-site electrical lines and new on-site infrastructure. As shown in **Table 3.5-6**, there would be an increased demand for electricity associated with new lighting sources and EV charging stations. However, as further described in the discussion of transportation fuels below, the reduction in VMT associated with the ferry terminal would reduce vehicle fuel needs of all types, including electricity. Overall, electricity consumption for operations of the ferry terminal would total an estimated net increase of 588,223 kWh annually after accounting for street lighting, ferry terminal vehicle trips, on-site charging and other energy demand, and forgone regional vehicle demand.

Table 3.5-6 Ferry Terminal Annual Operational Electricity Consumption

Operational Electricity Usage	Electricity (kWh)
Ferry Terminal Electricity	
Street Lights and Parking Lights	19,026
Pole Lights on Pier	1,513
Ferry Float	75,000
Restroom Load	34,599
EV Charging Stations	761,025
Miscellaneous Electrical Load	2,768
Subtotal	**893,931**
Passenger Vehicle Electricity[1]	
Passenger Vehicles	(305,708)
Ferry Terminal and Transportation Total	**588,223**

Source: Appendix B of this Draft EIR.
Note: Estimates in parentheses represent negative numbers.
[1] Passenger vehicles account for the foregone VMT associated with operation of the ferry terminal.
Key: kWh = kilowatt-hour

The ferry terminal would comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. Additionally, the dimensions of the float would include space to accommodate future electric vessel charging infrastructure and an on-site BES system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. While the proposed project may include a future BES system should electrification be the future technology used to transition the Redwood City route to ZEVs, it is unknown at this time whether the Port would be required to file an interconnection request with CAISO and the local power provider (PG&E or PCE) to identify infrastructural improvements necessary to support the proposed project's design and establish a cost-sharing agreement.

As described above, overall electricity demand during operation of the ferry terminal would not result in wasteful, inefficient, or unnecessary electricity consumption. The impact would be less than significant.

Transportation Fuels

The use of motor vehicles and ferry vessels during operation of the ferry terminal would consume transportation fuels. This analysis quantifies transportation energy use using overall VMT for the ferry terminal, average basin wide fuel efficiencies, and average basin wide fleet mix (see **Table 3.5-7**). The annual VMT for the ferry terminal is estimated to be a net reduction of 11,945,200 miles per year based on operation of the ferry terminal 365 days per year and daily VMT (see Appendix H, Transportation Study Report, of this Draft EIR). This net reduction of VMT would result in a corresponding decrease in transportation fuel usage for all fuels except for diesel, which would increase due to the fuel demand from operation of the ferries, as shown in **Table 3.5-7**.

While the ferries would idle at the berth during 10-minute embarking/disembarking, WETA's ferry fleet uses renewable diesel fuel. Newer vessels are compliant with USEPA Tier 4 emission standards which require the cleanest combustion engines and are equipped with diesel particulate filters, and older vessels are being upgraded under WETA's Commercial Harbor Craft Alternative Control of Emissions Plan[66] to achieve Tier 4 standards with diesel particulate filters where feasible. The 320-passenger vessels that would serve the proposed routes are currently operating with Tier 4 main engines. To comply with CARB requirements, WETA is preparing for a phased transition of its ferry fleet from diesel operated ferries to ZEVs.[67] Once the existing vessels that would operate on the Redwood City routes reach the end of their useful life (approximately 25 years), the current vessels in the San Francisco Bay Ferry fleet would be replaced with ZEVs. However, because there is no feasible ZEV technology currently available for ferries to serve the proposed Redwood City routes, the use of diesel ferries is assumed for ferry operations over the life of the project for purposes of this environmental analysis to present a conservative evaluation. This assumes compliance with USEPA's Tier 4 emission standards and use of renewable diesel, consistent with current WETA operations.

[66] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

[67] WETA. January 2023. Blueprint for Zero Emission Vessel Transition. Available: https://sanfranciscobayferry.com/wetas-transition-to-zero-emission-ferries/.

Table 3.5-7 Ferry Terminal Annual Operation-Related Transportation Fuel Usage

	Gasoline		Diesel		Compressed Natural Gas		Electricity		Total VMT
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh	
Passenger Vehicles	(11,022,046)	(403,798)	(94,634)	(4,733)	(3,406)	(486)	(825,114)	(305,708)	(11,945,200)
Ferry Vessels	0	0	0	2,828,360	0	0	0	0	-
Total	(11,022,046)	(403,798)	(94,634)	2,823,627	(3,406)	(486)	(825,114)	(305,708)	(11,945,200)

Source: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.5. Appendix B of this Draft EIR.
Note: Passenger vehicles account for the foregone VMT associated with operation of the ferry terminal. Estimates in parentheses represent negative numbers.

Additionally, because of State and federal vehicle fuel efficiency standards, the average fuel efficiency for vehicles used by employees or visitors to the ferry terminal would improve with each year as older and less fuel-efficient vehicles are retired and replaced with newer, more fuel-efficient vehicles or vehicles powered by alternative fuel sources (e.g., electricity or hydrogen). Furthermore, the ferry service would be a commute-period service, providing three to four trips during both AM and PM peak periods on weekdays. Therefore, passengers using the ferry vessels for transportation would reduce the number of people who would typically use passenger vehicles to commute to different areas outside of Redwood City on a daily basis. As discussed in Section 2.5.4.1 in Chapter 2, Project Description, of this Draft EIR, the proposed ferry terminal may accommodate a 20-percent increase in ferry services in response to increased ridership demand in the future. Therefore, the ferry vessel fuel consumption estimates contained in **Table 3.5-7** reflect a 20-percent increase in annual vessel operating hours and therefore a 20-percent increase in diesel fuel consumption. However, due to the uncertainty of this potential 20-percent increase in the future, which would result in comparable reductions in passenger vehicle VMT and fuel consumption, this 20-percent increase in ferry service was not accounted for in the foregone passenger vehicle fuel consumption to provide a conservative assessment of net transportation energy consumption.

Other project features that would help reduce transportation-related fuel usage include Seaport Boulevard roadway improvements, a location for general public passenger drop-offs and pick-ups, shuttle service to the ferry terminal, EV charging infrastructure in the parking lot, improved bicycle/pedestrian network connections, and secure short- and long-term bicycle parking on-site. Additionally, the dimensions of the float would include space to accommodate EV charging infrastructure and an on-site BES system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future.

These features and aspects of the ferry terminal would promote alternative modes of transportation, contribute to minimizing VMT, and reduce transportation-related fuel usage and VMT. Operation of the ferry terminal would therefore not result in wasteful, inefficient, or unnecessary fuel consumption. The impact would be less than significant.

3.5.5.1.2.2 Visitor-Serving Uses

Electricity and Natural Gas

The project site would require new electricity and natural gas connections to the existing utility network to serve the visitor-serving uses. Electrical service to the project site would be provided by PG&E and PCE through connections to existing off-site and on-site electrical lines and new on-site infrastructure. Natural gas service to the project site would be provided by PG&E. As shown in **Table 3.5-8**, energy consumption for operation of the visitor-serving uses would total an estimated electricity demand of 2,343,630 kWh and an estimated natural gas demand of 8,353,392 kBTU annually.

Table 3.5-8 Visitor-Serving Uses Annual Operational Electricity and Natural Gas Consumption

Operational Energy Usage	Electricity (kWh)	Natural Gas (kBTU)
Building Electricity and Natural Gas		
Hotel	1,189,769	5,417,471
Restaurant	907,576	2,698,419
Office Space	211,686	237,503
Permanent Restroom	34,599	-
Visitor-Serving Uses Total	**2,343,630**	**8,353,392**

Source: Appendix B of this Draft EIR.
Note: Totals may not add due to rounding.
Key: kWh = kilowatt-hour; kBTU = thousand British Thermal Units

The visitor-serving uses would comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements, which would decrease energy consumption. Moreover, all utilities serving the City would be required to comply with the State's RPS, which mandates utilities to procure a certain proportion of electricity from eligible renewable and carbon-free sources and increase the proportion through the coming years with an ultimate procurement requirement of 100 percent by 2045. The RPS requirements would support the use of electricity by the visitor-serving uses that are generated from renewable or carbon-free sources.

Overall, operation of the visitor-serving uses would generally be consistent with the goals outlined in Appendix F of the CEQA Guidelines regarding increasing energy efficiency, decreasing reliance on fossil fuels, and increasing renewable energy sources. As such, impacts would be less than significant.

Transportation Fuels

The project would consume transportation energy during operations from the use of motor vehicles traveling to and from the project site. The efficiency of motor vehicles used over the project's lifetime, such as the average miles per gallon for motor vehicles that would be used by future employees, service and delivery trucks, and visitors visiting the project site, is unknown. However, this analysis quantifies transportation energy use using overall VMT, average basin wide fuel efficiencies, and average basin wide fleet mix (see **Table 3.5-9**). As shown in **Table 3.5-9**, the annual VMT for the visitor-serving uses is estimated to be 11,232,400 miles per year based on operation of the visitor-serving uses 347 days per year and the project's daily VMT (see Appendix H, Transportation Study Report, of this Draft EIR).

Similar to the ferry terminal component, because of State and federal vehicle fuel efficiency standards, the average fuel efficiency for vehicles used by employees or visitors to the visitor-serving uses would improve with each year as older and less fuel-efficient vehicles are retired and replaced with newer, more fuel-efficient vehicles or vehicles powered by alternative fuel sources (e.g., electricity or hydrogen).

Overall, the operation-related transportation fuel usage associated with the visitor-serving uses would not result in wasteful, inefficient, or unnecessary fuel consumption; therefore, the impact would be less than significant.

Table 3.5-9 Visitor-Serving Uses Annual Operation-Related Transportation Fuel Usage

	Gasoline		Diesel		Compressed Natural Gas		Electricity		Total VMT
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh	
Passenger Vehicles	10,075,744	376,533	304,833	32,316	10,126	1,662	841,697	306,375	11,232,400
Total	10,075,744	376,533	304,833	32,316	10,126	1,662	841,697	306,375	11,232,400

Source: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.5. See Appendix B of this Draft EIR.

3.5.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, operation of the proposed project would increase energy consumption associated with mobile vehicle and ferry vessel sources, street lighting, EV charging infrastructure, and building energy uses.

As shown in **Table 3.5-10**, electricity consumption would total an estimated 3,238,228 kWh annually after accounting for the ferry terminal, building electricity demand, and EV electricity demand. Natural gas consumption would total an estimated 8,353,392 kBTU annually after accounting for the visitor-serving uses.

Assuming a daily weekday service population of 3,625, which includes 1,470 ferry riders[68] and 2,155 visitor-serving uses employee and visitors,[69] the proposed project would consume electricity from operation of the ferry terminal and visitor-serving uses and natural gas from operation of the visitor-serving uses at a per capita rate that is lower than the tri-county area average (see **Table 3.5-2**). The natural gas consumption rate would be lower than the tri-county average of 10,600 kBTU per person, and the proposed project would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards, which would further decrease natural gas consumption from what is shown in **Table 3.5-10**. Therefore, the project would not result in wasteful, inefficient, or unnecessary natural gas consumption.

Table 3.5-10 Proposed Project Operational Annual Electricity and Natural Gas Consumption

Operational Energy Usage	Electricity (kWh)	Natural Gas (kBTU)[1]
Ferry Terminal and EV Charging Subtotal[2]	588,223	-
Visitor-Serving Uses Subtotal	2,650,005	8,353,392
Subtotal	**3,238,228**	**8,353,392**
Per Capita Electricity and Natural Gas Consumption		
Proposed Project	893	2,330
Tri-County Area Average[3]	4,140	10,600

Source: Appendix B of this Draft EIR.
Notes:
[1] Transportation compressed natural gas estimates are not shown in this table as the tri-county average estimates do not account for transportation natural gas consumption.
[2] The fuel consumption per capita is based on an estimated weekday ferry ridership of 1,470 and 2,155 visitor-serving uses employee and visitors (refer to Appendix H, Transportation Study Report, of this Draft EIR). This estimate is conservative since it does not consider growth in ferry ridership and it assumes that of 4,310 daily weekday person trips to the visitor-serving uses (see Appendix H), half of those trips would be trips by the same population, and the total number of daily visitors and employees to the site would be 2,155.
[3] Tri-county area average per capita consumption is drawn from **Table 3.5-2**.
Key: kWh = kilowatt-hour; kBTU = thousand British Thermal Units

Based on the estimated weekday service population of 3,625 as described above, the project's per capita fuel consumption (e.g., gasoline, diesel) would result in an average annual net consumption of 780 gallons

[68] Ferry ridership would increase over time, reaching 3,690 in 2040. The initial ridership of 1,470 is used in this analysis to provide a conservative per capita average. Refer to Appendix H, Transportation Study Report, of this Draft EIR.
[69] The Transportation Study Report (Appendix H) assumes 4,310 daily weekday person trips to the visitor-serving uses. This does not account for people who may visit the site multiple times throughout the day. To provide a conservative per capita average, it is assumed that the half of the 4,310 person trips would be trips by the same population, and the total number of daily visitors and employees to the site would be 2,155.

per person.[70] As shown in **Table 3.5-11**, the proposed project would consume fuel at a per capita rate that is higher than the tri-county area average. Nonetheless, the proposed project includes various project features to help reduce transportation-related fuel usage including roadway improvements, EV charging infrastructure, and bicycle storage. The average fuel efficiency for vehicles used by employees or visitors to the project site would improve each year as older vehicles are retired and more fuel efficient vehicles are acquired by the public, and the ferry service would provide an alternative mode of transportation for commuters to and from Redwood City. Further, ferry ridership would increase over time which would reduce fuel consumption overall and also lower the average per capita fuel consumption for the proposed project. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project operation. The impact would be less than significant.

Table 3.5-11 Proposed Project Operational Transportation Fuel Consumption

Parameter	Gallons of Fuel[1]
Ferry Terminal Transportation[2]	2,419,829
Visitor-Serving Uses Transportation	408,849
Subtotal	**2,828,678**
Per Capita Transportation Fuel Consumption	
Proposed Project	780
Tri-County Area Average	282

Source: Appendix B of this Draft EIR.
Notes:
[1] Fuel estimates include gasoline and diesel. Compressed natural gas is not included in this table for comparison against the tri-county average estimates as the tri-county data does not include transportation natural gas consumption. Electricity consumption that would occur on-site from EV charging is included in **Table 3.5-10**.
[2] The fuel consumption per capita is based on an estimated weekday ferry ridership of 1,470 and 2,155 visitor-serving uses employee and visitors (refer to Appendix H, Transportation Study Report, of this Draft EIR). This estimate is conservative since it does not consider growth in ferry ridership and it assumes that of 4,310 daily weekday person trips to the visitor-serving uses, half of those trips would be trips by the same population, and the total number of daily visitors and employees to the site would be 2,155.
Key: VMT = vehicle miles traveled.

As described above, for construction of the proposed project, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per CALGreen or USEPA emissions standards. During operations, the proposed project would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards. Further, ferry ridership would increase over time which would reduce fuel consumption overall and also lower the average per capita fuel consumption for the proposed project.

Therefore, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The impact would be less than significant.

3.5.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

[70] This consumption rate is conservative since it does not take into account the increased ferry ridership that would occur over time and it assumes that of 4,310 daily weekday person trips to the visitor-serving uses, half of those trips would be trips by the same population, and the total number of daily visitors and employees to the site would be 2,155.

3.5.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.5.5.2 Impact 3.5-2

Impact 3.5-2: Would the proposed project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

3.5.5.2.1 Construction

3.5.5.2.1.1 Ferry Terminal

As discussed under **Section 3.5.5.1.1**, construction of the ferry terminal would not require electricity to power most construction equipment, and no natural gas demand would occur during construction. It is assumed that the construction equipment would be well maintained in accordance with CALGreen and meet the appropriate tier ratings pursuant to USEPA emissions standard so that energy efficiency is achieved consistent with relevant applicable State and local plans.

Vehicles used by construction workers are assumed to be predominantly gasoline or diesel fueled. While a number of temporary construction-related jobs would be created, given that the project area is in a well-established urban community with a large housing base and housing stock, new employment demand from project construction would be met within the existing and future labor market in the City and the greater San Francisco Bay area and would not entail worker relocation. Because no worker relocation is anticipated, construction of the ferry terminal would not result in increased VMT or population growth that could interfere with implementation of renewable energy initiatives. Further, as discussed under Impact 3.5-1 above, construction-related trips would not result in unnecessary use of energy since the project area is centrally located and is served by numerous regional freeway systems (e.g., US-101, SR-84). Construction of the ferry terminal would not conflict with or obstruct an applicable plan for renewable energy or energy efficiency, and the impact would be less than significant.

Redwood City Climate Action Plan

The ferry terminal would be constructed in accordance with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. During construction, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per USEPA emissions standards. Additionally, the amount of electricity used during construction would be minimal as the majority of construction equipment would be gasoline- or diesel-powered. To limit wasteful and unnecessary fuel consumption, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9.

The City's CAP includes goals that promote energy efficiency and energy conservation in project design; however, none of the goals or policies therein apply directly to construction activities. Nonetheless, compliance with the above regulations would minimize construction-related energy consumption. Therefore, construction of the ferry terminal would be aligned with the energy efficiency and energy conservation goals of the City's CAP. Construction of the ferry terminal would not conflict with or obstruct the City's CAP with respect to renewable energy or energy efficiency; the impact would be less than significant.

Redwood City General Plan

As mentioned above, the ferry terminal would be constructed in accordance with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. During construction, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per USEPA emissions standards. Additionally, the amount of electricity used during construction would be minimal as the majority of construction equipment would be gasoline- or diesel-powered. To limit wasteful and unnecessary fuel consumption, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9.

The City's General Plan includes goals and policies that promote energy efficiency and energy conservation in project design; however, none of the goals or policies therein apply directly to construction activities. Nonetheless, compliance with the above regulations would minimize construction-related energy consumption. Therefore, construction of the ferry terminal would be aligned with the energy efficiency and energy conservation goals and policies of the City's General Plan. Construction of the ferry terminal would not conflict with or obstruct the City's General Plan with respect to renewable energy or energy efficiency; the impact would be less than significant.

3.5.5.2.1.2 Visitor-Serving Uses

As discussed under **Section 3.5.5.1.1**, construction of the visitor-serving uses would not require electricity to power most construction equipment, and no natural gas demand would occur during construction. It is assumed that the construction equipment would be well maintained in accordance with CALGreen and meet the appropriate tier ratings pursuant to USEPA emissions standards so that energy efficiency is achieved consistent with relevant applicable State and local plans.

Vehicles used by construction workers are assumed to be predominantly gasoline or diesel fueled. While a number of temporary construction-related jobs would be created, given that the project area is in a well-established urban community with a large housing base and housing stock, new employment demand from project construction would be met within the existing and future labor market in the City and the greater San Francisco Bay area and would not entail worker relocation. Because no worker relocation is anticipated, construction of the visitor-serving uses would not result in increased VMT or population growth that could interfere with implementation of renewable energy initiatives. As discussed previously, construction-related trips would not result in unnecessary use of energy since the project area is centrally located and is served by numerous regional freeway systems (e.g., US-101, SR-84). Construction of the visitor-serving uses would not conflict with or obstruct an applicable plan for renewable energy or energy efficiency, and the impact would be less than significant.

Redwood City Climate Action Plan

The visitor-serving uses would be constructed in accordance with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. This includes the City's Green Building Ordinance, which incorporates building standards that exceed State Title 24 building construction standards and Energy Star conservation standards into future public and private development.

During construction, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per CALGreen or USEPA emissions standards. Additionally, the amount of

electricity used during construction would be minimal as the majority of construction equipment would be gasoline- or diesel-powered. To limit wasteful and unnecessary fuel consumption, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9.

The City's CAP includes goals that promote energy efficiency and energy conservation in project design; however, none of the goals or policies therein apply directly to construction activities. Nonetheless, compliance with the above regulations would minimize construction-related energy consumption. Therefore, construction of the visitor-serving uses would be aligned with the energy efficiency and energy conservation goals of the City's CAP. Construction of the visitor-serving uses would not conflict with or obstruct the City's CAP with respect to renewable energy or energy efficiency; the impact would be less than significant.

Redwood City General Plan

As mentioned above, the visitor-serving uses would be constructed in accordance with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. During construction, it is assumed that the construction equipment would be well maintained and meet the appropriate tier ratings per USEPA emissions standards. Additionally, the amount of electricity used during construction would be minimal as the majority of construction equipment would be gasoline- or diesel-powered. To limit wasteful and unnecessary fuel consumption, the construction contractors would minimize nonessential idling of construction equipment, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9.

The City's General Plan includes goals and policies that promote energy efficiency and energy conservation in project design; however, none of the goals or policies therein apply directly to construction activities. Nonetheless, compliance with the above regulations would minimize construction-related energy consumption. Therefore, construction of the visitor-serving uses would be aligned with the energy efficiency and energy conservation goals and policies of the City's General Plan. Construction of the visitor-serving uses would not conflict with or obstruct the City's General Plan with respect to renewable energy or energy efficiency; the impact would be less than significant.

3.5.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, construction of the proposed project would not require electricity to power most construction equipment, and no natural gas would be used during construction. It is assumed that the construction equipment would be well maintained in accordance with CALGreen so that energy efficiency is achieved consistent with relevant applicable State and local plans. Construction-related trips would not result in unnecessary use of energy since the project area is centrally located and is served by numerous regional freeway systems (e.g., US-101, SR-84). Consequently, construction of the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; the impact would be less than significant.

3.5.5.2.2 Operations

3.5.5.2.2.1 Ferry Terminal

The ferry terminal would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements, which would decrease energy consumption and promote renewable energy. The San

Francisco Bay Ferry's ferry fleet uses renewable diesel fuel and newer vessels are compliant with USEPA Tier 4 emission standards and older vessels are being upgraded under WETA's Commercial Harbor Craft Alternative Control of Emissions Plan[71] to achieve Tier 4 standards with diesel particulate filters where feasible.[72] To comply with CARB requirements, including the ACF rule, WETA is preparing for a phased transition of its ferry fleet from diesel operated ferries to ZEVs.[73] Once the existing vessels that would operate on the Redwood City routes reach the end of their useful life (approximately 25 years), the current vessels in the San Francisco Bay Ferry fleet would be replaced with ZEVs. Additionally, the dimensions of the float would include space to accommodate EV charging infrastructure and a future on-site BES system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. In addition, on-road vehicles used by employees and visitors are expected to be principally a mix of EVs, gasoline-fueled, and diesel-fueled vehicles, which would be subject to fuel economy standards established by the State and federal governments.

Lastly, all utilities serving the City would be required to comply with the State's RPS under SB 100, which mandates utilities to procure a certain proportion of their in-State electricity sales from eligible renewable and carbon-free sources and increasing the proportion through the coming years with an ultimate procurement requirement of 100 percent by December 31, 2045. The RPS requirements would support the use of electricity by the ferry terminal that is generated from renewable or carbon-free sources. Accordingly, operation of the ferry terminal would not conflict with or obstruct an applicable plan for renewable energy or energy efficiency, and the impact would be less than significant.

Climate Action Plan

In terms of vehicle transportation, a portion of vehicles used by future employees, ferry passengers, and visitors would be EVs or would be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels as required by CARB regulations. Furthermore, the ferry service would be a commute-period service, providing three to four trips during both AM and PM peak periods on weekdays, and may experience an increase in ferry service by up to 20 percent as discussed in Section 2.5.4.1 in Chapter 2 of this Draft EIR. The future use of the ferry vessels for passenger transportation would reduce the number of people who would typically commute to or from different areas outside of Redwood City by car on a daily basis. Therefore, operation of the ferry terminal would be consistent with the City's CAP Goals T.1, T.3, and T.4, which aim to minimize vehicle trips and reduce VMT through strategies such as expanding transportation alternatives and supporting EV infrastructure.

These project features and compliance with applicable regulations would minimize operation-related energy consumption. Therefore, operation of the ferry terminal would be aligned with the energy efficiency and energy conservation goals of the City's CAP. Operation of the ferry terminal would not conflict with or obstruct the City's CAP with respect to renewable energy or energy efficiency; the impact would be less than significant.

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[71] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

[72] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

[73] WETA. January 2023. Blueprint for Zero Emission Vessel Transition. Available: https://sanfranciscobayferry.com/wetas-transition-to-zero-emission-ferries/.

Redwood City General Plan

As identified in **Table 3.5-1**, the City's General Plan contains goals and policies intended to promote energy conservation and energy efficiency in the design and operation of projects within Redwood City. For instance, Policy PS-1.3, Policy BE-24.9, and Policy BE-43.2 promote the use of renewable energy resources. Policy PS-1.3, Goal NR-4, Policy NR-4.4, Policy BE-22.2, Policy BE-24.12, Goal BE-43, Policy BE-43.1, and Policy BE-43.3 promote the integration of demand response, energy efficiency, and alternative energy infrastructure to encourage energy conservation. The ferry terminal would directly support the General Plan policies and goals promoting energy efficiency and energy conservation as it would consolidate trans-Bay commuters into ferries and result in an overall decrease in VMT, as shown in Table 3.14-10 and Table 3.14-11 in Section 3.14, Transportation. Moreover, the reconstructed maintenance building and other structures associated with the ferry terminal improvements would be designed compliant with the latest CBSC and CALGreen standards, which would require the incorporation of energy efficiency measures in the building designs. Neither the maintenance building nor any other structures associated with the ferry terminal are planned to include conditioned spaces (temperature controlled). However, should temperature controlled spaces be implemented, they would be required to meet the energy efficiency requirements of the CBSC for indoor lighting, building envelop design, water heating and distribution design, and mechanical equipment. Compliance with the CBSC and CALGreen standards would ensure that the ferry terminal supports the General Plan policies and goals promoting the use of renewable energy resources pursuant to the Energy Code. Operation of the ferry terminal would not conflict with or obstruct the City's General Plan with respect to renewable energy or energy efficiency; the impact would be less than significant.

3.5.5.2.2.2 Visitor-Serving Uses

The visitor-serving uses would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements, which would decrease energy consumption and promote renewable energy. This includes the City's Green Building Ordinance, which incorporates building standards that exceed State Title 24 building construction standards and Energy Star conservation standards into future public and private development. Conditioned spaces (temperature controlled) are required to meet the energy efficiency requirements of the CBSC for indoor lighting, building envelop design, water heating and distribution design, and mechanical equipment. In addition, any appliances used in the buildings would be subject to the energy efficiency requirements of Title 20. Therefore, compliance with the CBSC and CALGreen standards would ensure that the visitor-serving uses support the General Plan policies and goals promoting the use of renewable energy resources because, pursuant to the Energy Code, the proposed buildings that would be temperature controlled (with heating and/or cooling systems) would either need to include rooftop solar, determine a specific exemption that may apply, or design the buildings such that increased efficiency built into the design would offset the need for rooftop solar.

In addition, on-road vehicles used by employees and visitors are expected to be principally a mix of EVs, gasoline-fueled, and diesel-fueled vehicles, which would be subject to fuel economy standards established by the State and federal governments.

Lastly, all utilities serving the City would be required to comply with the State's RPS under SB 100, which mandates utilities to procure a certain proportion of their in-State electricity sales from eligible renewable and carbon-free sources and increasing the proportion through the coming years with an ultimate

procurement requirement of 100 percent by December 31, 2045. The RPS requirements would support the use of electricity by the visitor-serving uses that is generated from renewable or carbon-free sources. Accordingly, operation of the visitor-serving uses would not conflict with or obstruct an applicable plan for renewable energy or energy efficiency, and the impact would be less than significant.

Climate Action Plan

As stated previously, the visitor-serving uses would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements. In terms of vehicle transportation, a portion of vehicles used by future employees and visitors would be EVs or would be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels as required by CARB regulations (i.e., Low Carbon Fuel Standard and ZEV Program). These CARB regulations support the State-level renewable energy and energy efficiency plans by targeting the carbon intensity of transportation fuels, promoting renewable transportation fuels, supporting vehicle electrification, and incentivizing the adoption of low-carbon fuels.

Moreover, due to State and federal vehicle fuel efficiency standards, the average fuel efficiency for vehicles used by employees or visitors to the visitor-serving uses would improve with each year as older and less fuel-efficient vehicles are retired and replaced with newer, more fuel-efficient vehicles. Compliance with these CARB regulations would support the City's CAP Goal T.4, which aims to decarbonize transportation by shifting away from fossil fuel-powered vehicles toward cleaner, low-carbon or zero emission alternatives.

These project features and compliance with applicable regulations would minimize operation-related energy consumption. Therefore, operation of the visitor-serving uses would be aligned with the energy efficiency and energy conservation goals of the City's CAP. Operation of the visitor-serving uses would not conflict with or obstruct for the City's CAP with respect to renewable energy or energy efficiency; the impact would be less than significant.

Redwood City General Plan

As identified in **Table 3.5-1**, the City's General Plan contains goals and policies intended to promote energy conservation and energy efficiency in the design and operation of projects within Redwood City. For instance, Policy PS-1.3, Policy BE-24.9, and Policy BE-43.2 promote the use of renewable energy resources. Policy PS-1.3, Goal NR-4, Policy NR-4.4, Policy BE-22.2, Policy BE-24.12, Goal BE-43, Policy BE-43.1, and Policy BE-43.3 promote the integration of demand response, energy efficiency, and alternative energy infrastructure to encourage energy conservation. The visitor-serving uses would be designed compliant with the latest CBSC and CALGreen standards, which would require the incorporation of energy efficiency measures in the building designs. Furthermore, compliance with the CBSC and CALGreen standards would ensure that the visitor-serving uses support the General Plan policies and goals promoting the use of renewable energy resources because, pursuant to the Energy Code, the proposed buildings that would be temperature controlled (with heating and/or cooling systems) would either need to include rooftop solar, determine a specific exemption that may apply, or design the buildings such that increased efficiency built into the design would offset the need for rooftop solar. Therefore, operation of the visitor-serving uses would not conflict with or obstruct the City's General Plan with respect to renewable energy or energy efficiency; the impact would be less than significant.

3.5.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, the operation of the proposed project would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements, which would decrease energy consumption and promote renewable energy. Other project design features include EV charging infrastructure and an on-site BES system on the float, and EV charging infrastructure in the parking lot. Accordingly, operation of the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; the impact would be less than significant.

Therefore, the proposed project would not conflict with an applicable plan adopted for the purposes of supporting renewable energy or energy efficiency during project operation. This impact would be less than significant.

As described above, for both construction and operation, the proposed project would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements, which would decrease energy consumption and promote renewable energy. Further, it is assumed that the construction equipment would be well maintained in accordance with CALGreen so that energy efficiency is achieved consistent with relevant applicable State and local plans. Project design features for project operation include EV charging infrastructure and an on-site BES system on the float, and EV charging infrastructure in the parking lot. Accordingly, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; the impact would be less than significant.

Therefore, construction and operation of the proposed project would not conflict with an applicable plan adopted for the purposes of supporting renewable energy or energy efficiency. This impact would be less than significant.

3.5.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.5.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.5.5.3 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic context for assessing cumulative environmental impacts associated with energy is the service area for PG&E within San Mateo County. The cumulative impacts analysis evaluates whether the proposed project, in conjunction with growth projected to occur in the future, would result in wasteful,

inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

PCE works in conjunction with PG&E to provide electricity from renewable sources to consumers through the use of PG&E's distribution infrastructure and network. Both utilities are regulated by and subject to the requirements set forth and/or enforced by the CPUC. PG&E provides electricity and natural gas services to Redwood City and other areas in San Mateo County covered by the adopted ABAG growth projections. As the population of the San Mateo County is projected to grow, the demand for electricity and natural gas would also grow. New building development in San Mateo County would be subject to the CALGreen and State Energy Conservation Standards contained in Title 24 and the latest CBSC, which would reduce cumulative energy demand where new buildings and upgrades replace existing structures. Additionally, new development within Redwood City would be required to comply with Redwood City Municipal Code requirements, thereby decreasing energy consumption and increasing the use of renewable energy. This development would therefore be aligned with the City's CAP and State's climate and energy goals. Any necessary infrastructure improvements to electrical systems and natural gas services to accommodate growth and development within San Mateo County would occur in accordance with the rules and regulations of PG&E on file with and approved by the CPUC. Lastly, as discussed above, PCE and PG&E would be required, pursuant to the State's RPS, to procure 100 percent of electricity from eligible renewable and carbon-free sources by 2045. The RPS requirements would support the use of electricity by the projected growth in San Mateo County that is generated from renewable or carbon-free sources.

The proposed project would comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements pertaining to energy efficiency standards and EV charging station requirements, and it would reduce VMT and include other project features to help reduce transportation-related fuel usage such as roadway improvements, EV charging infrastructure, and bicycle storage.

The adopted growth projections and proposed project together would not result in wasteful, inefficient, or unnecessary consumption of energy resources, nor conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, the forecasted growth and increased electricity and natural gas usage coupled with the proposed project would not result in significant impacts related to energy. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.5.5.3.1 Mitigation Measures

No mitigation is required.

3.5.5.3.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to energy would be less than significant.

3.5.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to energy associated with construction and operation of the proposed project.

Section 3.6
Geology, Soils, and Paleontological Resources

3.6.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to geology, soils, and paleontological resources, and the potential impacts from implementation of the proposed project. The geology and soils analysis is based, in part, on published reports and the Geotechnical Desktop Study for the proposed project prepared by COWI in 2024 (see Appendix E). The paleontological resources analysis is primarily based on the Paleontological Review prepared by J.P. Walker Paleontology in May 2025 (see Appendix F). For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

As discussed in the Initial Study, provided in Appendix A, Notice of Preparation/Initial Study (NOP/IS), of this Draft EIR, the proposed project would not cause substantial adverse effects involving landslides or having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 15128, this analysis is available for review in Appendix A, and it is also summarized in Chapter 5, Other CEQA Considerations. Accordingly, analysis of these thresholds is not repeated here.

3.6.2 Methodology

The geology and soils analysis addresses the potential for construction and operation of the proposed project to increase the consequences of adverse geologic conditions and hazards, including earthquake-induced ground shaking, earthquake fault surface rupture, earthquake-induced liquefaction, erosion, and unstable, expansive, and corrosive soils.

To assess whether a given geologic hazard would result in a significant impact, the major components of the proposed project are reviewed and compared with the potential geologic hazards identified. Based on this review, the potential for individual project components to cause new geologic hazards or accelerate existing ones are evaluated.

For the purposes of the environmental analysis, the proposed project is assumed to comply with existing regulatory controls. As applicable, proposed project elements would be implemented in accordance with provisions of Chapter 16, Chapter 18, and Chapter 33 of the California Building Code (CBC) and Articles IV and IX of the City of Redwood City Building Code. This includes requirements for construction, grading, excavations, use of fill, and foundation work, including type of materials, design, procedures, etc., and seismic design requirements. The proposed project would also comply with the City's adopted Engineering Standards which requires preparation of a site-specific soils and geotechnical investigation. City engineers would review the proposed project plans for compliance with the appropriate standards in the building codes.

Available maps and reports identifying geology, faults and earthquake (seismic) hazards in the project area, including the City documents and published reports by the California Geological Survey (CGS) and

U.S. Geological Survey (USGS) were reviewed for information regarding geologic hazards within the project area. The primary source of the project-specific information for geologic hazards is COWI's Geotechnical Desktop Study for the proposed project (2024) which includes a review of available geotechnical information for the project area and vicinity and provides recommendations. Of the four primary sources reviewed by COWI that are listed below, two sources include the project site and project area, and two sources are for nearby properties within the Port. The soil strata conditions identified in the sources for the off-site properties are considered relevant to the project site, given the proximity and site similarities. The sources reviewed for the Geotechnical Desktop Study and their relationship to the project area/project site are:

- Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park, Port of Redwood City, California prepared by Science Applications International Corporation in November 2001 (project site);
- Final Environmental Impact Report for the Pacific Shores Center Project prepared by RECON Environmental Corp in March 1995 (includes the project site, Seaport Boulevard corridor, waterfront park, and western public parking lot);
- Geotechnical Investigation, Port of Redwood City - Wharves 1 and 2 Replacement Project, Redwood City, California prepared by Treadwell & Rollo dated January 16, 2012 (approximately 1,000 feet southwest of the project site and 160 feet west of the Seaport Boulevard corridor); and
- Preliminary Geotechnical Evaluation, CEMEX Port of Redwood City Ready-Mix Concrete Plant, Redwood City, California prepared by GEOCON Consultant Inc. dated December 7, 2020 (immediately south of the project site).

The paleontological analysis assesses if the project area is underlain by paleontologically sensitive geologic units and the potential for their disturbance. Generally, for project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance associated with the project, the higher the potential for impacts to significant paleontological resources to occur. Direct impacts to paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

J.P. Walker Paleontology's Paleontological Review for the proposed project (2024) is the primary source of information about the paleontological resources that may be present at the project site. The following documentation was reviewed and evaluated in preparation of the discussion of the environmental setting and evaluation of geologic hazards and potential for paleontological resources to occur:

- Geotechnical Desktop Study for the Port of Redwood City Ferry Terminal Project prepared by COWI in August 2024;
- Redwood City General Plan and Municipal Code (including Building Code);
- Published technical materials from sources such as CGS and USGS; and

- Paleontological Review, Port of Redwood City Ferry Terminal Project, Redwood City, San Mateo County, California prepared by J.P. Walker Paleontology in May 2025.

3.6.2.1 Overview

Geologic and seismic impacts pertain to both construction and operational activities. The impacts during construction are generally related to failure of temporary structures and safety concerns related to soil stability. The potential for erosion and loss of topsoil is primarily related to the potential for soil disturbance during construction activities but can also be related to operations if soils are exposed following completion of construction. The impacts during operations are generally associated with the safety of built elements relative to geologic stability, including safety impacts resulting from an earthquake and exposure to secondary seismic hazards such as ground settlement or liquefaction. Soil erosion is also addressed in Section 3.9, Hydrology and Water Quality, of this Draft EIR.

Paleontological impacts pertain to ground disturbance activities occurring in paleontologically sensitive geologic units and are therefore, primarily associated with construction activities. Generally, for project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance associated with the project, the higher the potential for impacts to significant paleontological resources to occur. A significant paleontological resource includes any identifiable fossil that is unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and/or those that add to an existing body of knowledge in specific areas – stratigraphically, taxonomically, and/or regionally. The Society of Vertebrate Paleontology (SVP) asserts that any identifiable vertebrate fossil is a significant paleontological resource.[1] Direct impacts to paleontological resources primarily concern the potential destruction of unique paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

The SVP's definition of units with High, Low, and No potential for paleontological impacts are defined as follows:[2]

- High Potential: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e.g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e.g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosoils, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate,

[1] Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Available: SVP_Impact_Mitigation_Guidelines-1.pdf.

[2] Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Available: SVP_Impact_Mitigation_Guidelines-1.pdf.

plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

- Low Potential: Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or, based on general scientific consensus, only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g., basalt flows or recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.
- No Potential: Some rock units have no potential to contain significant paleontological resources, for instance high- grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

3.6.3 Existing Conditions

3.6.3.1 Regulatory Setting

3.6.3.1.1 Federal

Earthquake Hazards Reduction Act of 1977

The Earthquake Hazards Reduction Act of 1977 (Public Law 95124, 42 U.S.C. 7701 et. seq.) is a statute that formulates a national policy to mitigate the dangers of earthquakes in the United States. The act established the National Earthquake Hazards Reduction Program (NEHRP), under which federal, State, and local governments and private organizations jointly plan and coordinate efforts to reduce earthquake-related hazards. The act was amended by the NEHRP Reauthorization Act of 2018 (Public Law 115-307). NEHRP is a coordinating program for earthquake monitoring, research, implementation, education, and outreach activities developed and conducted by NEHRP agencies, including the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology, the National Science Foundation, and the USGS.

3.6.3.1.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 is intended to prevent the construction of buildings used for human occupancy[3] on or adjacent to the surface trace of active faults. The law requires the State Geologist to establish regulatory zones known as Earthquake Fault Zones (previously called Special Studies Zones and Fault-Rupture Hazard Zones) around the surface traces of active faults, and to distribute maps of these zones to all affected cities, counties and State agencies. The Act also requires completion of a

[3] California Code of Regulations Title 14, Section 3601 (e) defines a "structure for human occupancy" as any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.

geologic investigation prior to project approval, to demonstrate that proposed buildings will not be constructed across active faults, and/or that appropriate setbacks from such faults (generally 50 feet) are included in the project design of structures for human occupancy. The Act does not require structural setbacks for potentially active or inactive faults, or for minor structures not for human occupancy located adjacent to active faults. Section 3601 of California Code of Regulations, Title 14, Article 3, Policies and Criteria of the State Mining and Geology Board with Reference to the Alquist-Priolo Earthquake Fault Zoning Act defines an active fault as a fault which has had surface displacement within Holocene time, about the last 11,000 years, hence constituting a potential hazard to structures that might be located across it.

California Building Code

The CBC codified in Title 24 California Code of Regulations encompasses a number of requirements related to geologic issues, including Part 2, Volume 2, Chapter 18, Soils and Foundations, which outlines the minimum standards for structural design and construction. The CBC augments and supersedes the Uniform Building Code (UBC) with stricter requirements to reduce the risks associated with building in seismic areas to the maximum extent practicable. The CBC is modeled after the International Building Code (IBC) and sets standards for the investigation and mitigation of the site conditions related to fault movement, liquefaction, landslides, differential compaction/seismic settlement, ground rupture, ground shaking, and seismically-induced flooding.

Chapter 18, Soils and Foundations, of the CBC requires that geotechnical evaluations be conducted that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues as applicable such as (but not limited to) bearing capacity of soils, provision to address expansive soils and liquefaction, settlement and varying soil strength. If a building department, or other appropriate enforcement agency, determines that recommended action(s) presented in the geotechnical evaluations are likely to prevent structural damage, the approved recommended action(s) must be made a condition to the building permit (Section 1803.1.1.3 of Chapter 18).

The CBC provides standards for various aspects of construction, including but not limited to excavation, grading, and earthwork construction; preparation of the site prior to fill placement, specification on fill materials and fill compaction and field testing; retaining wall design and construction, foundation design and construction; and seismic requirements. It includes provisions to address issues such as (but not limited to) construction on expansive soils, liquefaction potential, and soil strength loss. In accordance with California law, project design and construction would be required to comply with provisions of the CBC. The CBC sets seismic design requirements based on seismic risk categories, which are associated with a structure's occupancy category (i.e., structures that represent low hazard to human life, structures that represent substantial hazard to human life, structures designated as essential facilities based on the proposed use), and a structure's seismic risk category (i.e., severity of the design earthquake ground motion and specific soil properties at the site). Specific provisions of the CBC include Chapter 16, Chapter 18, Chapter 33, and Appendix J. Chapter 16 of the CBC provides structural design requirements governing seismically resistant construction (Section 1604), including factors and coefficients used to establish seismic site class for the soil/rock at the building location and seismic occupancy category for the proposed building design (Sections 1613.3 through 1613.5). Chapter 18 of the CBC addresses buildings and foundation systems to ensure that they are designed and constructed to safely support the structure

loads, including but not limited to, providing requirements for site grading and requirements for deep foundation design and installation. Chapter 33 of the CBC includes, but is not limited to, requirements for excavation safeguards so that excavation and cut or fill slopes are stable (Section 3304). Appendix J of the CBC includes, but is not limited to, grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110).

California Public Resources Code

State requirements for paleontological resource management are included in Public Resources Code Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (State, county, city, district) lands. Further, California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources.

Paleontological resources must be considered under CEQA. Appendix G of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, indicating that a project would have a significant impact on paleontological resources if it disturbs or destroys a unique paleontological resource or site or unique geologic feature.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (Public Resources Code; Division 2, Chapter 7.8, Section 2690 et seq.) provides a Statewide seismic hazard mapping and technical advisory program to assist local agencies in protecting public health and safety relative to seismic hazards. The Act provides direction and funding for the CGS to compile seismic hazard maps that identify areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking, and to make those maps available to local governments for use in their planning and building permit process. The Act, along with related standards in the Seismic Hazards Mapping Regulations (California Code of Regulations; Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), also directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects. The California Geological Survey Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidelines for evaluating seismic hazards other than surface fault rupture and for recommending mitigation measures as required by Public Resources Code Section 2695(a). The Guidelines are compatible with the requirements and provisions of Chapter 7.8 of the Public Resources Code.

National Pollutant Discharge Elimination System Standards

In accordance with Clean Water Act Section 402, which regulates stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program, the California State Water Resources Control Board adopted a Construction General Permit. The Construction General Permit is applicable to all stormwater discharges associated with construction activity. The NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (the Construction General Permit) was adopted on September 8, 2022. The provisions of the new Construction General

Permit (Order # WQ 2022-0057-DWQ [State Water Resources Control Board Division of Water Quality] [DWQ])[4] became effective September 1, 2023.

The main objectives of the Construction General Permit include: (1) reducing erosion and sediment discharges from construction projects or activities; (2) preventing materials used at a construction site from contacting stormwater; (3) implementing a sampling and analysis program to monitor construction site runoff; (4) eliminating unauthorized non-stormwater discharges from construction sites; (5) implementing appropriate measures to reduce impacts on waterways both during and after construction projects; and (6) establishing maintenance commitments on post-construction pollution control measures.

The Construction General Permit requirements apply to any construction project that either results in the disturbance of at least one acre of land or is part of a larger common development plan. Additionally, the General Construction Permit is required for related construction or demolition activities, including clearing, grading, grubbing, or excavation, or any other activity that results in greater than one acre of land disturbance.

The Port of Redwood City would be responsible for compliance with this NPDES permit. Specific permitting requirements would be determined once construction plans and construction phasing are specified. NPDES permits and requirements are discussed in more detail in Section 3.9, Hydrology and Water Quality, of this Draft EIR.

3.6.3.1.3 Regional/Local

San Francisco Bay Regional Water Quality Control Board

As one of nine regional boards in California, the San Francisco Bay Regional Water Quality Control Board (RWQCB) has a stated mission to "preserve, enhance, and restore the quality of the San Francisco Bay Region's water resources for the protection of the environment, public health, and all beneficial water uses." This includes protecting surface and groundwater, including sources of drinking water, by regulating discharges and implementing water quality programs and policies. The RWQCB adopts plans and policies to carry out federal and State water quality protection laws, directs and oversees clean-up of contaminated sites, regulates discharges of pollutants that threaten water quality, and enforces pollution control and clean-up requirements established for discharges and contaminated sites.[5]

San Francisco Bay RWQCB is responsible for issuing the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP 3) (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008).[6,7] The MRP 3 regulates municipal stormwater discharges to surface waters to

[4] California State Water Resources Control Board. 2023. National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order WQ 2022-0057-DWQ NPDES NO. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_order.pdf.

[5] San Francisco Bay Regional Water Quality Control Board (RWQCB). 2024. Strategic Workplan Overview. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_info/Strategic_workplan_overview.pdf.

[6] RWQCB. May 11, 2022. California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit Order No. R2-2022-0018, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[7] RWQCB. October 11, 2023. California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/stormwater/.

reduce the discharge of pollutants in stormwater to the maximum extent practicable, and to implement other pollutant controls as necessary to achieve water quality standards. The MRP 3 regulates construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations.

San Mateo County

San Mateo Countywide Water Pollution Prevention Program

The City is a member agency of the Countywide Water Pollution Prevention Program also known as Flows To Bay.[8] The Program is a partnership of the municipal governments within the County, which share the NPDES MRP 3 Permit. The County delegates authority to the City as the member agency which requires the implementation of appropriate best management practices (BMPs) to address pollutant sources for new development in order to remain in compliance with the MRP 3.

Multijurisdictional Local Hazard Mitigation Plan

San Mateo County's Multijurisdictional Local Hazard Mitigation Plan (LHMP),[9] which was last updated in 2021 and is currently in the process of being updated, assesses hazard vulnerabilities and identifies mitigation actions that local jurisdictions will pursue to reduce the level of injury, property damage, and community disruption that might otherwise result from such events. The LHMP addresses natural and human-caused hazards, including flooding, drought, wildfire, landslides, severe weather, terrorism, cyber threats, pandemic, and the impact of climate change on hazards, as well as other hazards.

Redwood City Municipal Code

Redwood City Municipal Code[10] Chapter 9 is the City's building code. Article IV of the City's building code adopts all chapters of the CBC with the inclusion of several local amendments that include seismic requirements that relate to lot grading, soils design, foundation design, construction design, structural design, and other engineering design. Additional seismic requirements identified in Article IV apply to projects subject to special Bay Mud requirements, including the proposed project. Bay Mud is a soft unconsolidated silty clay that is saturated with water and is present in and around the project site and surrounding area. As identified in Article IX of the City's building code and discussed in greater detail below relative to the City's Engineering Standards, requirements for projects in Bay Mud include using a foundation system with a demonstrated ability to resist differential settlement designed in accordance with the CBC (Section 9.153), and providing a geotechnical report for all new structures (Section 9.154).

Redwood City Municipal Code Chapter 29, Streets, Sidewalks and Work in or Use of City Right-of-way, requires the adoption of Engineering Standards with standard specifications, standard details, and design criteria containing minimum standards for improvements and activities within the right-of-way (Section 29.1). The adopted Engineering Standards are discussed further below.

[8] City/County Association of Governments of San Mateo County (C/CAG). 2025. flowstobay San Mateo Countywide Water Pollution Prevention Program website, "About Flows to Bay." Available: https://flowstobay.org/about-flows-to-bay/. Accessed February 17, 2025.

[9] County of San Mateo. October 2021. 2021 Multijurisdictional Local Hazard Mitigation Plan. Prepared by Tetra Tech.

[10] City of Redwood City. Municipal Code. Available: https://library.municode.com/ca/redwood_city/codes/city_code.

The Redwood City Municipal Code Chapter 27A sets forth the Redwood City Stormwater Management and Discharge Control Program (SMDCP). The SMDCP discusses exempted activities, illicit discharge prohibitions, broad watercourse protection objectives, green infrastructure, and BMPs for new and redevelopment projects. It also refers to the NPDES regulations for stormwater protection and treatment. Section 27A.16 requires new development within 20 feet of the top of a bank to a creek, ditch, natural stormwater drainage channel, storm drainage easement, or public utility easement to obtain a permit from the City Engineer. Additionally, a permit from the City Engineer is required for the placement of any loose or unconsolidated material on the side of a watercourse.

Engineering Standards

The City's adopted Engineering Standards[11] consist of three volumes: Volume I - Standard Technical Specifications; Volume II – Standard Details; and Volume III – Design Criteria. Volume I includes requirements for stormwater pollution prevention during work activities, including control of the worksite and constructing systems to prevent contaminants from entering the stormwater system (Section 02 1330) and requirements for grading and earthwork that include requirements for fill material and fill placement and compaction (Section 02 2200). Volume II includes standard specifications for construction in the public right-of-way, such as streets, drainage facilities and other utilities, and landscaping.

Volume III addresses design criteria for features such as street design, storm drain design, and sewer design. It also includes general engineering plan requirements and grading criteria. Volume III, Part I – General Engineering Plan Requirements, requires a submittal to the City Engineer that includes a soils and geotechnical report, landscape and irrigation plans, and hydrology calculations and a drainage area master plan. Part II – Surveying and Grading Criteria further specifies that the soils and geotechnical report includes a foundation investigation and recommendation for all proposed structures, investigation and recommendations for excavation and grading, investigation and recommendations of encountered soils to assure proper compaction, recommendations for slope protection for proper drainage and erosion control, and recommendations for stormwater control and treatment. For projects in Bay Mud, the report should review and provide recommendations for expected differential settlement and provide recommendations for design to assure adequate slopes for underground utilities subsequent to settlement.

Part IX – Special Requirements for Redwood Shores, and Other Areas with Bay Mud Conditions, addresses projects within the limits of Bay Mud, which includes the proposed project. Part IX identifies that an analysis of differential settlement based on the depth of Bay Mud and amount of fill is the most important consideration. Special procedures for trenching, shoring and dewatering and other design and fitting material consideration are required when constructing utilities in these areas in compliance with the City's Standard Technical Specifications.

Part XII Appendix R2 includes a development review checklist for determining if stormwater control requirements apply to the project and to identify appropriate controls.

[11] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

Redwood City General Plan

The Redwood City General Plan provides information regarding geology, soils, and paleontological resources within the City. The adopted General Plan Public Safety Element[12] addresses hazards due to earthquake activity and related geologic conditions. Applicable adopted General Plan goals and policies include:

- Goal PS-8: Minimize the potential damage to structures and loss of life that result from earthquakes and other geological hazards.
- Policy PS-6.1: Identify structural types, land uses, and sites that are highly sensitive to earthquake activity and other geological hazards; seek to abate or modify them to achieve acceptable levels of risk.
- Policy PS-6.3: Work to ensure that structures and the public in Redwood City are exposed to reduced risks from seismic and geological events.

3.6.3.1.4 Paleontological Professional Standards

The Society of Vertebrate Paleontology (SVP), an international scientific organization of professional vertebrate paleontologists, has established standard guidelines[13] that outline acceptable professional practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil salvage, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically spelled out in its standard guidelines. The SVP's standard guidelines were approved by a consensus of professional paleontologists and are the standard against which all paleontological monitoring and mitigation programs are judged. Many federal and California state regulatory agencies have either formally or informally adopted the SVP's "standard guidelines" for the mitigation of construction-related adverse impacts on paleontological resources as a measure of professional practice.

3.6.3.2 Environmental Setting

3.6.3.2.1 Background and Conditions

The baseline for characterizing the existing geology, soils, and paleontological resources setting is the conditions at the beginning of proposed project operation that consists of a cleared graded project site. Redwood City is within the Coast Ranges geomorphic province, which is primarily composed of marine sedimentary and volcanic rocks, as well as deposits of sandstone, claystone, siltstone, gravel, sand, silt, and clay.[14] The Coast Ranges include northwest-trending valleys and mountain ranges from 2,000 to 6,000 feet in elevation above sea level. The valleys and mountain ranges are parallel to the San Andreas Fault,

[12] City of Redwood City. 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[13] Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Available: SVP_Impact_Mitigation_Guidelines-1.pdf.

[14] City of Redwood City. 2022. Draft Environmental Impact Report – 505 E. Bayshore Road Project. Available: https://ceqanet.opr.ca.gov/2021080447/2.

which is more than 600 miles long.[15] The project area is on the western perimeter of the San Francisco Bay, which is a northwest trending depression between the Santa Cruz Mountains to the west and the Diablo Range to the east.[16] The area is a former marsh that was diked in the 1920s and built up with dredge spoils.[17] It is located at the confluence of Redwood Creek and Westpoint Slough.

3.6.3.2.2 Geology

Surface Soil Conditions

The upland portion of the project site is comprised of fill, including dredge material containing sandy clay to gravelly clay and silty sand.[18] The shoreline is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. Prior to commencement of the proposed project, the project site would be cleared and graded to a flat surface of hard packed dirt that is approximately 10 feet North American Vertical Datum (NAVD) of 1988.

Subsurface Soil Conditions

Previous studies identified in **Section 3.6.2** indicate diverse subsurface conditions, including a top layer that consists of undocumented fill consisting of soft to stiff clay and silt with intermittent layers of sand and gravel typically ranging from 8 to 12 feet thick. Beneath this fill is a soft to medium stiff marine clay layer known as Bay Mud, which formed during thousands of years of deposition and varies in thickness from approximately 20 to 40 feet. Bay Mud consists of organic fine clay and silt and is typically characterized as normally consolidated and lightly consolidated, highly plastic clays. Bay Mud soils are considered highly compressible under new loads and extremely corrosive due to their low resistivity and high chlorides content.

Below the Bay Mud is a layer of fine grain alluvium that generally consists of stiff to very stiff clay and silty clay. This material was found to an explored depth of approximately 100 feet to the south of the project site and was determined to be suitable for deep foundation support for most buildings.[19] Field work approximately two miles from the project site showed a very thin Holocene alluvium layer less than a meter thick. The presence of Holocene alluvium in the subsurface under the project site cannot be confirmed but if it is present at all, it is very unlikely to be a significant presence given the relative thinness of the layer found two miles from the project site. Below the possible Holocene Alluvium are alluvial deposits of Pleistocene age that will extend down to basement rock, far deeper than any work associated with this project.

[15] California Geological Survey. 2002. California Geomorphic Provinces. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf. Accessed September 26, 2024.
[16] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.
[17] City of Redwood City. 1995. Final Environmental Impact Report for the Pacific Shores Center Project. State Clearinghouse #93053065. Prepared by RECON Environmental Corp.
[18] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.
[19] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

Expansive Soil

Expansive soils are clay-rich soils that swell and shrink with wetting and drying. The shrink-swell capacity of expansive soils can result in differential movement below or adjacent to a structure. This differential movement can result in significant damage to pavements, as well as foundations and associated structures.

Based on test results and the predominant near-surface soil type, which assessed conditions directly south of the project site, the overall expansion potential of the area was determined to be low to medium. [20]

Subsidence

Land subsidence is a gradual settling or sudden sinking of the ground surface elevation due to subsurface movement of soils and other earth materials. Fill and native materials can be water saturated, and a net decrease in the pore pressure and contained water will allow the soil grains to pack closer together. This closer grain packing results in less volume and the lowering of the ground surface. Drainage of organic soils, underground mining, natural compaction, and thawing of permafrost can also cause subsidence. Subsidence causes large areas of land to sink, thereby potentially damaging foundations, walls, and floors.

Soil Erosion

Soil erosion is the process by which the top layer of soil is removed and transported by natural forces such as water. Erosion is a condition that can adversely affect development on any site. Currently, the project site is primarily covered by exposed soils and stockpiles of concrete base rock, which are subject to erosion. The current leaseholder is in the process of removing the stockpiles and grading the site, which would leave the underlying soils exposed and the project site would continue to be subject to erosion. However, the soils have likely compacted under the stockpiles, which may reduce their erosive potential.

Seismicity and Seismic Hazards

The project area is within a seismically active region,[21] but it is not within the California Geological Survey Alquist-Priolo Fault Zone according to the California Department of Conservation, CGS California Earthquake Hazards Zone Application (EQ Zapp).[22] The faults closest to the project area, the San Andreas and Hayward faults, have the highest slip rates and are the most seismically active faults in proximity. The San Andreas fault is approximately 6.5 miles to the west and the Hayward fault is approximately 12 miles to the northeast. Other important sources that are capable of producing large-magnitude earthquakes are the San Gregorio, Calaveras, Rodgers Creek, and Greenville fault zones.[23]

[20] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

[21] California Department of Conservation California Geological Survey (CGS). 2025. Fault Activity Map of California. Available: https://maps.conservation.ca.gov/cgs/fam/. Accessed January 29, 2025.

[22] California Department of Conservation CGS. 2025. Earthquake Zones of Required Investigation EQ Zapp mapping tool. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed January 29, 2025.

[23] California Department of Conservation CGS. 2025. Earthquake Zones of Required Investigation EQ Zapp mapping tool. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed January 29, 2025.

Seismic hazards from the following six primary sources are discussed below:

- Surface fault rupture
- Ground shaking
- Liquefaction along with associated settlement
- Liquefaction-induced lateral spreading
- Cyclic densification
- Seismic movement of shoreline slope

Surface Fault Rupture

Fault rupture occurs when movement on a fault breaks through to the earth's surface. As previously identified, the project area is not within an active fault zone.[24] The most seismically active faults in proximity of the project site are approximately 6.5 miles west (San Andreas Fault) and over 12 miles (Hayward fault) northeast of the project site, respectively. As such, the potential for fault rupture at the project site is relatively low.

Ground Shaking

The project site is in a seismically active region and strong to very strong ground shaking is expected to occur in and near the project area. Strong ground shaking during an earthquake can result in ground failures such as soil liquefaction and associated settlement, lateral spreading, cyclic densification, and movement of shoreline slope. According to the Metropolitan Transportation Commission (MTC)[25]/Association of Bay Area Governments (ABAG)[26] Hazard Viewer Map Probabilistic Earthquake Shaking Hazard Layer, the entire project site is likely to experience severe shaking.[27] Further, Bay Mud which underlies the project area produces stronger levels of shaking than other geologic units.[28]

Liquefaction and Associated Settlement

Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. The project area is underlain by Bay Mud, which is highly susceptible to liquefaction. Based on investigations south of the project site, the majority of the potentially liquefiable layers are relatively thin and appear to be discontinuous, which reduces the risk of substantial damage such as settlement, lateral spreading, or slope failure occurring related to liquefaction during a seismic event. However, one boring was encountered with a 5-foot thick

[24] California Department of Conservation CGS. 2025. Earthquake Zones of Required Investigation EQ Zapp mapping tool. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed January 29, 2025.
[25] Metropolitan Transportation Commission (MTC) is the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area.
[26] The Association of Bay Area Governments (ABAG) is a regional planning agency for the nine-county San Francisco Bay Area.
[27] Metropolitan Transportation Commission (MTC) /Association of Bay Area Governments (ABAG). 2018. Hazard Viewer Map Probabilistic Earthquake Shaking Hazard Layer. Available: https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8. Accessed August 22, 2024.
[28] U.S. Geological Survey. San Francisco Bay Area Liquefaction Hazard Maps. Available: https://www.usgs.gov/programs/earthquake-hazards/science/san-francisco-bay-area-liquefaction-hazard-maps. Accessed June 8, 2023.

potentially liquefiable layer within five feet of the existing ground surface.[29] The MTC/ABAG Hazard Viewer Map Earthquake Liquefaction Susceptibility identifies the entire project site and area in an area of very high liquefaction susceptibility.[30]

Lateral Spreading

Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces. Because the project area is located on liquefiable soils, mild slopes on the project site would be vulnerable to lateral spreading.

Cyclic Densification

Seismically-induced compaction or cyclic densification of non-saturated sand (i.e., sand above the groundwater table) resulting from earthquake vibrations may cause differential settlement. The amount of cyclic densification at the project site would likely vary substantially because of the composition of the existing fill.

Seismic Movement of Shoreline Slope

Shoreline slope stability was evaluated south of the project site and determined to have a minimum factor of safety of 1.7, which is considered adequate;[31,32] however, placement of fill could increase potential displacement. The slope movement at the project site would depend on slope geometry, future site elevation, and load.

3.6.3.2.3 Paleontological Resources

As discussed above, the project area is developed upon artificial fill of varying depth. Below the artificial fill are deposits of Bay Muds, which are estimated to be 20-40 feet thick, although this depth may vary considerably. The Bay Mud deposits in turn overlie Pleistocene age alluvium. The artificial fill and the Bay Muds that underlie the project site are considered to have no and low potentials, respectively, for containing significant paleontological finds. In contrast, the underlying Pleistocene alluvium is considered to have a high potential for significant paleontological finds.

As described in Appendix F, Pleistocene deposits near the project site have produced seven paleontological specimens, including *Equus sp.* (horse), *Camelops sp.* (camel/llama) and *Bison* (buffalo). The closest Pleistocene age fossil was collected 2 miles from the project site; other locations are about 3.5 to 4.5 miles from the project site. A bear tooth was also collected from the Holocene Bay Muds.

[29] Ben. C. Gerwick, Inc. January 16, 2012. Geotechnical Investigation, Port of Redwood City Wharves 1 & 2 Replacement Project, Redwood City, California. Prepared by Treadwell & Rollo.

[30] MTC/ABAG. 2006. Hazard Viewer Map Earthquake Liquefaction Susceptibility Layer. Available: https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8. Accessed August 22, 2024.

[31] Factor of Safety is a quantitative measure of a slope's stability that divides stable forces by forces of instability. Values greater than 1 are suggestive of stable conditions while values less than 1 indicate potentially unstable slopes.

[32] COWI. August 16, 2024. Geotechnical Desktop Study. (Appendix E of this Draft EIR).

3.6.4 Thresholds of Significance

The proposed project would result in significant impacts associated with geology, soils, and/or paleontological resources if it would:

Impact 3.6-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
- Strong seismic ground shaking.
- Seismic-related ground failure, including liquefaction.

Impact 3.6-2 Result in substantial soil erosion or the loss of topsoil.

Impact 3.6-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse.

Impact 3.6-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

Impact 3.6-5 Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

3.6.5 Project Impacts

3.6.5.1 Impact 3.6-1

Impact 3.6-1: Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction?

3.6.5.1.1 Ferry Terminal

Rupture of a Known Earthquake Fault

As discussed in **Section 3.6.3.2**, the project site is not within and does not cross an active fault zone. Because there are no known active faults capable of ground rupture under the project site and area, fault rupture would not expose people or structures to substantial adverse effects, including the risk of loss, injury, or death. The impact would be less than significant.

Seismic Ground Shaking

The project site is in a seismically active region and periodic earthquake activity can be anticipated through the lifetime of structures constructed in the present time, including the proposed ferry terminal. Thus, ground shaking should be expected during the life of the ferry terminal. As previously described, there are a number of faults in the region that are considered active and could have an effect on the project site in the form of moderate to future strong ground shaking. These faults include, but are not limited to, the San Andreas and Hayward Faults.

Although seismic activity can cause damage to substandard construction, new construction built in compliance with the latest earthquake-resistant building design standards can substantially reduce potential structural damage and the risk to public safety from seismic events. The proposed project would be required to adhere to design standards, grading, and construction practices to avoid or reduce seismic hazards. This includes adherence to Section 1613 of the CBC which sets forth provisions to design and construct structures to resist the effects of earthquake motions and Article IX of the City's building code which requires projects in Bay Mud to use a foundation system that resists differential settlement as described in **Section 3.6.3.1**. The proposed project would increase the elevation of the project site by approximately seven feet with engineered fill. The placement of the fill and the shoring of the slopes would occur in compliance with the CBC and the City's building code and Engineering Standards described in **Section 3.6.3.1.** This includes adherence to Section 3304 of the CBC which includes requirements for excavation safeguards so that excavation and cut or fill slopes are stable. In Appendix J of the CBC, Sections J106 and J107 include grading requirements for the design of excavations and fills, while Section J110 contains requirements for erosion control. Section 02 2200 of the City's Engineering Standards contains requirements for grading and earthwork that include requirements for fill material and fill placement and compaction to achieve a stable slope and prevent saturation, adverse settlement, slipping, or erosion of the fill that could otherwise occur during a seismic event. The ferry terminal facilities and access improvements would be designed, located, and built in compliance with the most up-to-date building code requirements of the CBC and Redwood City applicable at the time of development. Compliance with these regulations, requirements, and practices would result in the construction of ferry terminal facilities which are structurally resilient to seismic ground shaking, thus reducing the risk of loss, injury, or death.

Additionally, implementation of the ferry terminal and associated components would be required to comply with the recommendations identified in the approved site-specific soils and geotechnical investigation and engineering analysis. This would be required to occur during the design and engineering phase to address construction criteria and specified seismic parameters, including recommendations for proper composition and placement of engineered fill, slope protection, and foundation design. Compliance with up-to-date building code requirements, Engineering Standards, and recommendations identified in the project-specific soils and geotechnical investigation and engineering analysis would reduce impacts associated with seismic ground shaking and would ensure the impacts associated with exposing people or structures to substantial adverse effects, including the risk of loss, injury, or death involving ground shaking, would be less than significant.

Seismic-Related Ground Failure (Liquefaction and Settlement)

As described above in **Section 3.6.3.2.2**, the project area is highly susceptible to liquefaction and settlement as it is underlain with Bay Mud and loose to medium dense sand and silt. Seismic-related ground failure, liquefaction, and settlement could result in damage to structures and human injuries. The final design and engineering plans for the proposed project would address potential liquefaction and related effects by adhering to recommendations contained in the required site-specific soils and geotechnical investigation and through compliance with building code and Engineering Standards. Chapter 18, Soils and Foundations, of the CBC requires that geotechnical evaluations be conducted that include recommendations for foundation type and design criteria that address issues such as liquefaction. In compliance with Chapter 18 of the CBC, the project engineering would include standard, mandated practices to remediate liquefaction effects such as ground modification (e.g., dynamic compaction to

improve on-site soil conditions) and the use of deep foundations to achieve structural stability. The precise methods and details (i.e., type and depth of foundations) would be determined through the project-specific soils and geotechnical investigation and supplemental engineering analysis in compliance with CBC requirements, City requirements, including specific requirements to address projects in Bay Mud, and project-specific soils and geotechnical investigation recommendations. Additionally, grading, compaction, and foundations at the project site would have to adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code to achieve a stable slope and prevent the saturation of soils and adverse settlement that could occur due to seismic-related ground failure.

Use of deep pile foundations for the landside access pier and float guide piles and adherence to soils and geotechnical investigation recommendations and regulatory requirements for all ferry terminal improvements and access improvements would ensure the impacts associated with exposing people or structures to substantial adverse effects, including the risk of loss, injury, or death involving seismically-induced liquefaction and settlement, would be less than significant.

3.6.5.1.2 Visitor-Serving Uses

Rupture of a Known Earthquake Fault

As discussed in **Section 3.6.3.2** the project area is not within an active fault zone. Because there are no known active faults capable of ground rupture under the project site and area, fault rupture would not expose people or structures to substantial adverse effects, including the risk of loss, injury, or death. The impact would be less than significant.

Seismic Ground Shaking

The project site is in a seismically active region and periodic earthquake activity can be anticipated through the lifetime of structures constructed in the present time. Thus, ground shaking should be expected during the life of the visitor-serving uses. As previously described, there are a number of faults in the region that are considered active and could have an effect on the project site in the form of moderate to future strong ground shaking. These faults include, but are not limited to, the San Andreas and Hayward Faults.

Although seismic activity can cause damage to substandard construction, new construction built in compliance with the latest earthquake-resistant building design standards can substantially reduce potential structural damage and the risk to public safety from seismic events. Construction of the visitor-serving uses would be required to adhere to design standards, grading, and construction practices to avoid or reduce seismic hazards. The visitor-serving uses would be designed, located, and built in compliance with the most up-to-date requirements, including adherence to Section 1613 of the CBC which sets forth provisions to design and construct structures to resist the effects of earthquake motions and Article IX of the City's building code which requires projects in Bay Mud to use a foundation system that resists differential settlement. The proposed project would increase the elevation of the project site by approximately seven feet with engineered fill. The placement of the fill and the shoring of the slopes would occur in compliance with Section 3304 of the CBC, which includes requirements for excavation safeguards so that excavation and cut or fill slopes are stable. In Appendix J of the CBC, Sections J106 and J107 include grading requirements for the design of excavations and fills, while Section J110 contains requirements for erosion control. Section 02 2200 of the City's Engineering Standards contains requirements for grading and earthwork that include requirements for fill material and fill placement and

compaction to achieve a stable slope and prevent saturation, adverse settlement, slipping, or erosion of the fill that could otherwise occur during a seismic event. These requirements are described in greater detail in **Section 3.6.3.1**. Compliance with these regulations, requirements, and practices would result in the construction of visitor-serving uses which are structurally resilient to seismic ground shaking, thus reducing the risk of loss, injury, or death. Additionally, implementation of the proposed project would be required to comply with the recommendations detailed in the approved soils and geotechnical investigation and engineering analysis for the visitor-serving uses that would occur during the design and engineering phase. As specified in Section 1803A.7 of the CBC, this report would identify construction criteria and specified seismic parameters, including recommendations for proper composition and placement of engineered fill and foundation design. The recommendations would comply with the building code and engineering requirements cited above and also include site specific- recommendations based on the results of the investigation and the detailed design and engineering plans, which are not known at this time. As described above, compliance with building codes and engineering standards would reduce seismic risks. Compliance with up-to-date building code requirements, Engineering Standards, and recommendations identified in the site-specific soils and geotechnical investigation and engineering analysis for the visitor-serving uses would reduce impacts associated with seismic ground shaking and would ensure the impacts associated with exposing people or structures to substantial adverse effects, including the risk of loss, injury, or death involving ground shaking, would be less than significant.

Seismic-Related Ground Failure (Liquefaction and Settlement)

As described above in **Section 3.6.3.2.2**, the project area is highly susceptible to liquefaction and settlement as it is underlain with Bay Mud and loose to medium dense sand and silt. Seismic-related ground failure, liquefaction, and settlement could result in damage to structures and human injuries. Chapter 18, Soils and Foundations, of the CBC requires that geotechnical evaluations be conducted that include recommendations for foundation type and design criteria that address issues such as liquefaction. The project design would incorporate measures to address liquefaction risks and related effects, pursuant to recommendations in the required site-specific soils and geotechnical investigation and building code, Engineering Standards, and other regulatory standards. These measures may include standard practices to remediate liquefaction effects such as ground modification (e.g., dynamic compaction to improve on-site soil conditions) and the use of deep foundations that would reduce risks associated with liquefaction and settlement. The deep foundations would include pile foundations in excess of 60 feet for the three-story hotel building although the precise methods and details (i.e., depth of foundations) would be determined through the project-specific soils and geotechnical investigation and supplemental engineering analysis in compliance with Section 1810 (Deep Foundations) of the CBC, City requirements in Article IV of the City's building code, including specific requirements to address projects in Bay Mud such as providing a foundation system with a demonstrated ability to resist differential settlement, and project-specific soils and geotechnical investigation recommendations. Additionally, grading, compaction, and foundations at the project site would have to adhere to design- and project-specific standards and requirements of the current CBC, City of Redwood City Building Code, and the City's Engineering Standards described in **Section 3.6.3.1** to achieve a stable slope and prevent the saturation of soils and adverse settlement that could occur due to seismic-related ground failure.

Use of deep foundations and adherence to the site-specific soils and geotechnical investigation recommendations and building code and other regulatory requirements would ensure the impacts

associated with exposing people or structures to substantial adverse effects, including the risk of loss, injury, or death involving seismically-induced liquefaction and settlement would be less than significant.

3.6.5.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, the construction and operation of all project components would comply with up-to-date building code requirements and recommendations identified in the site-specific soils and geotechnical investigation and engineering analysis. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction. This would be a less than significant impact for construction and operations.

3.6.5.1.4 Mitigation Measures

No mitigation is required for construction or operations.

3.6.5.1.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.6.5.2 Impact 3.6-2

Impact 3.6-2: Would the proposed project result in substantial soil erosion or the loss of topsoil?

3.6.5.2.1 Construction

3.6.5.2.1.1 Ferry Terminal

Ground disturbing activities occurring during construction of the ferry terminal would temporarily expose surficial soils to wind and water erosion, increasing the potential for soil erosion and loss of topsoil compared to existing conditions. During a storm event, soil erosion and loss of topsoil would occur at an accelerated rate. However, construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures that would ensure grading, excavation, and other earth-moving activities would avoid a significant impact. For example, a Stormwater Pollution and Prevention Plan (SWPPP) and an erosion and sediment control plan would be prepared in compliance with applicable NPDES permits. The SWPPP, NPDES permits, and erosion-control BMPs are described in more detail in Section 3.9, Hydrology and Water Quality, of this Draft EIR. The implementation of erosion control BMPs would prevent substantial soil erosion or the loss of topsoil from exposed soils. Erosion control BMPs may include, but would not be limited to, use of detention ponds or infiltration pits to collect and reduce erosion, using barriers to slow the rate of runoff, or controlling the use of water irrigation, as discussed further in Section 3.9. Further, construction would comply with Appendix J of the CBC which includes requirements for the design of excavations and fills and for erosion control and the City's Engineering Standards that identify requirements for stormwater pollution prevention during construction as described in **Section 3.6.3.1**. Therefore, although construction would result in the localized and temporary movement of soils during construction, given compliance with regulatory requirements, substantial erosion of soils or loss of topsoil would not occur. The impact would be less than significant.

3.6.5.2.1.2 Visitor-Serving Uses

As with construction of the ferry terminal, ground disturbing activities occurring during construction of the visitor-serving uses would temporarily expose surficial soils to wind and water erosion, increasing the potential for soil erosion and loss of topsoil compared to existing conditions, especially during a storm event. As described above, construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures in accordance with applicable NPDES permits, the SWPPP, and erosion and sediment control plan. The SWPPP, NPDES permits, and erosion-control BMPs are described in more detail above and in Section 3.9 of this Draft EIR. Further, construction would comply with Appendix J of the CBC which includes requirements for the design of excavations and fills and for erosion control and the City's Engineering Standards that identify requirements for stormwater pollution prevention during construction as described in **Section 3.6.3.1**. At the close of construction, areas of exposed soil that were previously paved would be restored to a paved condition. Therefore, although construction would result in the localized and temporary movement of soils during construction, given compliance with regulatory requirements, substantial erosion of soils or loss of topsoil would not occur. Therefore, the impact would be less than significant.

3.6.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Ground disturbing activities occurring during construction of the proposed project would temporarily expose surficial soils to wind and water erosion, increasing the potential for soil erosion and loss of topsoil compared to existing conditions. As described above, construction activities for all project components would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures. At the close of construction, areas of exposed soil that were previously paved would be restored to a paved condition. Therefore, given compliance with regulatory requirements, the proposed project would not result in substantial soil erosion or the loss of topsoil. This would be a less than significant impact for construction.

3.6.5.2.2 Operations

3.6.5.2.2.1 Ferry Terminal

Upon completion of construction, the project site would be covered with landscaping and hardscaping, which would reduce the potential for soil erosion to occur compared to existing conditions (primarily exposed, but compacted, soils). Other portions of the project area, such as for access improvements along Seaport Boulevard) are currently covered with paving, landscaping, or hard packed soils. Post-construction, these areas would be covered with landscaping or hardscaping, and would not cause substantial erosion or loss of topsoil.

However, the development of the project site would increase the amount of impervious surface in the project area. An increase in impervious surface would result in increased stormwater runoff. However, as addressed in further detail in Section 3.9 of this Draft EIR, the impervious surfaces would drain into new permanent stormwater facilities and landscaping would be installed alongside the new impervious areas to prevent erosion and sedimentation. The drainage system would comply with the San Mateo Countywide Water Pollution Prevention Program, Redwood City's SMDCP (Municipal Code Chapter 27A), and the City's Engineering Standards Volume III that addresses storm drain design criteria, which would ensure sufficient capacity to manage the runoff volume and ensure that runoff would not cause substantial erosion.

Ferry operations would generate vessel wake, which is wave energy created by the passage of a vessel through water. Depending on the water depth and type of shoreline, wake wash may either dissipate or reach the shoreline. The characteristics of wake wash that reaches the shoreline depend on the size and shape of the hull, vessel speed, vessel direction, and water depth. If wake wash reaches the shoreline with substantially greater wave heights or energy than natural wind waves, it can lead to shoreline erosion. As discussed in more detail in Section 3.9, Hydrology and Water Quality, and Appendix G of this Draft EIR, ferry vessels would reduce their speed from 35 knots to seven knots when approaching the Redwood Creek Channel and Bair Island and Greco Island, which would reduce the amount of wake wash that is generated. At the slower speed of seven knots, there would be minimal wake effect on the shoreline, and thus, ferry operations would not cause substantial shoreline erosion.

Operation of the ferry terminal would comply with post-construction measures in applicable NPDES permits and ferry vessels would operate at slower speeds near Bair and Greco Islands, which would minimize erosion impacts. Therefore, impacts related to soil erosion and loss of topsoil during operation of the ferry terminal would be less than significant.

3.6.5.2.2.2 Visitor-Serving Uses

Post-construction, the visitor-serving uses site would be covered with landscaping or hardscaping, and would not cause substantial erosion or loss of topsoil. However, the development of the visitor-serving uses site, including the structures, roadway, and parking lot, would increase the amount of impervious surface in the project area. An increase in impervious surface would result in increased stormwater runoff that generates erosion. As discussed in Section 3.9, visitor-serving uses would comply with applicable NPDES permits, which would minimize erosion impacts. Further, as described for the ferry terminal in Section 3.9 and above, the impervious surfaces would drain into new permanent stormwater facilities and landscaping would be installed alongside the new impervious areas to prevent erosion and sedimentation. The drainage system would comply with the San Mateo Countywide Water Pollution Prevention Program, Redwood City's SMDCP (Municipal Code Chapter 27A), and the City's Engineering Standards Volume III, which would ensure sufficient capacity to manage the runoff volume and ensure that runoff would not cause substantial erosion. Thus, operation of the visitor-serving uses would not result in substantial soil erosion or the loss of topsoil and impacts would be less than significant.

3.6.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The development of the project site with the ferry terminal and visitor-serving uses would increase the amount of impervious surface in the project area, which would result in increased stormwater runoff that generates erosion. The operation of all project components would comply with applicable NPDES permits and stormwater design criteria, which would minimize erosion impacts. The ferry vessels would operate at slower speeds near Bair and Greco Islands, which would minimize erosion impacts. Therefore, the operation of the proposed project would not result in substantial soil erosion or the loss of topsoil. This would be a less than significant impact.

3.6.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.6.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.6.5.3 Impact 3.6-3

Impact 3.6-3: Would the proposed project be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse?

3.6.5.3.1 Ferry Terminal

Liquefaction/Ground Settlement/Lateral Spreading/Subsidence

As demonstrated in the California Department of Conservation's Earthquake Zones of Required Investigation, the project area is in an area designated as having very high liquefaction susceptibility.[33] This is due to the project site being underlain by Bay Mud, which is highly susceptible to liquefaction. The site of the ferry terminal improvements is primarily flat and should liquefaction occur, it would most likely manifest itself as local ground subsidence, settlement, and reduction in shear strength. The potential for lateral spreading and global instability would be low, since the site is relatively level and because the potentially liquefiable soils are thin and not continuous at the project site as identified in **Section 3.6.3.2.2**. The project includes the placement of fill to build up the elevation of the project site by approximately seven feet, which would result in increased slopes along the edge of the project site where it transitions to the existing grade and shore. The effects of liquefaction on slopes could include settlement, reduction in shear strength, lateral spreading, and global instability. However, the placement of new fill, compaction, and slope protection and shoring would occur in compliance with requirements for fill composition and compaction in Sections 1804, 3304, J106, and J107 of the CBC, Articles IV and IX of the City of Redwood City Building Code, and Section 02 2200 of the City's Engineering Standards, and any recommendations in the site-specific soils and geotechnical investigation required for the proposed project. The ferry terminal would be supported on deep piles. With the use of deep piles and compliance with recommendations in the site-specific soils and geotechnical investigation, the CBC, and the City of Redwood City Building Code and Engineering Standards, the impacts related to liquefaction, lateral spreading, and settlement would be less than significant.

Corrosive Soils

As discussed in **Section 3.6.3.2**, the project site and area are underlain by Bay Mud, which is highly corrosive due to low resistivity and high chlorides content. Long-term exposure to corrosive soils could result in deterioration and eventual failure of underground facilities, such as concrete and metal structures. There is fill overlying the Bay Mud that is typically from 8 to 12 feet thick and additional fill would be imported to build up the height of the project site. Therefore, other than deep piles to support the pier and float, the ferry terminal components, such as new paving and utilities, would be located on or in fill and not within Bay Mud. Regardless, a detailed soils and geotechnical investigation would be conducted prior to final design. The proposed project would comply with recommendations contained therein and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards, including special requirements for Bay Mud conditions. Methods which may be used to address corrosive soil include the use of

[33] California Department of Conservation. 2025. Earthquake Zones of Required Investigation. Available: https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/. Accessed April 7, 2025.

protective coatings or cathodic protection where structures may contact corrosive soil. Therefore, impacts related to corrosive soils would be less than significant.

Compressible Soils

The project site encompasses a variety of subsurface conditions that may be susceptible to compression under load, including Bay Mud, and the project site may experience consolidation settlement with the placement of the additional fill. The long-term consolidation behavior of the compressible Bay Mud could adversely affect the ferry terminal foundation and pavement if not properly compacted. Site-specific soil sampling and testing for Bay Mud would be conducted as part of the geotechnical investigation to determine recommendations for proper compaction. The processing, placement, and compaction of the project soils and new fill would occur in compliance with the final site-specific soils and geotechnical investigation recommendations and requirements of Sections 1804, 3304, J106, and J107 of the CBC, Articles IV and IX of the City of Redwood City Building Code, and Section 02 2200 of the City's Engineering Standards. With incorporation of recommendations contained in the project geotechnical investigation and appropriate regulatory requirements into project design and construction, impacts related to compressible materials would be less than significant.

Summary

Structural engineering standards to address geological conditions are part of standard construction requirements and standard construction practices. As described above, while the project area is located in an area with Bay Mud and has soils that could be susceptible to the effects of liquefaction, corrosion, and compression, the site-specific soils and geotechnical investigation, engineering analysis and plans submitted to the City's Building and Code Enforcement Department would include measures for engineering and safety standards to address site-specific conditions. Compliance with the site-specific soils and geotechnical investigation recommendations and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards would ensure that impacts associated with the proposed project being located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse, would be less than significant.

3.6.5.3.2 Visitor-Serving Uses

Liquefaction/Ground Settlement/Lateral Spreading/Subsidence

As discussed in **Section 3.6.5.3.1**, the entire project site is in an area designated as having very high liquefaction susceptibility.[34] The effects of liquefaction include settlement, reduction in shear strength, lateral spreading, and global instability in areas of sloping ground. Because the project site is flat, should liquefaction occur, it would most likely manifest itself as local ground subsidence, settlement, and reduction in shear strength. However, because the potentially liquefiable layers appear to be thin and discontinuous, the risk of significant damage from settlement, lateral spreading, or slope failure is reduced.

[34] California Department of Conservation. 2025. Earthquake Zones of Required Investigation. Available: https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/. Accessed April 7, 2025.

The potential for lateral spreading and global instability would be low, since the site is relatively level and because the potentially liquefiable soils are not continuous at the project site. Further, the project would require the placement of fill to build up the elevation of the site by approximately seven feet to accommodate future sea level rise projections. The edges of the site would be sloped. The effects of liquefaction on slopes could include settlement, reduction in shear strength, lateral spreading, and global instability. However, the placement of new fill, compaction, and slope protection and shoring would occur in compliance with requirements for fill composition and compaction in Sections 1804, 3304, J106, and J107 of the CBC, Articles IV and IX of the City of Redwood City Building Code, and Section 02 2200 of the City's Engineering Standards. Fill would be properly compacted per the CBC and City of Redwood City Building Code and any recommendations in the site-specific soils and geotechnical investigation conducted prior to final design would be implemented. Further, the hotel, restaurant, and office, would be set back a minimum of 100 feet from the sloped shoreline and would be supported on deep pile foundations. Because of the use of deep pile foundations and compliance with recommendations in the site-specific soils and geotechnical investigation, the CBC, and the City of Redwood City Building Code and Engineering Standards, the impacts related to the proposed project being located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse, would be less than significant.

Corrosive Soils

As discussed in **Section 3.6.3.2**, the project area is underlain by Bay Mud, which is highly corrosive due to low resistivity and high chlorides content. Long-term exposure to corrosive soils could result in deterioration and eventual failure of underground facilities, such as concrete and metal structures. A detailed soils and geotechnical investigation would be conducted prior to final design of the visitor-serving uses. The proposed project would comply with recommendations contained therein and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards, including special requirements for Bay Mud conditions. Methods which may be used to address corrosive soil include the use of protective coatings or cathodic protection where structures may contact corrosive soil. Therefore, impacts related to corrosive soils would be less than significant.

Collapsible/Compressible Materials and Soils

The project site encompasses a variety of subsurface conditions that may be susceptible to compression under load, including Bay Mud. The visitor-serving uses would be located on fill that would be placed at the project site prior to construction of the ferry terminal. As described for construction of the ferry terminal above, the new fill would be properly compacted in compliance with the final site-specific soils and geotechnical investigation recommendations and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards. With incorporation of recommendations contained in the project geotechnical investigation and appropriate regulatory requirements into project design and construction, impacts related to compressible materials would be less than significant.

Summary

Structural engineering standards to address geological conditions are part of standard construction requirements and standard construction practices. As described above, while the project site is located in an area with Bay Mud and has soils that could be susceptible to the effects of liquefaction, corrosion, and

compression, the site-specific soils and geotechnical investigation, engineering analysis and plans submitted to the City's Building and Code Enforcement Department would include measures for engineering and safety standards to address site-specific conditions. Compliance with the site-specific soils and geotechnical investigation recommendations and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards would ensure that impacts associated with the project being located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse, would be less than significant.

3.6.5.3.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, the construction and operation of all project components would comply with recommendations contained in the detailed soils and geotechnical investigation conducted prior to final design for each portion of the project and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code. Thus, although the proposed project would be located on a geological unit or soil that is unstable, it would not become unstable as a result of the project and would not result in on- or off-site lateral spreading, subsidence, liquefaction, or collapse. As such, this would be a less than significant impact for construction and operations.

3.6.5.3.4 Mitigation Measures

No mitigation is required for construction or operations.

3.6.5.3.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.6.5.4 Impact 3.6-4

Impact 3.6-3: Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

3.6.5.4.1 Ferry Terminal

Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of clay minerals and can adversely affect the integrity of facilities such as pavement or structure foundations. Expansive soils beneath building foundations could result in cracking and distress of foundations, or otherwise damage buildings/structures built on these sediments. As discussed in **Section 3.6.3.2**, based on test results conducted to the south of the project site and the predominant near-surface soil type near the project site, overall expansion potential of the project area is considered low to medium. The placement of fill at the project site to increase the site elevation that would occur in compliance with building code and engineering requirements would improve soil stability and reduce expansive soil behavior through fill composition, proper grading, and compaction. Additionally, the design that would include use of deep pile foundations and a new stormwater drainage system that would be constructed in compliance with Chapter 27A of the City's Municipal Code (see **Section 3.6.3.1.3**) would also reduce the potential for expansive soil behavior. A detailed soils and geotechnical investigation would be conducted prior to final design that would include identification of any specific recommendations to address expansive soil behavior. The proposed project would comply with those recommendations and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City

Building Code and Engineering Standards. Compliance with the recommendations in the soils and geotechnical investigation, building code requirements, and engineering standards would ensure that the potential for the ferry terminal to result in impacts related to expansive soils creating substantial direct or indirect risks to life or property would be less than significant.

3.6.5.4.2 Visitor-Serving Uses

As discussed in **Section 3.6.3.2** and above, overall expansion potential of the project area is considered low to medium. The placement of fill at the project site to increase the site elevation prior to construction of the visitor-serving uses would improve soil stability and reduce expansive soil behavior through fill composition, proper grading, and compaction. Additionally, the design that would include use of deep pile foundations and a new stormwater drainage system that would be constructed in compliance with Chapter 27A of the City's Municipal Code (see **Section 3.6.3.1.3**) would also reduce the potential for expansive soil behavior. A detailed soils and geotechnical investigation would be conducted prior to final design of the visitor-serving uses that would include identification of any specific recommendations to address expansive soil behavior. The proposed project would comply with recommendations contained therein, such as the use of deep pile foundations, and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards. Compliance with the recommendations in the soils and geotechnical investigation, building code requirements, and engineering standards would ensure that the potential for the visitor-serving uses to result in impacts related to expansive soils creating substantial direct or indirect risks to life or property would be less than significant.

3.6.5.4.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, the construction and operation of all project components would comply with recommendations in the detailed soils and geotechnical investigation conducted prior to final design for each portion of the project and would also adhere to design- and project-specific standards and requirements of the current CBC and City of Redwood City Building Code and Engineering Standards. Compliance with the recommendations in the soils and geotechnical investigations, building code requirements, and engineering standards would ensure that the potential for the proposed project to result in impacts related to expansive soils creating substantial direct or indirect risks to life or property would be less than significant.

3.6.5.4.4 Mitigation Measures

No mitigation is required for construction or operations.

3.6.5.4.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.6.5.5 Impact 3.6-5

Impact 3.6-5: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

3.6.5.5.1 Construction

3.6.5.5.1.1 Ferry Terminal

As discussed in **Section 3.6.3.2.3**, there are no known vertebrate fossil localities within the boundaries of the project site. The project area is highly disturbed and consists of artificial fill on top of Bay Mud, which have no and low potential for containing significant paleontological finds, respectively. Further, the elevation of the project site would be raised by approximately seven feet of engineered fill that also has no potential for paleontological resources. However, while there are no known fossil localities in the project area, the Bay Mud overlies Pleistocene alluvium, which is considered to have a high potential for containing significant vertebrate fossils and therefore, disturbance of the Pleistocene alluvium has the potential to damage or destroy a unique paleontological resource. Construction of the ferry terminal and access improvements, including trenching for new and relocated utilities, would primarily occur within the existing artificial disturbed fill and the new fill imported to the project site and therefore, would have no potential to disturb paleontological resources. However, construction of the ferry terminal would require the installation of deep piles to support the access pier and the float. The piles would extend into the deposits of Pleistocene alluvium beneath the artificial fill and Bay Mud, which is considered to have a high potential for significant paleontological finds. Therefore, paleontological resources could be encountered and impacted during the installation of deep piles. Any specimens encountered during pile driving would be damaged or destroyed by the construction equipment. This would be a significant impact.

Construction of the ferry terminal would include dredging activities in Redwood Creek that would disturb sediments within Redwood Creek. The sediments are highly disturbed due to factors such as currents, turbidity, and previous dredging activities and would not contain unique paleontological resources. Impacts associated with dredging would be less than significant.

While most construction activities would occur in fill and Bay Mud or disturbed underwater sediments and would not impact paleontological resources, installation of deep piles could directly or indirectly destroy a unique paleontological resource and the impact would be significant.

3.6.5.5.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would require ground-disturbing activities. As described for the ferry terminal above, the project site is highly disturbed and consists of artificial fill on top of Bay Mud, which have no and low potential for containing significant paleontological finds, respectively. Additionally, the site elevation would be raised by an additional seven feet of engineered fill that also has no potential for paleontological resources. While most construction activity for visitor-serving uses, including trenching for utilities, would occur within these layers that have little to no potential for paleontological resources, deep pile foundations would exceed the depth of the artificial fill and extend into the Holocene Bay Muds. Surface grading or shallow excavations in the artificial fill and Bay Muds exposed throughout the project area are unlikely to produce significant vertebrate fossil remains. However, deep pile foundations for the visitor-serving uses hotel would extend down into older Pleistocene alluvium, which is considered to have a high potential for significant paleontological finds. In the event that specimens are encountered during

pile driving and excavation activities, they would be damaged or destroyed by the construction equipment. This would be a significant impact.

While most construction activities would occur in fill and Bay Mud and would not impact paleontological resources, installation of deep pile foundations could directly or indirectly destroy a unique paleontological resource and the impact would be significant.

3.6.5.5.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the ferry terminal and visitor-serving uses would involve activities, such as excavations and pile driving, which may penetrate beneath the artificial fill and Bay Muds that underlie the project site and encounter Pleistocene alluvium. Artificial fill and Bay Muds are considered to have no and low potentials, respectively, for containing significant paleontological finds. However, deposits of Pleistocene alluvium are considered to have a high potential for containing significant vertebrate fossils. Any specimens encountered during pile driving and excavation activities would be damaged or destroyed by the construction equipment. Construction of the proposed project would result in a significant impact.

3.6.5.5.2 Operations

3.6.5.5.2.1 Ferry Terminal

Operations of the ferry terminal would not involve any ground disturbing activities which would expose or encounter deposits of Pleistocene alluvium. Operations of the ferry may result in the minor disturbance of underwater sediment deposits during ferry docking and departures and maintenance dredging. However, these underwater sediments are highly disturbed due to factors such as currents, turbidity, and previous dredging activities and have no potential for containing significant paleontological finds. Therefore, no impact would occur.

3.6.5.5.2.2 Visitor-Serving Uses

Operations of the visitor-serving uses would not involve any ground disturbing activities which would expose or encounter deposits of Pleistocene alluvium. Therefore, no impact would occur.

3.6.5.5.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operations of all components of the proposed project would not involve any ground-disturbing activities which would unearth, expose, or encounter deposits of Pleistocene alluvium. While operation of the ferry may result in minor disturbances to underwater surfaces during ferry docking and departures, these disturbances would be limited to highly disturbed underwater sediment, which has no potential for containing significant paleontological finds. Therefore, no impact would occur.

3.6.5.5.3 Mitigation Measures

For construction impacts, the following mitigation measure would reduce impacts to paleontological resources:

MM GEO-1: Excavation occurring at depths of 30 feet below ground surface (bgs) or greater has the potential to disturb Pleistocene alluvium which could contain paleontological resources. Prior to the start of excavation activities, the Port of Redwood City or their designee shall review the project design and specifications to determine if excavation will occur at depth of 30 feet bgs or greater. For excavation occurring at or below this depth, other than pile driving for which monitoring is not feasible, a qualified paleontologist shall examine final design construction plans and bore logs of the project site to determine if potentially fossiliferous strata underlying the site would be encountered by excavation and, if so, the qualified paleontologist shall prepare a Paleontological Mitigation Plan (PMP) that identifies the level of paleontological monitoring that should be implemented during excavation according to the Society of Vertebrate Paleontology (SVP)'s Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. The PMP shall focus on the depth of the Pleistocene alluvium at the site and the amount of disturbance of the Pleistocene units. The PMP shall include the following:

- Working Training Program. The paleontologist shall be present at a preconstruction meeting to consult with appropriate Port of Redwood City and construction contractor staff. During the meeting, the paleontologist shall conduct a Worker Training Program for all construction personnel involved with excavation work to learn procedures to follow in case of an unexpected paleontological discovery, including identification of potential paleontological material and the procedures to follow, and the correct personnel to contact in the event of a possible discovery.
- Procedure to be followed for a paleontological find. The procedure to be followed if a paleontological find is made and the find is determined to be significant shall include redirecting work around the location of the find while it is stabilized and removed. The Port of Redwood City or their designee shall ensure that the qualified paleontologist (and/or a designated paleontological monitor) is equipped to salvage fossils and samples of sediment as they are unearthed to avoid construction delays and empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Since Pleistocene alluvium yields small fossil specimens (microvertebrate fossils) that are likely to go unnoticed during typical large-scale paleontological monitoring, an adequate amount of sedimentary matrix shall be collected and processed to determine the potential for small fossils to be recovered prior to substantial excavations in those sediments. To avoid construction delays, these samples shall be transported to an off-site location for processing as described below. Screen washing and picking will be conducted in parallel with monitoring so that assessments may be made as to the utility of screen washing; negative finds may lead to stopping of bulk sample collection and screening.
- Recovery of specimens. Recovered specimens shall be prepared by the qualified paleontologist to a point of identification and permanent preservation, including washing of sediments to recover small invertebrate and vertebrate fossils.

- Curation. The PMP shall identify the curation procedure to be followed. The curation procedure shall require the Port of Redwood City to make certain that specimens shall be curated into a professional accredited museum repository with permanent retrievable storage. The final curation agreement will be included with the PMP. A report of findings, with an appended itemized inventory of specimens, shall be prepared. The report and inventory, when submitted to the professional accredited museum repository, shall signify completion of the program to mitigate impacts to paleontological resources.

3.6.5.5.4 Significance of Impact After Mitigation

Implementation of Mitigation Measure MM GEO-1 would require a qualified paleontologist (or paleontological monitor) to prepare a Paleontological Mitigation Plan (PMP) that identifies procedures for monitoring, recovery, and curation of significant paleontological finds that may be encountered during excavation that intersects with Pleistocene alluvium. This mitigation measure would reduce the significant impact to paleontological resources during construction where monitoring is feasible.

Monitoring is feasible during construction where the construction site is reasonably accessible and visible, where soil spoils can be reasonably observed, and where construction methods do not completely destroy any potential specimen. If soils are excavated prior to pile installation, this type of monitoring could be carried out. However, if piles are driven into the soils without prior excavation, monitoring is not feasible because of the nature of how the piles are installed. Further, some of the piles would be installed offshore where monitoring is not feasible. Consequently, MM GEO-1 applies to excavation but there is no feasible mitigation for impacts to paleontological resources during pile driving. Consequently, even with implementation of MM GEO-1, the construction of the proposed project could destroy a unique paleontological resource and the impact on paleontological resources would remain ***significant and unavoidable*** after mitigation.

3.6.5.6 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

Geologic hazard impacts, such as fault rupture, ground shaking, lateral spreading, subsidence, and liquefaction tend to be location-specific and do not compound or increase in combination with past, present, or probable future projects. Any future development within the geographic scope of the City (i.e., the boundary of the City) would encounter geologic and seismic risks based on their individual site constraints.

The cumulative impact analysis considers the anticipated population growth within the City. The City is built out and its population is expected to increase by nearly 20 percent between 2020 and 2040 per ABAG projections. The cumulative population would continue to be exposed to seismic and geologic hazards because the City is located within a seismically-active region. The areas adjacent to the Bay consist of

historic occurrence of liquefaction. The closest earthquake fault zone—the San Andreas fault—is located 6.5 miles from the project site. Impacts associated with the exposure of future populations to the existing regional seismic activity risk may differ depending on whether population growth occurs within new development that meets current seismic safety design requirements or within older existing developments that are not designed/constructed for seismic safety. In the case of the former, potential impacts related to seismic and other geologic conditions would be addressed by implementation and enforcement of the local grading ordinance; compliance with building code standards; structural regulations adopted and enforced by the City; and public safety policies and programs adopted by the City. Therefore, implementation of the proposed project would not result in a significant impact relative to geologic hazards. The forecasted growth and increased development coupled with the proposed project would not result in significant impacts related to geologic hazards. The proposed project's contribution to an individual effect would not be cumulatively considerable.

The project site is highly disturbed and consists of artificial fill on top of Bay Mud, which have no and low potential for containing significant paleontological finds, respectively. However, the Bay Mud overlies Pleistocene alluvium, which has a high potential for containing significant paleontological finds. The installation of deep piles to support the access pier and the float has the potential to have an adverse effect on unknown paleontological resources. Therefore, construction of the proposed project has the potential to have a substantial adverse change in the significance of an unknown paleontological resource. Considered cumulatively with other future development that may occur in Bay Mud and require pile driving, a significant cumulative impact would occur. As discussed under Impact 3.6-5 above (**Section 3.6.5.5**), Mitigation Measure MM GEO-1 would reduce the significant impact to paleontological resources during construction where monitoring is feasible. However, even with implementation of MM GEO-1, the construction of the proposed project could destroy a unique paleontological resource and impact paleontological resources. Therefore, the proposed project would result in a cumulatively considerable contribution to significant cumulative impacts relative to paleontological resources.

3.6.5.6.1 Mitigation Measures

Mitigation Measure MM GEO-1, presented in **Section 3.6.5.5.3** above, would be implemented to address the proposed project's cumulatively considerable contribution to impacts on paleontological resources.

3.6.5.6.2 Significance of Impact After Mitigation

Even with implementation of MM GEO-1, the construction of the proposed project could destroy a unique paleontological resource and cumulative impacts on paleontological resources and would remain ***significant and unavoidable*** after mitigation

3.6.6 Significant Unavoidable Impacts

Impacts to paleontological resources associated with construction of the proposed project would be significant and unavoidable; there would be no impact to paleontological resources associated with operation of the proposed project. Cumulative impacts to paleontological resources would be significant and unavoidable. There would be no significant and unavoidable impacts related to geology and soils associated with construction and operation of the proposed project.

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Section 3.7
Greenhouse Gas Emissions

3.7.1 Introduction

This section describes the regulatory framework and existing conditions related to greenhouse gas (GHG) emissions, and the impacts from construction and operation of the proposed project.

The analysis is based on the modeling results reported in Appendix B, Air Quality, Greenhouse Gases, Energy Calculations, and Health Risk Assessment, of this Draft EIR. Transportation-sector GHG emissions are based on trip generation and vehicle miles traveled (VMT) data contained in Appendix H, Transportation Study Report, of this Draft EIR. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.7.2 Methodology

The proposed project GHG emissions inventory was modeled using the California Emissions Estimator Model (CalEEMod) Version 2022.1[1] and includes the following sectors:

- **On-Road Transportation.** On-road transportation emissions are based on the VMT estimates for the proposed project (see Appendix H of this Draft EIR). The fleet mix for the ferry terminal vehicle traffic, being a transit-oriented facility, was assumed to be 100 percent passenger vehicles, and the fleet mix for the future visitor-serving uses was assumed to consist of 97 percent passenger vehicles and 3 percent trucks.
- **Off-Road Equipment.** Emission estimates for construction-related off-road and waterborne equipment are based on data obtained from OFFROAD2021, version 1.0.7. Ferry emissions are primarily based on emission factors for R99 renewable diesel fuel derived from data retrieved from the California Air Resources Board (CARB) and the U.S. Energy Information Administration (EIA) and the fuel consumption rates provided by the Water Emergency Transportation Authority (WETA).
- **Area Sources.** Area sources generated from use of consumer products, cleaning supplies, and landscaping equipment are based on CalEEMod default emission rates and on the assumed building square footage.

[1] The CalEEMod User Guide, including its default assumptions, is provided at: https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf.

- **Energy.** Energy estimates for the landside improvements associated with the ferry terminal (e.g., lighting, ferry float, restroom, electric vehicles (EV) charging stations, miscellaneous electrical load) use load estimates from COWI and assumed operating hours for individual components. For instance, lighting loads were multiplied by the annual average hours of daylight for Redwood City to identify the annual energy consumption estimates. Building energy consumption estimates for landside improvements associated with the future visitor-serving uses (e.g., office, hotel, restaurant) use the CalEEMod version 2022.1 default energy (i.e., electricity and natural gas) rates. CalEEMod default energy consumption for nonresidential land uses is based on the California Energy Commission (CEC)'s 2018–2030 Uncalibrated Commercial Sector Forecast (commercial forecast) compiled by the CEC in 2019. Use of the CalEEMod default energy rates results in conservative estimates compared to the 2022 Building Energy Efficiency Standards because the commercial forecast is based on the energy demand per square foot of building space, land use subtype, and end use for building stocks currently in operation as of the year 2019, which don't necessarily reflect the latest building energy code compliance. It is anticipated that new nonresidential buildings under the current Building Energy Efficiency Standards will generally result in lower energy use than disclosed in this analysis. The energy consumption estimates described above were then used in CalEEMod to calculate energy-source GHG emissions during operation.
- **Construction**. The project-related construction emissions are based on information provided by COWI and CalEEMod defaults. Raising the site elevation was modeled for the period between October 2025 and May 2026; construction of the ferry terminal, access and other associated improvements was modeled for the period between June 2026 and September 2026; and construction of the visitor-serving uses was modeled for the period between October 2026 and October 2028. The construction equipment mix used in the model reflects information provided by COWI and supplemented with CalEEMod defaults for missing values, such as equipment horsepower and load factor. Because equipment and vehicle fuel efficiency standards improve year over year and older models are retired and newer models acquired for construction fleets, should construction activities occur in later years than what is modeled herein, emissions would be lower than what is disclosed in this analysis. Therefore, earlier construction years utilized in the modeled emission results reflect a conservative analysis for potential construction emissions impacts.

Life-cycle emissions are not included in this analysis because not enough information is available for the proposed project, such that emissions would be speculative.[2]

[2] Life-cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Natural Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions, found that lifecycle analyses were not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009 available at https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf). Because the amount of materials consumed during the operation or construction phases of individual development projects is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. Source: California Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research [OPR]). June 19, 2008. Technical Advisory: CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review. Available: https://lci.ca.gov/wp-content/uploads/20210720-june08-ceqa.pdf.

3.7.3 Environmental Setting

3.7.3.1 Regulatory Setting

3.7.3.1.1 Federal

The U.S. Environmental Protection Agency (USEPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The USEPA's final findings respond to the 2007 U.S. Supreme Court decision in *Massachusetts v. Environmental Protection Agency* (2007) 127 S. Ct. 1438 that GHG emissions are air pollutants under the Clean Air Act (CAA) (42 United States Code [U.S.C.] Section 7401 et seq.). The findings allowed the USEPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the U.S. Department of Transportation.[3]

To regulate GHGs from passenger vehicles under the CAA, the USEPA was required to issue an endangerment finding.[4] On December 15, 2009, USEPA issued an Endangerment Finding and Cause or Contribute Finding under Section 202(a) of the CAA. The findings identified emissions of six key GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6)—as threatening the public health and welfare of current and future generations, in their current and projected concentrations in the atmosphere. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions and, according to guidance by the Bay Area Air District (Air District),[5] are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

On January 20, 2025, the President of the United States signed an executive order, *Unleashing American Energy*, which directed the USEPA to eliminate the social cost of carbon calculation from any federal permitting or regulatory decision and submit recommendations on the legality and continued applicability of the 2009 endangerment finding, among other directives.[6] On July 29, 2025, the USEPA released its proposal to rescind the 2009 endangerment finding and repeal all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines pursuant to the federal CAA Section 202(a).[7] The proposed rule would remove GHG-related provisions from 40 CFR Part 600 without affecting provisions related to Corporate Average Fuel Economy (CAFE) standards and fuel economy labeling.[8]

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[3] U.S. Environmental Protection Agency (USEPA). December 7, 2009. EPA: Greenhouse Gases Threaten Public Health and the Environment: Science Overwhelmingly Shows Greenhouse Gas Concentrations at Unprecedented Levels due to Human Activity news release. Available: https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html.

[4] U.S. Environmental Protection Agency (USEPA). December 15, 2009. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule (effective on January 14, 2010). Available: https://www.epa.gov/sites/default/files/2021-05/documents/federal_register-epa-hq-oar-2009-0171-dec.15-09.pdf.

[5] The Bay Area Air District is a streamlined name change announced by the Bay Area Air Quality Management District (BAAQMD) in January 2025. Documents published by the Air District that are referenced in this EIR are attributed to BAAQMD.

[6] The White House. January 20, 2025. Unleashing American Energy. Available: https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/.

[7] U.S. Environmental Protection Agency. July 29, 2025. EPA Releases Proposal to Rescind Obama-Era Endangerment Finding, Regulations that Paved the Way for Electric Vehicle Mandates news release. Available: https://www.epa.gov/newsreleases/epa-releases-proposal-rescind-obama-era-endangerment-finding-regulations-paved-way.

[8] Federal Register. 2025. Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards: Proposed Rule, Vol. 90 Federal Register No. 146, 36288. Available: https://www.federalregister.gov/documents/2025/08/15/2025-15512/reconsideration-of-2009-endangerment-finding-and-greenhouse-gas-vehicle-standards-extension-of.

In May 2025, the U.S. Senate approved several bills under the Congressional Review Act which purported to rescind California's CAA waiver. (House Joint Resolution [H.J.Res.] 87, H.J.Res. 88, H.J.Res. 89.) However, the U.S. Senate Parliamentarian and the Government Accountability Office (GAO) both concluded that the bills were illegal.[9] California and other states also filed a lawsuit challenging the waiver revocations. (See *State of California et al v. U.S.A et al.* (2025) N.D. Cal Case No. 25-CV-04966). Furthermore, the 2026 administration rescinded the GHG endangerment finding and removed federal GHG motor vehicle emissions standards from 40 CFR part 600. (Vol. 90 Federal Registrar, No. 146, 36288.) This decision has been challenged in *American Public Health Association, et al. v. United States Environmental Protection Agency and Lee Zeldin, Administrator*, Case No. 26-1037 (D.C. Cir., file Feb. 18, 2026).

U.S. Mandatory Reporting Rule for GHGs (2009)

In response to the endangerment finding, the USEPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (e.g., large stationary sources) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of carbon dioxide-equivalent (CO_2e)[10] per year are required to submit an annual report.[11]

Update to Corporate Average Fuel Economy Standards (2017 to 2026)

The federal government issued new CAFE standards in 2012 for vehicle model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (MPG) for model year 2025. However, on March 30, 2020, the USEPA finalized updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026, which preempted state and local laws related to fuel economy standards. Under SAFE, the fuel economy standards increased 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012, requiring a fleet average of 40.4 MPG for model year 2026 vehicles.[12]

On June 7, 2024, NHTSA announced final CAFE standards for passenger cars and light trucks built in model years 2027 to 2031 and final fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030 to 2035. The final rules require an industry fleetwide average of approximately 50.4 mpg for passenger cars and light trucks in model year 2031, by increasing fuel economy by 2 percent year over year for passenger cars (model years 2027–2031) and for light trucks (model years 2029–2031). For heavy-

[9] U.S. Government Accountability Office. March 6, 2025. Observations Regarding the Environmental Protection Agency's Submission of Notices of Decision on Clean Air Act Preemption Waivers as Rules Under the Congressional Review Act. Available: https://www.gao.gov/products/b-337179#:~:text=As%20outlined%20in%20the%20letter,normally%20issue%20a%20legal%20decision; see also Schumer, Charles E. U.S. Senator Minority Leader et al, May 1, 2025. Letter to U.S. Senate Majority Leader John Thune and U.S. Senate Majority Whip John Barrasso. Available: https://www.padilla.senate.gov/wp-content/uploads/Letter-to-Thune-Barrasso-re-CAA-Waivers-CRA-Parliamentarian-Overrule.pdf.

[10] As discussed in **Section 3.7.4**, CO_2e is the standard unit to measure the amount of GHGs in terms of the amount of CO_2 that would cause the same amount of warming. CO_2e is based on the Global Warming Potential (GWP) ratios between the various GHGs relative to CO_2.

[11] U.S. Environmental Protection Agency (USEPA). October 30, 2009. Mandatory Reporting of Greenhouse Gases; Final Rule (effective on December 29, 2009). Available: https://www.govinfo.gov/content/pkg/FR-2009-10-30/pdf/E9-23315.pdf.

[12] Federal Register. 2020. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84. Available: https://www.federalregister.gov/documents/2020/04/30/2020-06967/the-safer-affordable-fuel-efficient-safe-vehicles-rule-for-model-years-2021-2026-passenger-cars-and.

duty pickup trucks and vans, the final rule would increase fuel efficiency at a rate of 10 percent per year (model years 2030–2032) and 8 percent per year (model years 2033–2035).[13]

On June 11, 2025, the NHTSA published the final rule, "Resetting the Corporate Average Fuel Economy Program." This interpretive rule issued by the NHTSA does not immediately change or reverse current fuel economy standards; however, the rule clarifies the NHTSA's interpretation of its obligations for CAFE standards stemming from the Energy Policy and Conservation Act of 1975 and the Energy Independence and Security Act of 2007. The rule asserts that some regulations, such as those established under previous presidential administrations, improperly considered EVs when identifying the "maximum feasibility" average fuel economy level upon which CAFE standards are developed, thereby establishing a legal foundation for future rollbacks of CAFE standards.

Individual cities and counties lack the ability to regulate fuel economy standards. 42 U.S.C. Section 7543(a) states: "No state or any political subdivision therefore shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part."

3.7.3.1.2 State

Executive Order S-03-05

EO S-03-05 was signed June 1, 2005, and set the following GHG reduction targets for the State:

- Reduce GHG emissions to year 2000 levels by 2010
- Reduce GHG emissions to year 1990 levels by 2020
- Reduce GHG emissions to 80 percent below 1990 emission levels by 2050[14]

Assembly Bill 32, the Global Warming Solutions Act (2006)

AB 32 was passed by the California State legislature on August 31, 2006, to codify the emissions reduction targets established in EO S-03-05 of 1990 levels by 2020. AB 32 required CARB to develop a Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32, and to update it every five years. CARB published the first scoping plan in 2008.[15] Based on this guidance, CARB approved a 1990 Statewide GHG level and 2020 target of 431 million metric tons (MMT) CO_2e, which was achieved in 2016.

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions in the State to 40 percent of 1990 levels by 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the State and requires State agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to

[13] National Highway Traffic Safety Administration (NHTSA). 2024. Corporate Average Fuel Economy webpage. Available: https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy. Accessed February 12, 2025.

[14] State of California. 2005. Executive Order S-3-05. Available: https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/5129-5130.pdf.

[15] California Air Resources Board (CARB). September 28, 2018. AB 32 Global Warming Solutions Act of 2006 fact sheet. Available: https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006.

conduct triennial updates of the California adaptation strategy, Safeguarding California, in order to ensure climate change is accounted for in State planning and investment decisions.[16]

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, codifying the EO B-30-15 goal for 2030 into a Statewide mandated legislative target (~260 MMT CO_2e).[17] The most current Statewide GHG emission inventory for California shows total 2022 GHG emissions at 371.1 MMT CO_2e.[18] AB 197 established a joint legislative committee on climate change policies and requires CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.[19,20]

Executive Order B-55-18

EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs CARB to work with relevant State agencies to ensure future scoping plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other State goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, remaining emissions must be offset by equivalent net removals of CO_2 from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.[21]

Assembly Bill 1279

AB 1279, signed by Governor Newsom in September 2022, codifies the carbon neutrality targets of EO B-55-18 for 2045 and sets a new legislative target for 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. CARB was required to update the Scoping Plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.[22]

[16] State of California. April 29, 2015. Governor Brown Establishes Most Ambitious Greenhouse Gas Reduction Target in North America. Available: https://archive.gov.ca.gov/archive/gov39/2015/04/29/news18938/index.html.

[17] California Air Resources Board (CARB). September 20, 2024. California Greenhouse Gas Emissions from 2000 to 2022: Trends of Emissions and Other Indicators. Available: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf.

[18] California Air Resources Board (CARB). 2025. Current California GHG Emission Inventory Data webpage. Available: https://ww2.arb.ca.gov/ghg-inventory-data#:~:text=Background,not%20included%20in%20the%20inventory. Accessed September 8, 2025.

[19] State of California. 2016. Assembly Bill No. 197. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB197.

[20] State of California. 2016. Senate Bill No. 32. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32.

[21] State of California. 2018. Executive Order B-55-18. Available: https://archive.gov.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf.

[22] State of California. 2022. Assembly Bill No. 1279. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1279.

2022 Climate Change Scoping Plan

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State's anthropogenic GHG emissions.[23] The Scoping Plan was updated to address the carbon neutrality goals of EO B-55-18 and the ambitious GHG reduction target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as directed by AB 1279. Previous scoping plans focused on specific GHG reduction targets for industrial, energy, and transportation sectors—to meet 1990 GHG emission levels by 2020, and then the more aggressive target of 40 percent below 1990 levels by 2030 (~260 MMT CO_2e). The 2022 Scoping Plan's carbon neutrality initiatives include expanding actions to capture and store carbon, including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution. The 2022 Scoping Plan was informed by the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6).[24] CARB's 2022 Scoping Plan identifies strategies shown in **Table 3.7-1** that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals.

Table 3.7-1 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide electric vehicle (EV) charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed State building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
Vehicle Miles Traveled (VMT) Reduction	Reduce or eliminate minimum parking standards.
	Implement complete streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, and other approaches.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements).

[23] California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

[24] Intergovernmental Panel on Climate Change (IPCC). 2022. Sixth Assessment Report: Climate Change 2023. Available: https://www.ipcc.ch/report/ar6/syr/.

Priority Area	Priority Strategies
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act, was adopted in 2008 to connect the GHG emissions reduction targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (i.e., excluding emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the Bay Area region, which includes Redwood City. Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.[25]

2017 Update to SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these new targets. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. The updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of State technology and fuels strategies and any potential future State strategies such as Statewide road user pricing. The updated targets call for greater per-capita GHG emission reductions which, in 2035, either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. CARB's updated targets result in an additional reduction of over 8 MMT CO_2e in 2035 compared to the prior targets.[26]

[25] State of California. 2008. Senate Bill No. 375. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375.

[26] California Air Resources Board (CARB). February 2018. Updated Final Staff Report - Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. Available: https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf.

Transportation Sector Specific Regulations

Advanced Clean Cars II

In August 2022, CARB adopted the Advanced Clean Cars II rule (AC II), which requires all new passenger vehicles, trucks, and sports utility vehicles sold in California to be zero emissions by 2035. The regulation amends the Zero-Emission Vehicle Regulation to require an increasing number of zero-emission (ZE) vehicles to support the 2020 EO N-79-20 and amends the Low-Emission Vehicle Regulations to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions. This rule will substantially reduce air pollutants that threaten public health and would further develop the ZE vehicles market starting with the 2026 model year. In April 2023, CARB approved the Advanced Clean Fleets, which requires a phased-in transition toward zero-emission medium- and heavy-duty vehicles. Under the new rule, fleet owners operating vehicles for private services (such as Postal Service, State, and local government fleets) will begin their transition to ZE vehicles starting in 2024. The rule also requires an end to combustion truck sales in 2036 and follows the 2020 adoption of the Advanced Clean Trucks rule, which put in place a requirement for manufacturers to increase the sale of ZE trucks.[27] As of the writing of this EIR, CARB has rescinded its waiver requests for several regulations including the In-Use Locomotive Regulation, portions of the Advanced Clean Fleets regulation, and the Transportation Refrigeration Unit regulation. CARB is not enforcing existing portions of the Advanced Clean Fleets regulation that require a federal waiver or authorization, such as those applicable to high-priority and drayage fleets.[28]

On June 12, 2025, Public Law 119-15, enacting HJR 87, became law. As with PL 119-16, which establishes Congressional disapproval of the rule submitted by the USEPA relating to "California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption; Notice of Decision", Public Law 119-15 utilized the Congressional Review Act to disapprove USEPA's waiver allowing California to enforce stricter emissions standards for heavy-duty vehicles under the CAA. The disapproved rule included programs such as the Advanced Clean Trucks regulation and zero-emission requirements for airport shuttles. PL 119-15 law prevents USEPA from implementing or reissuing the same or similar rules without new congressional authorization. This effectively blocks California, and other states that follow its standards, from enforcing these specific vehicle emission and warranty regulations. However, the implications of this federal law on the State's capability to enforce its independent heavy-duty vehicle emissions standards are uncertain at this time, as the California Attorney General filed a lawsuit challenging PL 119-15 on June 12, 2025. Whether this action will be successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the heavy-duty vehicle regulations during the legal process.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I set GHG emissions standards for new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent

[27] California Air Resources Board (CARB). August 25, 2022. California moves to accelerate to 100% new zero-emission vehicle sales by 2035 news release. Available: https://ww2.arb.ca.gov/news/california-moves-accelerate-100-new-zero-emission-vehicle-sales-2035.

[28] California Air Resources Board (CARB). 2025. Advanced Clean Fleets webpage. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets. Accessed September 8, 2025.

in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that set more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. (See also the previous discussion in federal regulations under "*Update to Corporate Average Fuel Economy Standards [2017 to 2026]*.")

In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZEVs into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.[29]

Executive Order S-01-07

On January 18, 2007, the State set a new low carbon fuel standard (LCFS) for transportation fuels sold in the State. EO S-01-07 set a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applied to refiners, blenders, producers, and importers of transportation fuels, and used market-based mechanisms to allow these providers to choose the most economically feasible methods for reducing emissions during the "fuel cycle."[30] As of June 2025, the LCFS has displaced 320 million MT CO_2 since 2011.[31] Effective July 1, 2025, CARB updated the LCFS regulation to focus public and private sector investment towards increasing cleaner fuel and transportation options for Californians, accelerating the deployment of zero-emission infrastructure, and helping the State achieve legally mandated air quality and climate targets. The updates set targets to reduce the carbon in California's transportation fuel pool by 30 percent by 2030 and by 90 percent by 2045.[32]

Executive Order B-16-2012

On March 23, 2012, the State directed CARB, the CEC, the Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZEVs in major metropolitan areas, including infrastructure to support them (e.g., EV charging stations). EO B-16-2012 also directed the number of ZEVs in California's State vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The EO also established a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.[33]

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[29] State of California. 2002. Assembly Bill No. 1493. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020AB1493.

[30] State of California. 2007. Executive Order S-01-07. Available: https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/5107-5108.pdf.

[31] California Air Resources Board (CARB). June 7, 2025. CARB announces latest LCFS updates will be implemented next month news release. Available: https://ww2.arb.ca.gov/news/carb-announces-latest-lcfs-updates-will-be-implemented-next-month.

[32] California Air Resources Board (CARB). July 1, 2025. Legal Disclaimer & User's Notice: Unofficial electronic version of the Low Carbon Fuel Standard Regulation. Available: https://ww2.arb.ca.gov/sites/default/files/2025-08/2025_lcfs_fro_oal-approved_unofficial_08112025.pdf.

[33] State of California. 2012. Executive Order B-16-2012. Available: https://archive.gov.ca.gov/archive/gov39/2012/03/23/news17472/index.html.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed EO N-79-20, establishing a goal that 100 percent of in-State sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the State are ZE by 2045, where feasible. The EO's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.[34] The ACC II Program provides the regulatory framework for ensuring the sales requirement goal of EO N-79-20 to ultimately reach 100 percent ZEV sales in the State by 2035. As discussed, implementation of ACC II is uncertain, following Public Law No. 119-16.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the Renewable Portfolio Standards (RPS), certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the California legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production decreases indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.[35]

Senate Bill 350

SB 350 (de Leon) established tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.[36]

Senate Bill 100

SB 100 replaced SB 350, instead requiring the RPS for public-owned facilities and retail sellers to consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, SB 100 establishes an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under SB 100, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve these goals.[37]

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[34] State of California. 2020. Executive Order N-79-20. Available: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf.

[35] California Energy Commission (CEC). 2016. Renewables Portfolio Standard - Docket # 11-RPS-01, 14-RPS-01, and 16-RPS-01. Available: https://planning.lacity.gov/eir/CrossroadsHwd/deir/files/references/C50.pdf. Accessed February 21, 2025.

[36] California Energy Commission (CEC). 2026. Clean Energy and Pollution Reduction Act - SB 350 webpage. Available: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350. Accessed August 13, 2026.

[37] SCG Knowledge Hub. 2018. California Governor Signs 100% Renewables into Law as the State Aims for Carbon Neutrality. Available: https://sdg.iisd.org/news/california-governor-signs-100-renewables-into-law-as-the-state-aims-for-carbon-neutrality/.

Senate Bill 1020

SB 1020 sets interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.[38] As of 2022, PG&E procured approximately 40 percent of its electricity from renewable sources under the law.[39] As of 2023, PG&E's electricity is generated by 100 percent GHG free sources (which includes sources like nuclear, which fall outside of the RPS credits).[40]

Energy Efficiency Regulations

Title 24 of the California Code of Regulations requires California buildings to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), and Part 12 (Referenced Standards Code). The California Building Code is applicable to all development in California. (Health and Safety Code Sections 17950 and 18938(b).)

California Building Code: Title 24, Part 6, Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2024 (CCR [California Code of Regulations] Title 24, Part 6). Title 24 Part 6 requires the design of building shells and building components to conserve energy. The standards are updated every three years to allow consideration and incorporation of new energy efficiency technologies and methods.

In 2024, the CEC adopted the 2025 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission. The 2025 standards will become effective and replace the existing 2022 standards on January 1, 2026. The 2025 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances.[41] The Building Energy and Efficiency Standards and CALGreen undergo a triennial update with a goal to achieve zero net energy for new buildings by 2030.

Starting in 2020, the California Energy Code was revised to require solar, and the Code requires "All single-family residential buildings shall have a newly installed photovoltaic (PV) system or newly installed PV modules meeting the minimum qualification requirements specified in Joint Appendix JA11." (CCR, Title 24, Part 6, Section 150.1(c)(14).) The California Energy Code was further updated in 2022 to require solar for multifamily buildings, and energy storage for structures greater than three habitable stories. (CCR, Title 24, Part 6, Sections 170.2(f), (g), (h).) Similarly, solar photovoltaics and energy storage are now

[38] State of California. 2022. Senate Bill No. 1020 - Clean Energy, Jobs, and Affordability Act of 2022. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1020.

[39] Pacific Gas and Electric (PG&E). 2023. 2022 Power Mix. Available: https://www.energy.ca.gov/filebrowser/download/6048.

[40] Pacific Gas and Electric (PG&E). April 22, 2024. News & Events: PG&E Customers' Electricity 100% Greenhouse Gas-Free in 2023. Available: https://investor.pgecorp.com/news-events/press-releases/press-release-details/2024/PGE-Customers-Electricity-100-Greenhouse-Gas-Free-in-2023/default.aspx.

[41] California Energy Commission (CEC). 2021. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D. Available: https://www.energy.ca.gov/publications/2021/environmental-impact-report-amendments-building-efficiency-standards-2022-energy.

required for grocery stores, offices, financial institutions, unleased tenant space, retail, schools, warehouses, auditoriums, convention centers, hotels/motels, libraries, medical office buildings/clinics, restaurants, theaters, and mixed-use buildings where one or more of these building types constitute at least 80 percent of the floor area. (CCR, Title 24, Part 6, Section 140.10(a).)

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[42]

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.[43]

Solid Waste Diversion Regulations

Assembly Bill 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code [PRC] Section 40050 et seq.) set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the Act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.[44]

Assembly Bill 341

AB 341 (Chapter 476, Statutes of 2011) increased the Statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multi-family residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.[45]

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[42] California Building Standards Commission. July 2022 (Updated 2024). 2022 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11. Available: https://codes.iccsafe.org/content/CAGBC2022P1/copyright.

[43] California Energy Commission (CEC). 2026. Appliance Efficiency Regulations. Available: https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20. Accessed August 11, 2026.

[44] State of California. 1989. Assembly Bill No. 939. Available: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=198919900AB939.

[45] State of California. 2011. Assembly Bill No. 341. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341.

Assembly Bill 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, PRC Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The Act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.[46]

Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses and multi-family residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.[47]

Water Efficiency Regulations

Senate Bill X7-7

The 20x2020 Water Conservation Plan was issued by the California Department of Water Resources (DWR) in 2010 pursuant to SB 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized DWR to prepare a plan implementing urban water conservation requirements, which DWR did through the 20x2020 Water Conservation Plan. In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of a 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.[48]

Assembly Bill 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires CEC to consult with DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves, to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.[49]

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[46] Public Resources Code Section 42900 et seq. Available: https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=PRC&division=30.&title=&part=3.&chapter=18.&article=.

[47] State of California. 2014. Assembly Bill No. 1826. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1826&search_keywords.

[48] California Department of Water Resources et al. 2010. 20x2020 Water Conservation Plan. Available: https://cawaterlibrary.net/wp-content/uploads/2010/02/20x2020_Water_Conservation_Plan.pdf.

[49] State of California, Department of Consumer Affairs, California Architects Board - Landscape Architects Technical Committee. 2025. Model Water Efficient Landscape Ordinance (MWELO) Overview webpage. Available: https://www.latc.ca.gov/general_information/mwelo/. Accessed March 3, 2025.

Short-Lived Climate Pollutant Reduction Strategy

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes.

SB 1383 required CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the State's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use.[50] In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.[51]

3.7.3.1.3 Regional

Plan Bay Area 2050+

MTC and the Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2050 on October 21, 2021.[52] Plan Bay Area 2050+,[53] adopted in March 2026, is the latest long-range plan and a limited and focused update of the Plan Bay Area 2050. Plan Bay Area 2050+ provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375. Under the Plan Bay Area 2050+ strategies, 62 percent of all Bay Area households would live within one-half mile of frequent transit services by 2050, including the vast majority of low-income households.[54] Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work from 58 percent in 2023 to 48 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the State mandate of a 19-percent reduction in per-capita emissions by 2035 — but only if all strategies are implemented.[55]

To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area 2050+ land use concept plan concentrates most of the new regional population and employment growth in Growth Geographies, including:

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[50] California Air Resources Board (CARB). March 2017. Final Short-Lived Climate Pollutant Reduction Strategy. Available: https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final.

[51] California Air Resources Board (CARB). March 2017. Final Short-Lived Climate Pollutant Reduction Strategy. Available: https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final.

[52] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). October 2021. Plan Bay Area 2050. Available: https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

[53] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[54] Plan Bay Area 2050+ defines "frequent transit" services as having headways of 15 minutes or less during peak hours.

[55] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

- Priority Development Areas (PDA) — Areas generally near existing job centers or frequent transit that are locally identified for housing and job growth.
- Priority Production Areas (PPA) — Industrial areas that are important to the regional economy and local middle-wage job growth. Like PDAs, PPAs are identified by local governments.
- Transit-Rich Areas (TRA) — Places near rail, ferry or frequent bus service that were not already identified as PDAs, including all areas outside PDAs subject to MTC's Transit-Oriented Communities Policy.
- High-Resource Areas (HRA) — State-identified places with well-resourced schools, transit service and access to jobs, among other criteria.

An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The proposed project is not within any identified PDAs, PPAs, TRAs, or HRAs.[56]

2017 Clean Air Plan

The Air District adopted the 2017 "Clean Air Plan: Spare the Air, Cool the Climate" (2017 Clean Air Plan) on April 19, 2017. The 2017 Clean Air Plan lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy was developed to be implemented in three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone (O_3), particulate matter, toxic air contaminants, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources; (2) transportation; (3) energy; (4) agriculture; (5) natural and working lands; (6) waste management; (7) water; (8) super-GHG pollutants; and (9) buildings. The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.

[56] Metropolitan Transportation Commission (MTC). 2023. Priority Development Areas. Available: https://opendata.mtc.ca.gov/datasets/4df9cb38d77346a289252ced4ffa0ca0/explore?location=37.495038%2C-122.206198%2C13.80.

- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.[57]

Bay Area Commuter Benefits Program

Under Air District Regulation 14, Model Source Emissions Reduction Measures, Rule 1, Bay Area Commuter Benefits Program, employers with 50 or more full-time employees within the Air District are required to register and offer commuter benefits to employees. In partnership with the Air District and MTC, the Rule's purpose is to improve air quality, reduce GHG emissions, and decrease the Bay Area's traffic congestion by encouraging employees to use alternative commute modes, such as transit, vanpool, carpool, bicycling, and walking. The benefits program allows employees to choose from one of four commuter benefit options, including a pre-tax benefit, employer-provided subsidy, employer-provided transit, and alternative commute benefit.[58]

3.7.3.1.4 Local

Redwood City General Plan 2010

Adopted on October 11, 2010, the Redwood City General Plan is a comprehensive plan built around a series of key goals, policies, and programs for long-term physical development of the community.[59] The General Plan establishes the basis for zoning regulations and guides the evaluation of development proposals. Additionally, it creates the framework for economic development, transportation improvements, and balancing residents' desires regarding sustainability, City services, parks, and cultural and historic preservation. The General Plan goals, policies, and programs that are relevant to GHG emissions are primarily in the Public Safety Element.

The key goal and policy of the General Plan relevant to this GHG emissions analysis of the proposed project are included in **Table 3.7-2**.

[57] Bay Area Air Quality Management District. 2017. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[58] Bay Area Air Quality Management District. 2025. Commuter Benefits Program webpage. Available: https://www.baaqmd.gov/rules-and-compliance/commuter-benefits. Accessed March 3, 2025.

[59] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

Table 3.7-2 Key GHG Emissions Policies and Strategies in the Redwood City General Plan

Goal/Policy Number	Goal/Policy Text
Public Safety Element	
Policy PS-1.3	Pursue efforts to reduce air pollution and GHG emissions by promoting the use of renewable energy (e.g., solar, wind, and hydroelectric power), and implement effective energy conservation and efficiency measures.
Goal PS-4	Promote efficient management and use of energy resources to help minimize greenhouse gas emissions.

Source: City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Redwood City Climate Action Plan

Adopted in November 2020, the Climate Action Plan (CAP) is a comprehensive strategy to reduce GHG emissions through aggressive policies and adoption of clean technologies.[60] The CAP focuses on municipal operations as well as issues in the community, including how residents, organizations, and businesses can contribute to Redwood City's emission reduction goals. The City's CAP GHG reduction goal is to reduce carbon emissions 50 percent below 2005 levels by 2030, an interim step toward the ultimate goal of achieving Statewide target of carbon neutrality well before 2045. The CAP outlines specific measures to reduce GHG emissions from four strategies: energy and water, transportation and land use, solid waste, and food and consumption. The CAP also outlines an implementation and monitoring program to ensure that emissions targets are met. Overall, this CAP documents how Redwood City plans to collaborate with partners in county, State, and federal government, along with community organizations and local businesses, to create new programs, services, and policies that will support the community in taking actions that reduce GHG emissions.

City of Redwood City Municipal Code

The City of Redwood City's Municipal Code includes various directives pertaining to GHG emissions. The Redwood City Municipal Code is organized by chapter, article, and section. Most provisions related to GHG impacts are included in Chapter 47, *Mandatory Organic Waste Disposal Reduction*, and Chapter 9, *Buildings*.

- Chapter 47, *Mandatory Organic Waste Disposal Reduction*, lists requirements for organic and solid waste, in compliance with State recycling laws, State organic recycling laws, and the Short-Lived Climate Pollutant Reduction Act of 2016.
- Article IV, *Adoption of 2022 State Codes*, adopts the 2022 California Building Standards, Electric, and Energy Code.
- Article XIII, *Electrical Vehicle Charging Stations*, outlines the requirements and application standards for electrical vehicle charging stations (EVCS) imposed by State and local permitting authorities.

[60] City of Redwood City. November 2020. Climate Action Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/22781/637426822669070000.

- Article XV, *Amendments to 2022 California Green Building Standards Code*, reflects amendments to the 2022 California Green Building Standards Code including mandatory EV charging infrastructure for new construction and energy efficiency standards. Section 9.258 of the Redwood City Municipal Code states that all new constructed buildings shall be all-electric. However, this provision is currently unenforceable; on April 17, 2023, the Ninth Circuit Court of Appeals ruled in *California Restaurant Association v. City of Berkeley,* thereby invalidating a Berkeley, California ordinance prohibiting natural gas infrastructure in newly-constructed buildings and holding it preempted by Section 6297(c) of the federal Energy Policy and Conservation Act (EPCA).

3.7.4 Existing Conditions

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The IPCC has identified four major GHGs—water vapor, CO_2, CH_4, and O_3—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are N_2O, SF_6, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and chlorofluorocarbons (CFCs).[61,62,63] The major GHGs applicable to the proposed project are briefly described.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (i.e., oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (i.e., sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high Global Warming Potential (GWP) gases. GWP is a metric used to describe how much heat a molecule of a GHG absorbs relative to a

[61] Intergovernmental Panel on Climate Change (IPCC). 2001. Third Assessment Report: Climate Change 2001. Available: https://digitallibrary.un.org/record/466959?v=pdf.

[62] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals); however, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

[63] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. The share of black carbon emissions from transportation is dropping rapidly and is expected to continue to do so between now and 2030 as a result of California's air quality programs. The remaining black carbon emissions will come largely from woodstoves/fireplaces, off-road applications, and industrial/commercial combustion. CARB. March 2017. Final Short-Lived Climate Pollutant Reduction Strategy. Available: https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final. However, State and national GHG inventories do not include black carbon due to ongoing work resolving the precise GWP of black carbon. Guidance for CEQA documents does not yet include black carbon.

molecule of CO_2 over a given period of time (20, 100, and 500 years). CO_2 has a GWP of 1. The GWP of GHG emissions are shown in **Table 3.7-3**. The GWP is used to convert GHGs to CO_2e to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under the IPCC Fifth Assessment Report (AR5) GWP values for CH_4, 10 MT of CH_4 would be equivalent to 280 MT of CO_2. The 2022 Statewide GHG emission inventory shows 2022 emissions at 371.1 MMT CO_2e, with that number further reduced in 2023 to 360.4 MMT CO_2e, which are reductions from peak emissions in 2004 of 494 MMT CO_2e.[64] In 2017 Redwood City emitted an estimated 494,944 MT CO_2e.[65]

Table 3.7-3 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]	Fifth Assessment Report Global Warming Potential Relative to CO_2[1]	Sixth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	1	1	1
Methane (CH_4)	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Sources: Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007. Available: https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf; IPCC. 2013. Fifth Assessment Report: Climate Change 2013. Available: https://www.ipcc.ch/report/ar5/wg1/; and IPCC. February 2022. Summary for Policymakers. Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability. Available: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

Notes:

The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting. Therefore, this analysis utilizes AR5 GWP values consistent with the current Scoping Plan.

[1] Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities.

[64] California Air Resources Board (CARB). 2025. Current California GHG Emission Inventory Data webpage. Available: https://ww2.arb.ca.gov/ghg-inventory-data#:~:text=Background,not%20included%20in%20the%20inventory. Accessed September 8, 2025.

[65] City of Redwood City. November 2020. Climate Action Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/22781/637426822669070000.

The recent IPCC AR6 summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO_2 have increased by 50 percent since the Industrial Revolution and continue to increase at a rate of two parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5° Celsius (C) warming.[66] These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.[67] In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, and other conditions. Human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime.[68]

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in the frequency of warm spells and heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

There is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low GHG emissions scenario.[69] Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1° Fahrenheit (F) higher than historical levels, and some areas have seen

[66] California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

[67] California Climate Action Team. March 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available: https://planning.lacity.gov/eir/8150Sunset/References/4.E.%20Greenhouse%20Gas%20Emissions/GHG.23_CalEPA%202006%20Report%20to%20Governor.pdf.

[68] Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007. Available: https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf.

[69] Intergovernmental Panel on Climate Change (IPCC). February 2022. Summary for Policymakers. Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability. Available: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

average increases in excess of 2°F.[70] The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual (BAU) scenario, in which no new actions are taken to curb GHG emissions:

- Annual average daily high temperatures in California are expected to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are Statewide averages. Heat waves are projected to become longer, more intense, and more frequent.
- Warming temperatures are expected to increase soil moisture loss and lead to drier seasonal conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter rainy season.
- High heat increases the risk of death from cardiovascular, respiratory, cerebrovascular, and other diseases.
- Droughts are likely to become more frequent and persistent through 2100.[71]
- Climate change is projected to increase the strength of the most intense precipitation and storm events affecting California.
- Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt. Mountain ranges in California are already seeing a reduction in the percentage of precipitation falling as snow. California's water storage system is designed with the expectation that snow will stay frozen for many months, and that as it melts, it will be stored in a series of reservoirs and dams, many of which are used to generate electricity. Changing waterfall patterns therefore impact both water supply and electricity supply.
- Marine layer clouds are projected to decrease, though more research is needed to better understand their sensitivity to climate change.
- Extreme wildfires (i.e., fires larger than 10,000 hectares or 24,710 acres) are expected to occur 50 percent more frequently. The maximum area burned Statewide may increase 178 percent by the end of the century. Drought and reduced water supplies can increase wildfire risk.
- Exposure to wildfire smoke is linked to increased incidence of respiratory illness.
- Sea-level rise is expected to continue to increase erosion of beaches, cliffs, and bluffs.[72]

Global climate change risks to California are shown in **Table 3.7-4**, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, ocean, and energy demand.

[70] California Office of Emergency Services (CalOES). June 2020. California Adaptation Planning Guide. Available: https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf.

[71] Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, and with unprecedented dry years in 2014 and 2015. Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015. California Office of Environmental Health Hazard Assessment (OEHHA). September 21, 2018. Overview: Changes in Climate. Available: https://oehha.ca.gov/epic/changes-climate/overview-changes-climate.

[72] California Office of Emergency Services (CalOES). June 2020. California Adaptation Planning Guide. Available: https://www.caloes.ca.gov/wp-content/uploads/Hazard-Mitigation/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf.

Table 3.7-4 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	▪ Heat waves will be more intense and frequent ▪ Fewer extremely cold nights ▪ Poor air quality made worse ▪ Higher temperatures increase ground-level ozone levels ▪ Deaths due to extreme heat
Water Resources Impacts	▪ Decreasing Sierra Nevada snowpack ▪ Challenges in securing adequate water supply ▪ Potential reduction in hydropower ▪ Loss of winter recreation
Agricultural Impacts	▪ Increasing temperature ▪ Increasing threats from pests and pathogens ▪ Expanded ranges of agricultural weeds ▪ Declining productivity ▪ Irregular blooms and harvests ▪ Unpredictable water availability
Coastal Sea Level Impacts	▪ Accelerated sea-level rise ▪ Increasing storm surge and severe storm events ▪ Shrinking beaches ▪ Worsened impacts on infrastructure
Forest and Biological Resource Impacts	▪ Increased risk and severity of wildfires ▪ Lengthening of the wildfire season ▪ Movement of forest areas ▪ Conversion of forest to grassland ▪ Declining forest productivity ▪ Increasing threats from pests and pathogens ▪ Shifting vegetation and species distribution ▪ Altered timing of migration and mating habits ▪ Loss of sensitive or slow-moving species
Ocean Impacts	▪ Ocean acidification, hypoxia (depleted oxygen), and warming
Energy Demand Impacts	▪ Potential reduction in hydropower ▪ Increased energy demand

Sources: California Climate Change Center (CCCC). 2006. Our Changing Climate: Assessing the Risks to California. CEC-500-2006-077. Available: https://www.ucs.org/sites/default/files/2019-09/our-changing-climate-final.pdf;
California Energy Commission (CEC). May 2009. The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California. CEC-500-2008-0077. Available: http://www.susannemoser.com/documents/CEC-500-2008-071_Moseretal_FutureisNow.pdf;
California Climate Change Center (CCCC). July 2012. Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. Available: https://ucanr.edu/sites/Jackson_Lab/files/155618.pdf;
California Natural Resources Agency (CNRA). January 2018. Safeguarding California Plan: 2018 Update. Available: https://www.slc.ca.gov/sea-level-rise/safeguarding-california-plan-2018-update/; and California Office of Emergency Services (CalOES). June 2020. California Adaptation Planning Guide. Available: https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf.

3.7.5 Thresholds of Significance

The proposed project would result in significant impacts associated with GHG emissions if it would:

Impact 3.7-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact 3.7-2 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Bay Area Air Quality Management District 2022 CEQA Air Quality Guidelines

The Air District's CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans (2022) contains guidance on how to evaluate, measure, and mitigate GHG impacts generated from land use development projects.[73] In April 2023, the Air District adopted the 2022 CEQA Air Quality Guidelines (Guidelines), which contains guidance for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities.[74] The Air District identified that projects would have a less than significant impact on GHGs if it contributes its "fair share" of implementing California's climate goal of carbon neutrality by 2045. A project contributes its fair share if it is consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b).

If no such strategy is applicable to a proposed project, cumulative GHG emissions impacts are based on incorporation of specific project design elements. Under this analysis, land use development "[p]rojects must include, at a minimum, the following project design elements:

1. Buildings

    a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

    b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation

    a. The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory: Evaluating Transportation Impacts in CEQA*:

[73] Bay Area Air Quality Management District. April 2022. California Environmental Quality Act Air Quality Guidelines Appendix B: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-b-thresholds-for-evaluating-significance-of-climate-impacts_final-pdf.pdf?rev=10305f45037b41dba2cd1b45b288d54b&sc_lang=en.

[74] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

i. Residential projects: 15 percent below the existing VMT per capita

ii. Office projects: 15 percent below the existing VMT per employee

iii. Retail projects: no net increase in existing VMT

b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2."

Redwood City Climate Action Plan

Adopted in November 2020, the City of Redwood City's CAP is a comprehensive strategy to reduce GHG emissions through aggressive policies and adoption of clean technologies.[75] CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, allows for lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level. Pursuant to CEQA Guidelines Section 15183.5, later project specific environmental documents may tier from and/or incorporate by reference the GHG reduction plan so long as it includes the following plan elements:

- *Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area*. The City's CAP includes communitywide GHG emissions for existing conditions and emissions forecast for year 2030 and year 2045 for emissions sources within the City.
- *Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable*. The City's CAP exceeds the State's ambitious requirements, and would commit the City to a 50 percent reduction in emissions below 2005 levels by 2030 (aligned with SB 32) and achieve carbon neutrality well before 2045 (aligned with AB 1279).
- *Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area.* The City's CAP identifies the business-as-usual forecast for emission sources within the City limits and identifies the additional reductions needed to achieve the gap.
- *Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level*. The City's CAP identifies specific measures and quantifies individual measures that would achieve the gap to achieve the City's local GHG reduction goals.
- *Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels*. The City commits to monitor and review the CAP implementation to ensure that actions are implemented as planned. Every year, the Environmental Initiatives Coordinator will provide annual updates to the City Council and community on the progress made implementing the CAP actions. Every five years, the City will conduct a municipal GHG generation-based inventory to track progress on reducing the City's emissions.

[75] City of Redwood City. November 2020. Climate Action Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/22781/637426822669070000.

- *Be adopted in a public process following environmental review*. The CAP was prepared and adopted by Redwood City's City Council and implements the adopted Redwood City General Plan by addressing ways to reduce GHG emissions and climate change in 2020 (State Clearinghouse Number [SCH] No. 2010052034).

As described above, the significance thresholds that the Air District recommends for use in analyzing GHG impacts are based on achieving the Statewide GHG reduction goals, specifically carbon neutrality by 2045 (Impact 3.7-1), and consistency with policies or plans adopted to reduce GHG emissions (Impact 3.7-2). Further, because no single project is large enough to result in a measurable increase in global concentration of GHG emissions, climate change impacts of a project are considered on a cumulative basis.

While the City's CAP is a qualified GHG reduction strategy that can be used to streamline the analysis of GHG impacts from development projects in the City, it accounts for emission inventories, forecasts, and reduction strategies that are limited to development projects that are subject to the City's discretionary approval. A general consistency analysis with the CAP is provided for informational purposes but is not relied on for a streamlined analysis of GHG impacts pursuant to CEQA Guidelines Section 15183.5.

Approach 2: Net Zero Threshold:

Appendix D of the CARB 2022 Scoping Plan recognizes that achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, may be an appropriate approach to analyzing project-level alignment with State climate goals.[76] Therefore, the no-net-increase threshold is consistent with the State's carbon neutrality goals under AB 1279 and provides the most conservative quantitative threshold for GHG emissions impacts under CEQA for the proposed project.

The Air District's 2022 CEQA Air Quality Guidelines identify that an appropriate GHG reduction strategy may be used for determining whether a project could result in a potentially significant impact related to GHG emissions.

To provide a conservative analysis of the proposed project's long-term impacts in relation to carbon neutrality goals of AB 1279, the Port has chosen to utilize a "no net increase" threshold of zero for determining whether the proposed project could generate GHG emissions that would have a significant impact on the environment under Impact 3.7-1. In determining whether the project will result in an increase in GHG emissions, the project assumes compliance with existing regulations, and the ability of the project to offset existing regional emissions sources. A project does not generate enough GHG emissions on its own to influence global climate change; therefore, this analysis measures the proposed project's contribution to the cumulative environmental impact associated with GHG emissions.

Under the consistency analysis under Impact 3.7-2, a given project need not be in perfect conformity with each and every planning policy or goal to be consistent. A project would be consistent with applicable plans, policies, and regulations if it would further their objectives and not obstruct their attainment.

[76] California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

3.7.6 Project Impacts

3.7.6.1 Impact 3.7-1

Impact 3.7-1: Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

3.7.6.1.1 Construction

Construction would generate GHG emissions from the construction activities needed to construct a ferry float, a gangway to a pile-supported access pier, a parking lot with transit stops, roadway improvements, bicycle and pedestrian network connections, secure bicycle parking, and utilities serving the ferry terminal site, as well as relocation of a portion of the railroad tracks and the existing maintenance building. Construction of the visitor-serving uses would entail construction of a full-service hotel with a footprint of up to approximately 60,000 square feet with up to three stories and a maximum of 180,000 square feet of building area, up to 20,000 square foot restaurant, and up to 10,000 square feet of office space that are assumed to be single-story buildings. The interim portable restroom facility at the ferry terminal would be replaced by a permanent facility when a sewer line is established at the project site for future visitor-serving uses. Additional parking on-site would also be provided to accommodate the visitor-serving uses.

Construction of the proposed improvements would generate a short-term increase in GHG emissions. Construction-related emissions generated during construction of the proposed project and associated improvements were quantified with CalEEMod Version 2022.1 and CARB's OFFROAD database for waterborne equipment use and are shown in **Table 3.7-5**.

Table 3.7-5 Proposed Project Construction-Related GHG Emissions

Construction Year	MT CO_2e
Year 1	257
Year 2	1,633
Year 3	457
Year 4	357
Total	**2,704**

Source: Appendix B of this Draft EIR.
Key: MT CO_2e = metric tons of carbon dioxide-equivalent

As shown in **Table 3.7-5**, construction of the proposed project would generate GHG emissions through direct and indirect emissions from the construction activities, which would generate a short-term increase in GHG emissions. Accordingly, construction of the proposed project would be a short-term emission generating activity. To account for GHG emissions from construction of the proposed project, construction GHG emissions were amortized over an expected lifetime of 30 years[77, 78] and included in the operational emission estimates in **Table 3.7-6**.

[77] Amortized construction emissions assume a 30-year lifetime for the project as most buildings begin needing renovations and improvements after approximately 30 years. Should the lifetime of the project extend beyond 30 years before substantive renovations are necessary, the amortized construction emissions would be lower than those shown in **Table 3.7-6.**

[78] International Energy Agency. March 2008. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings. IEA Information Paper. Available: https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building_Codes.pdf.

3.7.6.1.2 Operations

As discussed in **Section 3.7.5**, pursuant to the recommendations provided in Appendix D of the 2022 Scoping Plan, the Port has chosen to utilize a "no net increase" threshold of zero (0 MT CO_2e) for determining whether the proposed project could generate GHG emissions that would have a significant impact on the environment. Operation of the ferry terminal would result in the operation of a ferry transit service utilizing renewable diesel-fired 320-passenger Dorado Class vessels that would benefit overall air quality and reduce GHG emissions by providing commuters in the Bay Area alternative means of transportation other than on-road vehicle use, often times single-occupancy. As discussed in Section 3.14, Transportation, the proposed ferry service, upon initial operation would result in a net decrease of VMT across the Bay Area region by 11,945,200 miles per year. Because the ferry terminal would provide alternative modes of transportation for Bay Area commuters, the net GHG emissions quantified and shown in **Table 3.7-6** account for the transportation mode switch that would take place by commuters choosing to use the ferry instead of their personally owned vehicles. It should be noted that **Table 3.7-6** shows operational GHG emissions at full operation assumed for the proposed project (ferry terminal and visitor-serving uses)[79] which represents a conservative assessment of emission estimates, as vehicle and equipment fuel efficiency standards would improve in future years. As shown in **Table 3.7-6,** implementation of the proposed project would achieve a net reduction in GHG emissions, and therefore would not exceed the net-zero threshold. For these reasons, the impact would be less than significant.

Table 3.7-6 Proposed Project Operation-Related GHG Emissions

GHG Emission Source	MT CO_2e/Year
Amortized Construction Emissions	90
On-Road Vehicles	(16,046)
Ferry Service	10,974
Area Sources	3
Energy Sources	468
Water Consumption/Wastewater Generation	14
Waste Generation	80
Refrigerants	52
Net GHG Emissions	(4,365)
Exceed Net Zero Threshold?	No

Source: Appendix B of this Draft EIR.
Notes:
Emissions may not total due to rounding.
Estimates in parentheses represent negative numbers.
Amortized construction GHG emissions reflect total construction emissions (2,704 MT CO_2e) from **Table 3.7-5** divided by 30 years.
Key: MT CO_2e = metric tons of carbon dioxide-equivalent

3.7.6.1.3 Mitigation Measures

No mitigation is required for construction and operations combined.

[79] Overall, the proposed project would result in a VMT reduction of 712,800 miles per year across the Bay Area Region (-11,945,200 miles per year for the ferry terminal and 11,232,400 miles per year for the visitor-serving uses.)

3.7.6.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations combined.

3.7.6.2 Impact 3.7-2

Impact 3.7-2: Would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In addition to a consistency analysis with the City's CAP, the following analysis discusses consistency of construction and operation of the proposed project with other applicable plans adopted for the purpose of reducing GHG emissions, which include CARB's 2022 Scoping Plan, MTC/ABAG's Plan Bay Area 2050+, and the Air District's 2017 Clean Air Plan.

Redwood City Climate Action Plan

As discussed in **Section 3.7.3.1.4**, the City's CAP GHG reduction goal is to reduce carbon emissions 50 percent below 2005 levels by 2030, an interim step toward the ultimate goal of achieving the Statewide target of carbon neutrality well before 2045. The CAP outlines specific measures to reduce GHG emissions from four strategies: energy and water, transportation and land use, solid waste, and food and consumption.

The proposed project would be required to comply with the latest CBSC, CALGreen, and Redwood City Municipal Code requirements, which would minimize long-term GHG emissions. This includes the City's Green Building Ordinance, Article XV, which incorporates building standards that exceed State Title 24 building construction standards and Energy Star conservation standards into future public and private development.

During construction, construction equipment would be well-maintained and meet the appropriate tier ratings per CALGreen or USEPA emissions standards. Construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of the CCR, Title 13, Article 4.8, Chapter 9. Compliance with these regulations would minimize construction-related GHG emissions.

WETA's ferry fleet uses renewable diesel fuel. Newer vessels are compliant with USEPA Tier 4 emission standards which require the cleanest combustion engines and are equipped with diesel particulate filters, and older vessels are being upgraded under WETA's Commercial Harbor Craft Alternative Control of Emissions Plan[80] to achieve Tier 4 standards with diesel particulate filters where feasible. To comply with CARB requirements, WETA is preparing for a phased transition of its ferry fleet from diesel operated ferries to zero emission vessels.[81] Once the existing vessels that would operate on the Redwood City routes reach the end of their useful life (approximately 25 years), the current vessels in the San Francisco Bay Ferry fleet would be replaced with ZEVs at or within this 25-year timeframe. Additionally, the dimensions of the float would include space to accommodate future vessel charging infrastructure and an on-site battery

[80] WETA, November 8, 2024. Commercial Harbor Craft Alternative Control of Emissions Plan. Available: https://ww2.arb.ca.gov/our-work/programs/commercial-harbor-craft/chc-alternative-control-emissions-ace-plan.

[81] WETA. January 2023. Blueprint for Zero Emission Vessel Transition. Available: https://sanfranciscobayferry.com/wetas-transition-to-zero-emission-ferries/.

energy storage system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. However, because there is no feasible ZEV technology currently available for ferries to serve the proposed Redwood City routes, the use of diesel ferries is assumed for ferry operations over the life of the project to present a conservative evaluation. Because the technology that may be used to replace the existing vessels is not, and cannot, be known at this time, no specific technology is identified.

In terms of vehicle transportation, a portion of vehicles used by future employees and visitors would be EVs or would be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels. Furthermore, the ferry service would be a commute-period service, providing three to four trips during both AM and PM peak periods on weekdays. Therefore, passengers using the ferry vessels for transportation would reduce the number of people who would typically commute to different areas outside of Redwood City on a daily basis.

Compliance with these regulations would help minimize operation-related GHG emissions. Therefore, operation of the ferry terminal would be aligned with the State's carbon neutrality goals and GHG emission reduction targets established by the City's CAP. The proposed project would not conflict with the City's CAP and the impact would be less than significant.

2022 Climate Change Scoping Plan

CARB's latest Climate Change Scoping Plan (2022)[82] outlines the State's strategies to reduce GHG emissions in accordance with the targets established under AB 32, SB 32, and AB 1279. The Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The proposed project would, in part, involve implementation of applicable Statewide GHG emission reduction strategies. Statewide strategies to reduce GHG emissions include the LCFS, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the CAFE standards, and other early action measures as necessary to ensure the State is on target to achieve the GHG emissions reduction goals of AB 32, SB 32, and AB 1279. Additionally, construction of the proposed project would be required to comply with the most current Building Energy Efficiency Standards and CALGreen. The proposed project would comply with these GHG emissions reduction measures since they are statutorily incorporated via building codes and product manufacturer requirements. Visitor-serving uses would also be required to comply with solar mandates and energy storage requirements included in the California Energy Code, as discussed above in the regulatory setting under CCR, Title 24, Part 6. In addition, operation of the ferry service would provide residents and employees in Redwood City an alternative mode of transportation for trans-bay commuting and provide a more efficient option for transportation in the region on a per capita basis. Therefore, the proposed project would not conflict with the 2022 Climate Change Scoping Plan and the impact would be less than significant.

[82] California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

Plan Bay Area 2050+

Plan Bay Area 2050+, the Bay Area's Regional Transportation Plan/Sustainable Community Strategy identifies the sustainable vision for the Bay Area. To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area 2050+ land use concept plan for the region concentrates the majority of new population and employment growth in the region in Growth Geographies. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, vehicle miles traveled, and associated GHG emissions reductions.

While the project site is not located within a PDA, PPA, TRA, or HRA,[83] the ferry terminal would support the objectives of WETA's 2016 Strategic Plan and the Port's 2020 Vision Plan for the regional ferry system to address a growing need for a new Bay Area transportation option at the Port of Redwood City. While a number of temporary construction-related jobs, vehicle trips, and jobs associated with the visitor-serving uses would be created from implementation of the proposed project, new employment demand from operation and construction would be met within the existing and future labor market in the City and the region.[84]

The new ferry service would provide an alternative mode of transportation for transit-dependent communities by providing a ferry terminal service and bicycle storage, which aids in a decrease in commuter VMT and GHG emissions. Due to State and federal vehicle fuel efficiency standards, the average fuel efficiency for vehicles used by employees or visitors to the ferry terminal and future visitor-serving uses is anticipated to improve with each year as older and less fuel-efficient vehicles are retired and replaced with newer, more fuel-efficient vehicles or vehicles powered by alternative fuel sources (e.g., electricity, hydrogen). As a result, GHG emissions from more fuel-efficient vehicles would improve and reduce over time. Furthermore, the ferry vessel GHG emissions would be reduced in the future as the current vessels in the San Francisco Bay Ferry fleet would be replaced with zero emission vessels at or within a 25-year timeframe.

Overall, the proposed project would help decrease traffic congestion, promote alternative modes of transportation. Therefore, the proposed project would not conflict with the land use concept plan for the City identified in the Plan Bay Area 2050+; the impact would be less than significant.

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[83] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[84] The U.S. Census estimates the City population was 80,512 in 2022 and the San Mateo County population was 726,353. Commuting occurs regularly in the region; the City's Housing Element identifies that in 2018, Redwood City had 40,418 workers living within the City borders and an estimated 69,400 jobs. The California Employment Development Department predicts that construction jobs within San Francisco and San Mateo counties will grow by 5.8 percent between 2022-2032 and leisure and hospitality jobs will grow by 26.6 percent between 2022-2032. Due to the growing nature of these fields, it can be assumed that there would be a sufficient existing labor market in the City and the region as a whole to fill the jobs. Sources: City of Redwood City. 2023 – 2031 Housing Element. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/26396/638137962943070000; and California Employment Development Department. 2022-2032 Industry Employment Projections, San Francisco-Redwood City-South San Francisco Metropolitan Division (San Francisco and San Mateo Counties). Available: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Flabormarketinfo.edd.ca.gov%2Ffile%2Findproj%2Fsanf%24IndProj.xlsx&wdOrigin=BROWSELINK.

2017 Clean Air Plan

The Air District's 2017 Clean Air Plan contains strategies for reducing GHG emissions by encouraging energy efficiency, active transportation infrastructure, clean energy technologies, and recycling. Unlike Plan Bay Area 2050+, which emphasizes the location of development in specific areas of high density or high quality transit infrastructure, the 2017 Clean Air Plan focuses on the quality and operational characteristics of individual development in reducing resource waste and improving energy efficiency.

As described in Impact 3.2-1 in Section 3.2, Air Quality, the San Francisco Bay Ferry would require eight crews with a minimum of four people per crew per weekday to operate each route and the weekend San Francisco route would require four crews, working ten-hour shifts. Since operation of the ferry terminal is expected to occur in staffing across WETA's service area, no population relocation is expected.

In addition, operation of visitor-serving uses would result in up to approximately 400 new employment opportunities associated with the hotel and related facilities, restaurant, and the limited office uses. Given that the project area is in a well-established urban community with a large housing base and housing stock, new employment demand from project construction and operation would be met within the existing and future labor market in the City and the region as described previously. Consequently, the operation of the visitor-serving uses would not substantially increase the demand for new housing, employment, or local population growth beyond what is accounted for in the 2017 Clean Air Plan.

Furthermore, operation of the ferry terminal would provide residents and employees in Redwood City an alternative mode of transportation for trans-bay commuting and provide a more GHG emissions-efficient option for transportation in the region on a per capita basis. As shown under Impact 3.7-1, operation of the proposed project would result in a net decrease in GHG emissions as a result of providing an alternative mode of transportation for on-road commuters in the Bay Area. Therefore, operation of the proposed project would not conflict with or obstruct implementation of the 2017 Clean Air Plan, and the impact would be less than significant.

3.7.6.2.1 Mitigation Measures

No mitigation is required for construction and operations combined.

3.7.6.2.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations combined.

3.7.6.3 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The Air District considers GHG impacts to be exclusively cumulative impacts, in that no single project could, by itself, result in a substantial change in climate.[85] Therefore, project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Consequently, impacts analyzed in Impacts 3.7-1 and 3.7-2 are not project-specific impacts to global warming, but the proposed project's contribution to a cumulative impact.

The analysis in Impact 3.7-1 uses the 2022 Scoping Plan's recommended net zero GHG emissions threshold as a quantitative significance threshold for determining whether the proposed project is consistent with the State's long-term carbon neutrality and GHG emission reduction goals or may result in potentially significant impacts. Consideration of a project's climate change impact, therefore, is an analysis of a project's contribution to a cumulatively significant global impact through its emission of GHGs. As described under Impact 3.7-1 and Impact 3.7-2, construction and operation of the proposed project would not, coupled with forecasted regional growth, result in a significant impact related to GHG emissions. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.7.6.3.1 Mitigation Measures

No mitigation is required.

3.7.6.3.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to GHG emissions would be less than significant.

3.7.7 Significant Unavoidable Impacts

There would be no significant and unavoidable GHG emissions impacts associated with construction and operation of the proposed project.

[85] Bay Area Air Quality Management District. 2023. California Environmental Quality Act Air Quality Guidelines. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

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Section 3.8
Hazards and Hazardous Materials

3.8.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to hazards and hazardous materials, and the potential impacts from implementation of the proposed project.

This section analyzes the proposed project's construction and operation impacts associated with hazards and hazardous materials, including the potential for the project to create a hazard to the public or environment through the transport, use, or disposal of hazardous materials or the potential for accidental release of hazardous materials into the environment; to create a significant hazard to the public or the environment due to being near sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; and to result in a safety hazard or excessive noise due to being located within an airport land use plan. This section describes the general approach and methodology, regulatory setting, environmental setting, and the thresholds of significance used to evaluate the proposed project's effects related to hazards and hazardous materials.

As discussed in the Initial Study, provided in Appendix A, Notice of Preparation/Initial Study (NOP/IS), of this Draft EIR, the proposed project would not cause substantial adverse effects involving hazardous materials or emissions within 0.25-mile of a school, or exposing people or structures to risks involving wildland fires. Consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 15128, this analysis is available for review in Appendix A, and it is also summarized in Chapter 5, Other CEQA Considerations. Accordingly, analysis of these thresholds is not repeated here. Analysis of impacts to adopted emergency response plans or emergency evaluation plans is addressed in Section 3.14, Transportation, of this Draft EIR. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.8.2 Methodology

The proposed project's impacts relative to hazards and hazardous materials were analyzed and evaluated with respect to appropriate significance criteria. This section includes an overview of the regulatory context by which hazardous substances are managed; describes what is known about hazardous materials in the project area; and evaluates whether the proposed project could result in significant environmental impacts in connection with these materials. This analysis assumes that the proposed project would be constructed in compliance with federal, State, and local requirements (as detailed in **Section 3.8.3** below).

The California Department of Toxic Substances Control (DTSC) EnviroStor and the California State Water Resources Control Board (SWRCB) GeoTracker databases were reviewed to determine the likelihood of encountering soil or groundwater contamination from past activities at or near the project site during construction activities, including grading, excavation, pile driving, and dredging. Based on the results of the review of the EnviroStor and GeoTracker databases, the resulting potential to create a significant hazard to the public or the environment was evaluated.

EnviroStor is DTSC's online data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues. The EnviroStor database includes the following site types: those listed on the National Priorities List (NPL) (federal Superfund sites); State Superfund and military facilities; voluntary cleanup; and school sites. SWRCB's GeoTracker database includes geographic information and data on underground fuel tanks, fuel pipelines, and public drinking water supplies, and contains information regarding leaking underground fuel tanks. This database also includes information and data on non-leaking underground fuel tank cleanup programs, including Spills-Leaks-Investigations, Cleanup Program Sites, U.S. Department of Defense Sites, and Land Disposal programs.

The following documentation was also reviewed and evaluated for additional information on the environmental setting and evaluation of potential for the proposed project to create a hazard to the public or the environment:

- Geotechnical Desktop Study for the Port of Redwood City Ferry Terminal Project, prepared by COWI in 2024 (Appendix E of this Draft EIR);
- Redwood City General Plan Public Safety Element and Municipal Code;
- Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City, prepared by Haley & Aldrich for the Port of Redwood City in 2024;[1]
- Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park, Port of Redwood City, California prepared by Science Applications International Corporation in November 2001 (project site);[2] and
- Final Environmental Impact Report for the Pacific Shores Center Project prepared by RECON Environmental Corp in March 1995[3] (includes the project site, Seaport Boulevard corridor, waterfront park and western public parking lot).

For the purposes of this assessment, hazardous materials include hazardous materials, hazardous wastes, hazardous substances, and environmental contamination of soil, surface waters, and groundwater. Other hazards evaluated include those related to the safety of nearby residents and workers relative to the potential release of hazardous materials due to construction or operation of the proposed project. Impacts related to the release of fuel from vessels during in-water construction and operation are also discussed in Section 3.9, Hydrology and Water Quality, of this Draft EIR.

[1] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

[2] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

[3] City of Redwood City. March 1995. Final Environmental Impact Report for the Pacific Shores Center Project. State Clearinghouse #93053065. Prepared by Recon Environmental Corp.

3.8.3 Existing Conditions

3.8.3.1 Regulatory Setting

3.8.3.1.1 Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices. The agency protects workers and the community (along with the California Division of Occupational Safety and Health [Cal/OSHA], see below), and integrates the federal Clean Water Act and Clean Air Act into California legislation.

U.S. Coast Guard

The U.S. Coast Guard (USCG) maintains capability to contain and clean up polluting substances in coastal zones through the National Strike Force, provides Federal On-Scene Coordinators for incidents in coastal zones, and can access federal funding for abating and mitigating releases. In accordance with the Region IX Area Contingency Plan,[4] which is the federal plan for an oil spill response, the USCG responds to marine oil spills through Unified Command with the Office of Spill Prevention and Response and the party responsible for the spill. If an oil spill occurs on marine waters, the USCG leads the containment and cleanup response operation by providing the designated Federal On-Scene Coordinator. The Federal On-Scene Coordinator is part of a Unified Command and coordinates the resources of other federal agencies as they are needed.

Clean Water Act

The Clean Water Act (CWA) of 1972 (33 U.S.C. Section 1251 et seq.) regulates discharge of pollutants into waters of the United States (WOTUS). Under the CWA, the USEPA has implemented programs for pollution control including water quality criteria recommendations for certain pollutants in surface waters. The CWA makes it unlawful for any pollutant discharge from a point source into navigable waters without a permit issued under the National Pollutant Discharge Elimination System (NPDES) Program.[5] Section 311 of the CWA is discussed below. Additional information on CWA programs and requirements is provided in Section 3.9, Hydrology and Water Quality, of this Draft EIR.

Section 311 Hazardous Substances Spill Prevention

Section 311 of the CWA addresses discharge of oil and other hazardous substances into navigable waters. It provides for spill prevention requirements, spill reporting obligations, and spill response planning. Section 311 regulates the prevention and response to accidental releases of oil and hazardous substances into navigable waters, on adjoining shorelines, or affecting natural resources belonging to or managed by the United States. The USCG is responsible for regulations and enforcement related to vessels and marine transportation, and the USEPA is responsible for non-transportation-related facilities and onshore operations.

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[4] U.S. Coast Guard. 2019. Region IX Mainland (Arizona, California, & Nevada) Regional Contingency Plan for Oil Spills & Hazardous Materials Releases. Version 2019.3 – Final – Updated – Signed. Available: https://www.nrt.org/sites/114/files/RCP%202019.3%20update%202021-11-08.pdf.

[5] U.S. Environmental Protection Agency. No Date. Summary of the Clean Water Act webpage. Available: https://www.epa.gov/laws-regulations/summary-clean-water-act. Accessed April 28, 2025.

Comprehensive Environmental Response, Compensation and Liability Act

Enacted in 1980 and amended in 1986, the Comprehensive Environmental Response, Compensation and Liability Act's (CERCLA), or the "Superfund Act," regulates cleanup of inactive hazardous waste sites and allocates liability for cleanup costs on arrangers and transporters of hazardous substances and on current and former owners of facilities where hazardous substances were disposed. CERCLA gives the President authority to clean up these sites under "removal" or "remedial" provisions.[6] The USEPA maintains the NPL, a list of national priority sites of known or threatened releases of hazardous substances throughout the United States, or Superfund sites, that present public health and environmental risks associated with such releases. CERCLA authorities complement those of the Resource Conservation and Recovery Act (RCRA), discussed below, which primarily regulates ongoing hazardous waste handling and disposal.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (Title 49 Code of Federal Regulations [CFR] 171 Subchapter C and Title 13 California Code of Regulations [CCR]) regulates the transportation and disposal of hazardous waste. The U.S. Department of Transportation (DOT) administers the Act. The transportation of hazardous materials by vessel is strictly governed by Title 49 Subchapter C Part 176, with special requirements for ferry vessels in Subpart E and special requirements for barges under Subpart F. The Act stipulates the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the State agencies with primary responsibility for enforcing federal and State regulations related to transportation within California.

Resources Conservation and Recovery Act

RCRA regulates hazardous wastes with a 'cradle-to-grave' approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal, and waste generators are required to report use or transport of hazardous wastes to the USEPA. Hazardous waste generators range from small producers, such as dry cleaners and automobile repair facilities, to larger producers, such as hospitals and manufacturing operations.

Federal Emergency Planning and Community Right-To-Know Act

Also known as Title II of the Superfund Amendments and Reauthorization Act, the federal Emergency Planning and Community Right-To-Know Act (EPCRA) was enacted to inform communities and residents of chemical hazards in their area. This Act requires the USEPA maintain and publish a list of toxic chemical releases, known as the Toxic Release Inventory (TRI). Industrial uses that manufacture, process, or use significant amounts of chemicals are required to report types and amounts of chemicals that are released each year into the air, water, and land or transferred off-site.

Federal Occupational Safety and Health Administration

The federal Occupational Safety and Health Administration (OSHA), founded under the Occupational Safety and Health Act of 1970 (Title 8 CCR), establishes and enforces federal regulations related to health

[6] U.S. Environmental Protection Agency. 2025. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Federal Facilities webpage. Available: https://www.epa.gov/enforcement/comprehensive-environmental-response-compensation-and-liability-act-cercla-and-federal. Accessed September 27, 2025.

and safety of workers, including exposure to toxic and hazardous materials. OSHA is implemented by Cal/OSHA in the state of California. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations. For example, under Title 8 CCR Section 5194 (Hazard Communication Standard), construction workers must be informed about hazardous substances that may be encountered. A Site Health and Safety Plan must be prepared prior to commencing any work at a contaminated site or involving disturbance of building materials containing hazardous substances, to protect workers from exposure to potential hazards.

Dredged Material Management Office

The Dredged Material Management Office (DMMO) is a joint program of the San Francisco Bay Conservation and Development Commission (BCDC), San Francisco Bay Regional Water Quality Control Board (RWQCB), State Lands Commission (SLC), the San Francisco District U.S. Army Corps of Engineers (USACE), and USEPA. The DMMO cooperatively reviews permits for new navigational channel dredging, disposal of dredged material, and maintenance dredging under a separate permit from the DMMO agencies. The DMMO also cooperatively reviews and approves sampling and analysis plans (SAPs), reviews the resulting sampling and analysis reports (SARs), and approves sediment chemical classifications proposed in the SARs. The sediment classifications in turn determine the allowable dredged placement locations. The DMMO determines the suitability for placement of dredged material at a given location based on sediment testing results and program goals. See Section 3.9, Hydrology and Water Quality, of this Draft EIR for additional information.

3.8.3.1.2 State

California Occupational Safety and Health Administration

Cal/OSHA is responsible for promulgating and enforcing State health and safety standards and implementing federal OSHA regulations. Cal/OSHA's regulatory scope includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) implements and enforces a Statewide hazardous materials program known as the Certified Unified Program Agency (CUPA), established by Senate Bill 1802, to enable counties and local governments to enforce the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) program was implemented on January 1, 1997, and aims to prevent accidental releases of substances that can cause serious harm to the public and the environment, and to minimize the damage if releases do occur. CalARP requires certain facilities (referred to as "stationary sources") which handle, manufacture, use, or store any regulated substances above threshold quantities to take actions to proactively prevent and prepare for accidental releases. Facilities subject to CalARP requirements must submit a Risk Management Plan (RMP).

The Lempert Keene-Seastrand Oil Spill Prevention and Response Act

The Lempert Keene-Seastrand Oil Spill Prevention and Response Act (California Government Code Section 8670) requires that any discharge of oil into waters of the State shall immediately contain, clean up, and remove the oil in accordance with applicable contingency plans. The party responsible for the discharge must report the spill immediately to the CalEPA/Office of Emergency Services (CalEPA/OES). All responsible parties and State and local agencies are required to carry out response and clean-up operations.

California State Oil Spill Contingency Plan

The California State Oil Spill Contingency Plan[7] is an independent document regarding the State's response to discharges of oil to all marine or inland surface waterways of California, and for oil spills to land. All State and local agencies must carry out spill response activities consistent with this Plan and other applicable federal, State, or local spill response plans.

California Public Utilities Commission General Order 167

California Public Utilities Commission (CPUC) General Order 167[8] establishes standards for electric generating facilities to ensure that they are maintained and operated to ensure safe and reliable service. In March of 2025, the Public Utilities Commission modified General Order 167 to establish new standards for the safety of battery energy storage facilities through the establishment of new standards for the maintenance and operation of such facilities and increased oversight in emergency response planning. General Order 167 applies to all battery storage systems in California.

CalEPA/Office of Emergency Services

The CalEPA/OES establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil. CalEPA/OES coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

[7] California Department of Fish and Wildlife Office of Spill Prevention and Response. January 2023. California State Oil Spill Contingency Plan. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=172767&inline.

[8] California Public Utilities Commission, Safety and Enforcement Division, Electric Safety and Reliability Branch. March 13, 2025. Resolution ESRB-13 - Adopts General Order (GO) 167-C, Enforcement of Maintenance and Operation Standards for Electric Generating Facilities and Energy Storage Systems. Available: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M558/K715/558715484.pdf.

CALFIRE, Office of the State Fire Marshal

The CALFIRE, Office of the State Fire Marshal (CALFIRE-OSFM) evaluates and provides technical assistance for the Hazardous Materials Management Plan (HMMP), the Hazardous Materials Inventory Statement (HMIS) and the Aboveground Petroleum Storage Act (APSA) Programs. The HMMP and HMIS Program are closely tied to the Business Plan Program.

California Hazardous Waste Control Law

The California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5, Article 2) is administered by CalEPA to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until the USEPA approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the State and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills. Title 22 CCR Section 66261.10 provides that waste has "hazardous" characteristics if it has the following effects:

> [a](1) a waste that exhibits the characteristics may: (A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of, or otherwise managed.

According to Title 22 CCR (Article 11, Chapter 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, contaminated, or are being stored prior to proper disposal. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric [battery] acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which reacts violently with water) may cause explosions or generate gases or fumes.

California Department of Toxic Substances Control

The DTSC, which is a department of CalEPA, is authorized to carry out the federal RCRA hazardous waste program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California, primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5)

and the Hazardous Waste Control Regulations (Title 22, CCR, Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. EnviroStor is DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further.

Underground Tank Regulations

Title 23, Division 3, Chapter 16 (Underground Tank Regulations) of the CCR identifies the regulations applicable to new and existing underground storage tanks. These regulations establish monitoring, maintenance, reporting, abatement, and closure procedures for all underground storage tanks in the State. These regulations are administered by the San Francisco Bay RWQCB.

Cortese List

California Government Code Section 65962.5 established the "Cortese List," which requires State agencies to compile a list of all properties affected by hazardous waste and develop a framework for how they will continue to be monitored and addressed by the State. A site's presence on the list has bearing on the local permitting process as well as on compliance with CEQA (see **Section 3.8.5.3** below).

Porter-Cologne Act

Division 7 of the California Water Code (Water Code) identifies the enforcement and implementation rights of the RWQCBs to remedy discharges to surface waters or groundwater that would or could violate water quality standards. Standard remedies include issuance of Cease-and-Desist Orders and cleanup and abatement procedures. Federal CWA provisions are implemented under the Porter-Cologne Act where states have authority, including the NPDES program. This includes the Construction Stormwater General Permit Order Number 2022-0057-DWQ (Construction General Permit)[9] which is a Statewide general permit that regulates stormwater discharges from construction activities involving disturbance of one acre or more of land. Permittees are required to submit a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) that describe measures to protect water quality during construction including: (1) best management practices (BMPs) for erosion and sediment control, and pollutant controls; (2) spill prevention and control systems; (3) storage of hazardous materials; (4) sanitary waste management; and (5) monitoring and reporting activities for compliance.

California Code of Regulations Title 22

Title 22 of the CCR contains all applicable State and federal laws governing hazardous wastes in the State. Title 22 is more stringent and broader in its coverage of wastes than federal law. Chapter 51 (Site Remediation) identifies the minimum standards of performance for site investigations and response actions performed by the private sector in site cleanup efforts.

[9] California State Water Resources Control Board. 2023. National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order WQ 2022-0057-DWQ NPDES NO. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_order.pdf.

Assembly Bill 2948

Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within each jurisdiction.

Hazardous Materials Release Response Plans and Inventory Law

Businesses in California that handle hazardous materials are required to comply with the Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act, also known as the Waters Bill) (Assembly Bill 2185; California Health and Safety Code, Chapter 6.6).

In 1986, the California Governor's Office of Emergency Services (OES) established the Hazardous Materials Business Plan (HMBP) Program, which prevents or minimizes damage to the public and the environment from a release of hazardous materials. Under the Program, California businesses that handle hazardous materials were required to submit an HMBP each year. In Redwood City, HMBPs are submitted to the San Mateo County Environmental Health Division (EHD), the designated CUPA. In general, an HMBP must be submitted if a business handles and/or stores a hazardous material equal to or greater than the minimum reportable quantities. These quantities are 55 gallons for liquids, 500 pounds for solids and 200 cubic feet (at standard temperature and pressure) for compressed gases.

The Hazardous Materials Release Response Plans and Inventory Law aims to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or reduce injury to health and the environment. This law is also designed to reduce the occurrence and severity of hazardous materials releases.

Emergency Services Act

Under the Emergency Services Act, the State of California developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's OES. The OES coordinates the responses of other agencies, including the CalEPA, CHP, RWQCBs, Air Quality Management Districts, and county disaster response offices.

Emergency Planning and Community Right-to-Know Act

The federal EPCRA program is administered in California by the Governor's OES, the State Emergency Response Commission (SERC), six Local Emergency Planning Committees, and 83 CUPAs. The California Emergency Response Commission (also known as the Chemical Emergency Planning and Response Commission) oversees implementation of EPCRA in California. San Mateo County is a member of the Local Emergency Planning Committee Region II (Coastal Region).

California Toxic Release Inventory Program Act

The California Toxic Release Inventory Program Act, citing the federal EPCRA, requires facilities to disclose to the State and Local Emergency Planning Committee the quantities and types of toxic chemicals stored. To avoid multiple reports to various agencies, the California Health and Safety Code requires notification of chemical inventories to the Administering Agency, which is DTSC. Notification of chemical inventory is accomplished through completion of an HMBP and inventory.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) leads the State response to spills in marine waters through its Office of Spill Prevention and Response. The Office of Spill Prevention and Response coordinates the ongoing review of the federal Area Contingency Plan. It is in charge of oil spill prevention and preparedness responses; provides technical advice on cleanup methods to minimize damage to the environment; arranges for and oversees the care and rehabilitation of injured wildlife; and investigates criminal and civil liability and responsibility and impacts to natural resources. It collaborates with the USCG and other organizations during drills and spill responses, including BCDC in the event of oil spill incidents in the BCDC's jurisdiction. During a major incident, CDFW serves as part of a Unified Command and coordinates the resources of other State agencies as they are needed.

3.8.3.1.3 Regional

San Francisco Regional Water Quality Control Board

One of nine RWQCBs in California, the San Francisco Bay RWQCB: (1) protects surface and groundwater quality from toxic contamination and pollutants discharged or threatened to be discharged to the Waters of the State; (2) regulates public water systems; and (3) enforces the federal and State Safe Drinking Water acts through the Drinking Water Program. The RWQCB issues and enforces NPDES permits and regulates leaking underground storage tanks (LUSTs) and other sources of groundwater contamination.

San Francisco Bay Area Regional Emergency Coordination Plan

The Regional Emergency Coordination Plan (RECP) for the San Francisco Bay, developed by the Governor's OES and local government partners, provides a framework for collaboration and coordination during regional emergency events, such as earthquakes, fires, industrial accidents, and terrorist incidents. The RECP comprises a Base Plan and nine subsidiary plans that address detailed elements for specific disciplines and operational activities, including a Hazardous Materials Subsidiary Plan.[10] The RECP Hazardous Materials Subsidiary Plan provides a framework for coordination between the OES Regional Emergency Operations Center (REOC), the Fire and Rescue Mutual Aid Coordinators, the sixteen Operational Areas within OES Coastal Region, and the State Operations Center (SOC) Fire and Rescue Branch. The RECP Hazardous Materials Subsidiary Plan provides an overview of the roles and responsibilities of each of the agencies responsible for hazardous materials response and how hazardous materials response resources are managed during the response to a regional event.[11]

[10] Governor's Office of Emergency Services, Cities of Oakland, San Francisco, and San Jose Counties of Alameda, Contra Costa, Marin, Napa, San Mateo Santa Clara, Santa Cruz, Solano, and Sonoma, with support from Homeland Security. March 2008. RECP Hazardous Materials Subsidiary Plan. Available: https://media.api.sf.gov/documents/HazardousMaterialsAnnex_wVGKLCs.pdf.

[11] Governor's Office of Emergency Services, Cities of Oakland, San Francisco, and San Jose Counties of Alameda, Contra Costa, Marin, Napa, San Mateo Santa Clara, Santa Cruz, Solano, and Sonoma, with support from Homeland Security. March 2008. RECP Hazardous Materials Subsidiary Plan. Available: https://media.api.sf.gov/documents/HazardousMaterialsAnnex_wVGKLCs.pdf.

Bay Area Air Quality Management District

The Bay Area Air District (Air District)[12] regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to cause asbestos. The Air District must be notified at least 10 business days before every demolition regardless of asbestos content, and before any renovations removing 100 square feet (sq ft) or more, 100 linear feet or more, or 35 cubic feet or more of asbestos.[13]

3.8.3.1.4 Local

Airport Land Use Compatibility Plan

The project area is located within the Airport Influence Area (AIA) as identified in the Comprehensive Airport Land Use Compatibility Plan (ALUCP) for the Environs of the San Carlos Airport.[14] The ALUCP for San Carlos Airport, updated in 2015, is based on the 2010 Airport Layout Plan (ALP) for San Carlos Airport. Noise and safety are the two primary airport impact concerns that have the potential to affect the health, safety, and welfare of people within the vicinity of an airport. The related issues of overflight (noise) and airspace protection (safety) are also considered when preparing an ALUCP. The ALUCP addresses four primary land use compatibility concerns:

- Aircraft Noise – reduce the potential number of future residents in the airport environs exposed to excessive noise from aircraft and airport operations.
- Safety of Persons on the Ground – minimize the potential number of residents and workers exposed to hazards related to aircraft operations and accidents.
- Airspace Protection/Building Heights – protect the navigable airspace around the airport and ensure the safe and efficient operation of aircraft in flight.
- Aircraft Overflights – identify areas subjected to frequent aircraft overflights and/or low altitude overflights and require real estate disclosure notices.

City of Redwood City General Plan

The Redwood City General Plan Public Safety Element[15] contains the following goals, policies, and implementation programs regarding hazards and hazardous materials applicable to the proposed project:

- Goal PS-8a: Protect city residents, and businesses and employees from potential hazards associated with the use, storage, transport, and disposal of hazardous materials in and through Redwood City.
- Policy PS-8a.3: Work to ensure that land previously used as agriculture, commercial, and industrial is safe and contains no environmental hazards.

[12] The Bay Area Air District is a streamlined name change announced by the Bay Area Air Quality Management District (BAAQMD) in January 2025. Documents published by the Air District that are referenced in this Draft EIR are attributed to BAAQMD.

[13] Bay Area Air Quality Management District (BAAQMD). 2018. Asbestos Demolition and Renovation Notification/Job Number webpage. Available: https://www.baaqmd.gov/permits/asbestos. Accessed October 21, 2025.

[14] City/County Association of Governments of San Mateo County. October 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

[15] City of Redwood City. 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

- Policy PS-8a.4: Encourage the use of green building practices to reduce potentially hazardous materials in construction materials.
- Policy PS-10.1: Work to achieve consistency between General Plan land use and related policies and the San Carlos Airport Comprehensive Land Use Plan, as is appropriate for Redwood City. Measures may include restrictions on permitted land uses and development criteria, including height restrictions.
- Program PS-31: Hazardous Materials Buffer. Require a buffer zone between areas where significant quantities of hazardous materials are present and sensitive receptors, such as residences, hospitals and nursing/convalescent homes, hotels and lodging, schools, and day care centers.
- Program PS-48: Hazardous Material Releases from Prior Land Uses. Establish development standards for new development and redevelopment in areas previously used for commercial, agricultural, or industrial uses to identify and abate hazardous material releases from prior land uses that have the potential to affect future property owners or users. A Phase I Environmental Site Assessment should be required where appropriate and environmental testing and/or remediation may be required based on the findings of the Phase I.

CEMEX Lease Obligations

The project site is owned by the Port and is under a month-to-month lease to CEMEX, which used it for the stockpiling of materials for recycling and sale of concrete base rock. CEMEX is currently in the process of vacating the project site and, pursuant to lease terms, is removing landside improvements located on-site, including a storage building, equipment and machinery, and stockpiles. Pursuant to lease terms, CEMEX would also install a conveyance pipe and fill the stormwater ditch on the eastern edge of the site. The site would be cleared and graded to a height of approximately 10-feet North American Vertical Datum (NAVD)[16] prior to commencement of the proposed project. Per the lease agreement with CEMEX and addressed under a previous CEQA evaluation,[17] CEMEX is in the process of filling the ditch and installing a drainage pipe to convey stormwater to the outlet in Westpoint Slough. The stormwater ditch is approximately 25 feet in width.

3.8.3.2 Environmental Setting

The baseline for characterizing the existing hazards and hazardous materials setting is the conditions at the beginning of proposed project operation that consist of a cleared graded project site with a stormwater conveyance pipeline and filled stormwater ditch on the eastern edge of the site.

The project area is located at the confluence of Redwood Creek and Westpoint Slough in area that has been filled and used for Port-related uses. The project site is currently vacant and covered with hard packed dirt, loose gravel, and pockets of vegetation. The project site was diked and filled in the early 1920s and used as part of a cement production plant until at least 1965. This included processing of oyster shells dredged from the bay which were made into cement and exported from the site along with gypsum. The site has also been used for concrete rubble recycling, dredged sand storage, and most recently for

[16] NAVD is established for vertical control surveying in the U.S.

[17] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

stockpiles of concrete base rock. Structures previously located at that site include maintenance and storage buildings, equipment used in the stockpiling activities and equipment storage yard, and a metal tank that was used for sewage treatment prior to 2001. Past uses may have used hazardous materials, including petroleum hydrocarbons, volatile organics, semi-volatile organics, and metals. The cement plant contained a kiln in the 1950s and it is likely that a fuel storage tank was also present but later removed. Aboveground tanks used to store varying and potential hazardous materials were identified during a site visit in 1989;[18] in 2001, several crushed, unlabeled drums were found amongst other rubble in the northwest corner of the site.[19] A subsurface Phase II environmental site assessment conducted in 1990 included analysis for volatile organic compounds and select metals. Limited concentrations of petroleum hydrocarbons (22 to 35 parts per million) were detected in soil samples collected from two of the 16 borings.[20] The location of the borings was not identified. The project site is not listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) (see **Section 3.8.3.2.2**).

The proposed project site is owned by the Port of Redwood City and is leased to CEMEX, which used it for the stockpiling of materials for recycling and sale of concrete base rock. As noted above, CEMEX is vacating the site and removing landside improvements pursuant to lease terms. The shoreline is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. An abandoned concrete and metal dock, the Shell Unloading Wharf, extends parallel from the shore into Westpoint Slough at the northern edge of the site.

The project area contains other landside elements including paved roadways (the Seaport Boulevard loop road and driveway entrances to the Pacific Shores Center, Frontage Road, and a portion of the waterfront park parking lot), railroad tracks, decomposed granite trail segment, and landscaping along both sides of Seaport Boulevard and between the waterfront park and project site.

3.8.3.2.1 Dredged Sediment Sampling

The San Francisco Estuary Institute (SFEI) conducts the Regional Monitoring Program (RMP) that tracks contaminant distribution and trends throughout the Bay. Sediment chemical data are reviewed by the DMMO and compared to ambient and reference concentrations to determine the suitability of the dredged sediment for various types of placement sites.

As discussed further in Section 3.9, Hydrology and Water Quality, recent sediment testing was conducted in the vicinity of the ferry terminal site for another project and evaluated in 2024. The study performed by Haley & Aldrich, Inc. tested suitability for disposal of dredge material from Redwood Creek for deposit at beneficial reuse sites or in-Bay disposal and provides information to understand the existing sediment conditions near the ferry terminal site and provides data to inform the impact evaluation for the proposed project. The report, *Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-*

[18] City of Redwood City. 1995. Final Environmental Impact Report for the Pacific Shores Center Project. State Clearinghouse #93053065. Prepared by Recon Environmental Corp.

[19] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

[20] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

Use Basin - Port of Redwood City[21] describes the analytical results and sediment disposal or reuse suitability and makes the determination that contaminant concentrations in three samples areas near the project site are consistent with or below the ambient sediment concentrations within the San Francisco Bay and the sediment would be suitable for unconfined aquatic disposal or beneficial reuse.

3.8.3.2.2 Cleanup Sites

The EnviroStor and GeoTracker databases were reviewed to identify potential areas of groundwater and/or soil contamination within, or in the vicinity of, the project site and project areas. **Table 3.8-1** lists the cleanup sites within 0.25-mile of the project area.

Table 3.8-1 Listed Cleanup Sites within 0.25 mile of Project Area

Name	Address	Type	Status
Pacific Shores Development	1000 Seaport Boulevard Redwood City, CA 94063	LUST Cleanup Site	Case Closed as of 3/16/2001
RMC Pacific Materials	876 Seaport Boulevard Redwood City, CA 94063	Non-Case Information	Informational Item / Review Complete as of 10/26/2000
ARCO Bulk Plant #69209	775 Seaport Boulevard Redwood City, CA 94063	Cleanup Program Site	Open - Remediation
Sims Metal - Redwood City	699 Seaport Boulevard Redwood City, CA 94063	DTSC Site Type: Inspection	Significant Non-Complier
Sims Metal Management - Redwood City	699 Seaport Boulevard Redwood City, CA 94063	DTSC Site Type: Voluntary Cleanup	Active

Sources: GeoTracker, 2023 and 2025; EnviroStor, 2025.
Notes:
LUST Clean Up Site: Includes all underground storage tank (UST) sites that have had an unauthorized release (i.e. leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are being (or have been) cleaned up. Leaking Underground Storage Tank (LUST) sites can contaminate surrounding soil, groundwater, or surface waters, or affect indoor air spaces.[22]
Information Item: Review of site has been completed. Most or all relevant information about the site record has been stored in GeoTracker and there does not appear to be a need for a regulatory case at this time. No significant additional work is required.
Cleanup Program Site: Includes all "non-federally owned" sites that are regulated under the State Water Resources Control Board's Site Cleanup Program and/or similar programs. Cleanup Program sites are varied and include but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, RCRA/CERCLA cleanups, and some brownfields.
Inspection: A planned/scheduled periodic compliance review of a regulated entity.
Voluntary Cleanup: Identifies sites with either confirmed or unconfirmed releases, and the project proponents have requested that DTSC oversee evaluation, investigation, and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

[21] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.
[22] U.S. Environmental Protection Agency (USEPA). Leaking Underground Storage Tanks Corrective Action Resources webpage. Available: https://19january2021snapshot.epa.gov/ust/leaking-underground-storage-tanks-corrective-action-resources_.html. Accessed October 21, 2025.

The GeoTracker data management system[23] identifies three sites within 0.25-mile of the project area. The first is a closed LUST cleanup site located southeast of the project site at the Pacific Shores Center.[24] This site is in an area of impacted soils that was identified and remediated east of Seaport Boulevard and is now a parking lot for the Pacific Shores Center.

The second site is informational item that was reviewed in 2000 pertaining to an unexpected discovery of hydrocarbon-impacted soil immediately south of the project site at 876 Seaport Boulevard.[25] Excavated soils were cleaned up and removed and site review was completed. No regulatory case was opened or need for additional work was identified.

The third site is an open cleanup site outside of the project area southeast of the entrance to the Pacific Shores Center at 775 Seaport Boulevard where light and medium hydrocarbons were released to soil and groundwater from former above ground storage tanks.[26]

EnviroStor identifies a Voluntary Cleanup site at Sims Metal outside of the project area southeast of the entrance to the Pacific Shores Center at 699 Seaport Boulevard,[27] where there was observed release of hazardous waste or hazardous waste constituents. An enforcement order for corrective action was issued in March 2022. EnviroStor further identifies that subsequent inspections in 2023 and 2024 have identified items for corrective action at 699 Seaport Boulevard. A Hazardous Waste Permit Facility permit application submitted by Sims Metal in December 2022 was withdrawn in June 2025.[28]

3.8.3.2.3 San Carlos Airport

The San Carlos Airport is approximately 2.3 miles west of the project area in San Carlos, California. The airport is classified as a Local Reliever Airport, which is an airport that serves general aviation flights and provides improved general aviation access to the community. The project site is located within the Airport Influence Area (AIA) as identified in the Comprehensive ALUCP for the Environs of the San Carlos Airport.[29] The AIA is broken down into Area A, which requires real estate disclosure of the presence of the airport, and Area B, which requires new plans and projects to demonstrate consistency with the goals and policies of the ALUCP. Along with a large portion of San Mateo County, the project area is part of Area A, which is

[23] California State Water Resources Control Board (SWRCB). 2023 and 2025. GeoTracker database. Available: http://geotracker.waterboards.ca.gov/. Accessed December 4, 2023 and September 27, 2025.

[24] California State Water Resources Control Board (SWRCB). 2025. GeoTracker database. Case Summary: Pacific Shores Development (T0608185737), 1000 Seaport Boulevard. Available: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608185737. Accessed September 27, 2025.

[25] California State Water Resources Control Board (SWRCB). 2025. GeoTracker database. RMC Pacific Materials (T10000008783), 876 Seaport Boulevard. Available: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000008783. Accessed September 29, 2025.

[26] California State Water Resources Control Board (SWRCB). 2025. GeoTracker database. Case Summary: ARCO Bulk Plant #69209, Former (T0608179358), 775 Seaport Boulevard. Available: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608179358. Accessed September 27, 2025.

[27] California Department of Toxic Substances Control. 2025. EnviroStor database. Case Summary: Sims Metal Management – Redwood City (60002852), 699 Seaport Boulevard. Available: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60002852. Accessed September 27, 2025.

[28] California Department of Toxic Substances Control. 2025. EnviroStor database. Case Summary: Sims Metal - Redwood City (CAD103500880), 699 Seaport Boulevard. Available: https://www.envirostor.dtsc.ca.gov/public/hwmp_profile_report?global_id=CAD103500880&starttab=. Accessed September 27, 2025.

[29] City/County Association of Governments of San Mateo County. October 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

outside of the airport safety zones and noise contours (see also Figure 3.11-3 in Section 3.11, Noise and Vibration, of this Draft EIR).

3.8.4 Thresholds of Significance

The proposed project would result in significant impacts associated with hazards and hazardous materials if it would:

Impact 3.8-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact 3.8-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact 3.8-3 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment**.**

Impact 3.8-4 If located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.

3.8.5 Project Impacts

3.8.5.1 Impact 3.8-1

Impact 3.8-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

3.8.5.1.1 Construction

3.8.5.1.1.1 Ferry Terminal

Construction activities associated with the ferry terminal include importing of fill, removal of existing railroad tracks, utilities, dredging, and construction and installation of the ferry terminal features, utilities, and new hardscape and landscaping. These construction activities would involve the transport, storage, use, and disposal of certain hazardous materials associated with use of construction equipment on-site, including vehicle fuels (both gasoline and diesel), oils, solvents, and transmission fluids that are used routinely during construction activities. The types and amounts of hazardous materials would vary according to the nature of the activity. However, all storage, handling, and disposal of these materials are strictly regulated by the Hazardous Materials Transportation Act, RCRA, OSHA, the California Hazardous Waste Control Law, and other federal, State, and local regulations and regulatory agencies. All hazardous materials used during construction of the ferry terminal would be used, stored, and transported in compliance with applicable requirements described in **Section 3.8.3.1**. Such compliance would reduce the potential for construction of the ferry terminal to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Additionally, for construction of the ferry terminal, haul trucks would transport fill material which would elevate the 9.2-acre project site by approximately seven feet. This material includes soils transported from off-site, which would be comprised of material that has been previously tested and approved consistent

with City Engineering Standards[30] and it would not contain hazardous material. Hauling of the fill material would occur in compliance with Chapter 20, Article VI, Truck Traffic Routes, of the Redwood City Municipal Code.

The demolition and relocation of the maintenance building, demolition of a portion of the western public parking lot, paving the existing segment of the Bay Trail east of the project site, Seaport Boulevard widening and intersection improvements, and relocation of the railroad tracks would not occur within the clean fill. Due to the industrial history of the project area, these activities would require ground disturbing and excavation activities that could require the removal and transport of potentially contaminated soils from the project site. If contaminated soils are encountered during construction, they would be disposed of in accordance with federal, State, and local requirements at landfills authorized to accept these types of hazardous wastes. With compliance with these requirements, the impact would be less than significant related to the routine transport, use, or disposal of hazardous materials.

For construction of the ferry terminal waterside elements, tug-supported barges would be used to transport and stage equipment and materials. All vessels would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR, which regulates the transportation of hazardous materials by vessel and the Lempert Keene-Seastrand Oil Spill Prevention and Response Act that requires immediate State notification and containment and clean-up of any discharge of oil into waters of the State as discussed in **Section 3.8.3.1**. Additionally, dredging of up to 9,200 cubic yards of sediment would be required to enable ferry access from the Redwood Creek channel to the ferry dock. Dredged material would be removed by barges and taken to an off-site disposal facility for beneficial reuse. During transport, the dredged material would be secured, with precautions in place to minimize any risk of spills. Dredged Bay sediment has the potential to contain contaminated materials. However, sampling of Bay sediment in Redwood Creek indicates that removed sediments would be suitable for unconfined aquatic disposal or beneficial re-use.[31] Therefore, none of the sediment to be dredged would be classified as a hazardous material. Additional discussion on in-water construction and dredging, including permitting requirements and construction BMPs to protect water quality, is provided in Section 3.9, Hydrology and Water Quality, of this Draft EIR.

As described above, construction of the ferry terminal would comply with regulations and permit requirements pertaining to hazardous materials and would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

3.8.5.1.1.2 Visitor-Serving Uses

Construction activities associated with the visitor-serving uses include site preparation, installation of utilities, site paving, painting/striping, installation of drought tolerant landscaping and lighting, installation of wastewater collection and conveyance systems, establishment of a driveway connection with the ferry terminal access roadway, removal of the existing dock parallel to the shore along Westpoint Slough, and building construction. These construction activities would involve the use of certain hazardous materials

[30] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

[31] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

associated with use of construction equipment on-site, including vehicle fuels (both gasoline and diesel), oils, solvents, and transmission fluids. The types and amounts of hazardous materials would vary according to the nature of the activity. These types of materials, however, are not acutely hazardous, and all storage, handling, and disposal of these materials must comply with the regulations described in **Section 3.8.3.1**. These regulations implement requirements which reduce the likelihood that the routine use, storage, handling, and disposal of hazardous materials would result in a significant hazard to the public. Compliance with these regulations would thus reduce the potential for construction of the visitor-serving uses to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the impact would be less than significant.

3.8.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction activities for the ferry terminal and the visitor-serving uses would involve the use of hazardous materials associated with use of construction equipment on-site, including vehicle fuels (gasoline and diesel), oils, solvents, and transmission fluids. These types of materials are not acutely hazardous, and all storage, handling, and disposal of these materials must comply with the regulations described in **Section 3.8.3.1**. Additionally, all vessels used for in-water construction and dredging would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances. Dredging activities and the hauling of fill material would comply with regulations and permit requirements, and neither the dredged sediment nor the artificial fill would be classified as hazardous materials. Construction of the proposed project would comply with regulations and permit requirements pertaining to hazardous materials and would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

3.8.5.1.2 Operations

3.8.5.1.2.1 Ferry Terminal

Ferry terminal operational activities that could involve use of small amounts of hazardous materials would include landscaping, general maintenance and repair of the ferry terminal and associated facilities, cleaning and maintenance of the interim portable restroom, and trash service. The materials used, such as oil, grease, solvents, paints, common cleaning products, and pesticides, would be used for facility upkeep and would only be considered hazardous if used inappropriately or if exposed to unfavorable conditions, such as high heat or rain and flooding. All potentially hazardous materials transported, stored, or used on the project site would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. The relocated maintenance building may be used to store small amounts of hazardous materials for landscaping such as fuel for small landscape and site maintenance equipment, lubricants, fertilizers, and pesticides. This use would be consistent with the use of the existing maintenance building and the substances would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. As discussed in Chapter 2, Project Description, of this Draft EIR, operations of the ferry terminal would include the operation of a ferry fleet using diesel fuel. The fleet would be compliant with USEPA's Tier 4 emission standards, which require the cleanest combustion engines and are equipped with diesel particulate filters. WETA's current fleet includes newer vessels that meet USEPA's Tier 4 emission standards, while the remainder are being upgraded under WETA's Commercial Harbor Craft (CHC) Alternative Control of Emissions (ACE) Compliance Plan to achieve Tier 4

standards with diesel particulate filters, where feasible. The routine use, storage, handling, and disposal of diesel fuel at the project site would be limited to the operations of the diesel-fueled ferry vessels. Fueling and maintenance of the ferry vessels would occur at the Water Emergency Transportation Authority (WETA) Central Bay Operations and Maintenance Facility (CBOMF) in Alameda which was addressed in the Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility.[32] Diesel fuel would be stored at the WETA CBOMF, and no storage of fuel for the vessels would occur at the project site. All vessels would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR. Vessel operations would be operated in compliance with WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan. Several practices described in the plan would help to lessen the risk of human error including: prohibiting "topping off" of fuel, setting a target of 85-percent of capacity when fueling, equipping vessels with visual alarms when tanks reach 85 percent capacity and audible alarms when tanks reach 95 percent capacity, containment mats for use during re-fueling, and use of drip pans below hose connections or other potential leak sources. Should a spill occur, the Plan imposes detailed procedures and engineering requirements to prevent and address harmful spills and discharges. These include placement of booms around sensitive areas and in accordance with strategies identified for particular areas around the San Francisco Bay, as described in WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan. With compliance with existing regulations governing the use, storage, handling, and disposal of diesel fuel, the impact would be less than significant.

Maintenance dredging, if required, would occur every 2-10 years depending on the specific needs. Maintenance dredging would unearth Bay sediment, which would then be removed by barges and taken to an off-site disposal facility for beneficial reuse. Dredged Bay sediment has the potential to contain contaminated materials. However, sampling of Bay sediment in Redwood Creek indicates that removed sediments would be suitable for in-bay disposal or beneficial reuse. Additionally, a study analyzing the impacts of proposed maintenance dredging in the Redwood Creek channel found impacts associated with hazards and hazardous materials are less than significant for all dredging options. The study concluded that the greatest hazards would be associated with any over-water fueling of dredging, construction, or off-loading equipment.[33] Vessels used for maintenance dredging would be refueled off-site, and no refueling or storage of hazardous materials would occur on-site. All vessels would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR, which regulates the transportation of hazardous materials by vessel and the Lempert Keene-Seastrand Oil Spill Prevention and Response Act that requires immediate State notification and containment and clean-up of any discharge of oil into waters of the State as discussed in **Section 3.8.3.1**.

WETA is preparing a phased transition of its ferry fleet from diesel to zero emission vessels (ZEV). Once the existing vessels reach the end of their useful life, all current vessels in the San Francisco Bay Ferry fleet

[32] WETA. 2011. Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility.

[33] HydroPlan LLC. June 2015. Draft Integrated Feasibility Report and Environmental Impact Statement/Environmental Impact Report: Redwood City Harbor Navigation Improvement Feasibility Report and Integrated EIS/EIR. Contract No. W912P7-11-D-0004. Task Order No. 0013. Available: https://files.library.northwestern.edu/transportation/online/unrestricted/EIS/2015/20150186/Redwood%20City%20Integrated%20Report%20-%20Public%20Review%20Draft%20-%207-1-15.pdf.

would be replaced with ZEVs. The useful life of the vessels that would operate on the Redwood City routes is approximately 25 years. Thus, at or within that 25-year timeframe, the Redwood City routes are expected to be served by ZEVs in compliance with WETA policies. However, because there is no feasible ZEV technology currently available for ferries to serve the proposed Redwood City routes, the use of diesel ferries is assumed for ferry operations over the life of the project for purposes of this environmental analysis to present a conservative evaluation of the environmental impacts of the proposed project. Because the technology that may be used is not, and cannot be known at this time, no specific technology is identified or analyzed. However, as discussed in Chapter 2, Project Description, the ferry terminal design would facilitate the transition to electrification should that be the future technology used to transition the Redwood City route to ZEVs. This includes providing compartments in the float for future power electronics and equipment and space to accommodate electric vessel charging infrastructure and an on-site battery energy storage system (BESS) to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. The transition from diesel-fueled vessels to ZEVs would decrease and eventually eliminate the routine use, storage, handling, and disposal of diesel fuel for operations of the proposed project. Should a BESS be installed in the future, it would not require the routine use, storage, handling, or disposal of hazardous materials such as diesel fuel, although proper maintenance and use of the BESS would be required to prevent hazards such as fire, smoke, and toxic contamination. However, future technologies used for ferry operation, such as a BESS, would be required to comply with the applicable safety requirements that are in place when the technology is implemented, such as CPUC General Order 167 pertaining to safety requirements for battery storage systems. Compliance with these requirements would reduce the likelihood that the routine use, storage, handling, and disposal of hazardous materials would result in a significant hazard to the public related to the BESS should it be installed in the future.

Therefore, operation of the ferry terminal would comply with regulatory requirements pertaining to the handling of hazardous materials and would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

3.8.5.1.2.2 Visitor-Serving Uses

Operational activities associated with the visitor-serving uses include the operation of a hotel that may include facilities such as restaurant(s) and pool, a restaurant, and limited office uses, which would include the use of potentially hazardous materials such as cleaning solvents used for janitorial purposes, chemicals for pool cleaning and maintenance, landscaping fertilizer, kitchen grease and oils for cooking, and materials used for general site and facility maintenance. These materials would be used for facility upkeep and standard operations and would only be considered hazardous if used inappropriately or if exposed to unfavorable conditions, such as high heat or rain and flooding. However, all potentially hazardous materials transported, stored, or used on the project site would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

Therefore, operation of the visitor-serving uses would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

3.8.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Project operations would include the use of potentially hazardous materials such as cleaning solvents used for janitorial purposes, pool cleaning and maintenance chemicals, landscaping fertilizer, kitchen grease and oils for cooking, and materials used for maintenance. These materials would be used for facility upkeep and standard operations and would only be considered hazardous if used inappropriately or if exposed to unfavorable conditions, such as high heat or rain and flooding. Maintenance of the ferry vessels would occur at the WETA CBOMF in Alameda, and no refueling or storage of fuels or large quantities of others hazardous materials would occur on-site. Maintenance dredging would unearth Bay sediment, which would then be removed by barges and taken to for off-site disposal. These barges would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR, which regulates the transportation of hazardous materials by vessel.

All potentially hazardous materials transported, stored, or used on the project site would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore, operation of the proposed project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

3.8.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.8.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.8.5.2 Impact 3.8-2

Impact 3.8-2: Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

3.8.5.2.1 Construction

3.8.5.2.1.1 Ferry Terminal

As discussed under Impact 3.8-1, construction activities would involve the use of certain hazardous materials associated with use of construction equipment on-site, including vehicle fuels (both gasoline and diesel), oils, solvents, and transmission fluids. These types of materials are not acutely hazardous, and would be stored, handled, and disposed of in compliance with the regulations described in **Section 3.8.3.1**.

Inadvertent releases of hazardous materials on construction sites are typically localized and would be cleaned up in a timely manner. Further, the likelihood of potential releases of hazardous substances during construction would be reduced through compliance with the EPCRA, the Hazardous Materials Release Response Plans and Inventory Law, and the California Hazardous Waste Control Law, which would govern proper containment, spill control, and disposal of hazardous waste generated during construction. Compliance with regulations would limit both the frequency and severity of potential releases of hazardous materials.

Additionally, as identified in **Section 3.8.3.1.2** and discussed in further detail in Section 3.9, Hydrology and Water Quality, and Section 3.6, Geology, Soils, and Paleontological Resources, of this Draft EIR, the use of construction BMPs implemented as part of a SWPPP required by the NPDES General Construction Permit would minimize the potential for accidental spills of fuels, lubricants, and solvents from vessels and landside equipment. Typical BMPs would include: waste management procedures; requirements for proper storage of hazardous materials; and preventative and responsive measures for addressing hazardous spills. Construction contract specifications in the SWPPP would include strict on-site handling rules to prevent construction and maintenance materials from entering surface waters, groundwater, and soils. While construction activities would slightly increase the potential for spills and releases at the project site, this increase would not be substantial due to the controls described above.

As discussed in **Section 3.8.3.2.2** and shown on **Table 3.8-1**, the project area is located within 0.25-mile of several sites identified in the GeoTracker and EnviroStor databases where soil and/or groundwater contamination has been identified. These instances are localized and are not indications of the presence of widespread contamination in the project area. None of the identified sites are within the project area where ground disturbance could occur. As discussed in **Section 3.8.3.2.2**, there have been remediation efforts for these sites. These identified sites have not resulted in major contamination of the project area. Therefore, it is unlikely that soil and/or groundwater contamination has spread from these sites to the project site.

As identified in **Section 3.8.3.2**, limited concentrations of diesel fuel (22 to 35 parts per million) were detected in two soil samples collected from the project site in 1990. The locations of the borings were not identified. Additionally, there have been industrial uses at the site and known presence of storage tanks. However, since the early 1990s, the project site has either been unused or used for aggregate stockpiling. No other major industrial uses that would cause contamination have occurred since. Therefore, the project site may contain unknown contamination related to existing and/or past uses on-site or on surrounding properties.

Construction would involve the placement of approximately seven feet of fill material on top of the existing soil at the 9.2-acre project site. Construction of the ferry terminal and access improvements, including trenching for new and relocated utilities, would occur within the new fill imported to the project site that has been previously tested and approved consistent with City Engineering Standards.[34] Construction within the project site would occur within the new fill and have no potential to disturb existing soils and groundwater; therefore, if contaminated soils are present, these soils would be covered with new, clean fill and would not be disturbed during construction. However, of the up to 10 piles used to support the access pier, approximately two would be placed landside on the project site and extend into existing soils. The piles would be precast steel or concrete piles and installed using an impact hammer or vibratory hammer. This installation would displace surrounding soil by pushing it laterally into the surrounding soils and would not generate spoil material (soil that is removed from the ground).[35] As discussed above, the laterally displaced soil would consist of clean new fill soil to a depth of 7 feet below

[34] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

[35] California Department of Transportation (Caltrans) Division of Engineering Services. October 2015. Foundation Manual. Issued by Structure Construction. Available: https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/structureconstruction/foundation/sc-foundation-a11y.pdf.

ground surface. Any contaminated soils that may be present would be below this depth and would not be generated as spoil material. Therefore, because spoil material would not be generated and accumulated at the surface, workers would not be exposed to underlying soils during pile driving and there would not be a significant hazard to the public or the environment involving the release of hazardous materials into the environment.

Piles installed in the tidelands and water would also be installed using an impact hammer or vibratory hammer, which would similarly displace surrounding sediments and not generate spoils. Further, as discussed in **Section 3.8.3.2.1**, testing of sediments within Redwood Creek near the project site have contaminant concentrations that are consistent with or below the ambient sediment concentrations within the San Francisco Bay. Sediments would not be classified as a hazardous material and would be suitable for unconfined aquatic disposal or beneficial reuse.[36] Therefore, in-water pile driving and dredging of the ferry berth would not create a significant hazard to the public or the environment involving the release of hazardous materials into the environment. Additionally, all vessels utilized during dredging and in-water construction would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR.

The demolition and relocation of the maintenance building, demolition of the portion of the public parking lot, paving the existing segment of the Bay Trail east of the project site, Seaport Boulevard widening and intersection improvements, and relocation of the railroad tracks would occur after elevation of the project site but would not occur within the clean fill. Due to the industrial history of the project area, these activities would require ground disturbing and excavation activities that could require the removal and transport of potentially contaminated soils from the project site. If contaminated soils are encountered during construction, they would be disposed of in accordance with federal, State, and local requirements at landfills authorized to accept these types of hazardous wastes. With compliance with these requirements, the impact would be less than significant related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

As described above, compliance with regulations, including implementation of BMPs, would limit both the frequency and severity of potential releases of hazardous materials. Any existing contaminated soils that may be present at the project site would be overlain with fill that has been tested and approved in compliance with City Engineering Standards. Therefore, construction of the ferry terminal would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and impacts would be less than significant.

3.8.5.2.1.2 Visitor-Serving Uses

Construction activities associated with the visitor-serving uses include site preparation, installation of utilities, site paving, painting/striping, installation of drought tolerant landscaping and lighting, installation of wastewater collection and conveyance systems, establishment of a driveway connection with the ferry terminal access roadway, removal of the existing dock parallel to the shore along Westpoint Slough, and building construction. As discussed under Impact 3.8.1 above, these construction activities would involve

[36] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

the use of certain hazardous materials associated with use of construction equipment on-site. These types of materials are not acutely hazardous, and all storage, handling, and disposal of these materials must comply with the regulations described in **Section 3.8.3.1**. As discussed in **Section 3.8.5.2.1.1**, compliance with regulations, including implementation of BMPs, would limit both the frequency and severity of potential releases of hazardous materials.

As previously discussed, limited concentrations of diesel fuel were detected in two soil samples collected from the project site in 1990. Additionally, there have been industrial uses at the site and known presence of storage tanks, which have since been removed. Therefore, the project site may contain unknown contamination related to existing and/or past uses on-site or surrounding properties.

As described above, construction of the ferry terminal would include the placement of approximately seven feet of fill material on top of the existing materials at the 9.2-acre project site. Construction of the visitor-serving uses, including trenching for new and relocated utilities, would occur within this new fill. Deep pile foundations for the new buildings and connection to the existing sewer line would be the only construction activities that would extend into the existing soils. The type of piles to be used is unknown but is assumed to entail bored piles or cast-in-situ piles that are placed within a drilled borehole and replace excavated soil. The drilled borehole would generate spoils, thereby potentially exposing workers to soils contaminated by diesel fuels and other potential unknown contaminants. Additionally, due to the high groundwater table,[37] groundwater may be encountered during installation of the deep pile foundations and connection to the existing sewer line. If contaminated soils or groundwater are encountered during pile driving activities, the soils and/or groundwater would be treated in place, or excavated, transported, and disposed of in accordance with applicable regulatory agencies, including DTSC and the RWQCB. Further, OSHA and Cal/OSHA standards establish exposure limits for certain hazardous contaminants. Exposure limits define the maximum amount of hazardous chemicals to which an employee may be exposed over specific periods. Compliance with Cal/OSHA standards for hazardous waste operations (Title 8 CCR Section 5192) would be required for those individuals involved in the investigation or cleanup work. Employers are also required to provide a written health and safety program, worker training, emergency response training, and medical surveillance. Compliance with regulations would limit both the frequency and severity of potential releases of hazardous materials. However, as the specific location and extent of diesel contaminated soils is not known, construction of the visitor-serving uses poses a potential for upset and accident conditions involving the release of hazardous materials into the environment, which would be a significant impact.

3.8.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, while construction activities would involve the use of certain hazardous materials associated with use of construction equipment, those materials are not acutely hazardous, and all storage, handling, and disposal must comply with the regulations described in **Section 3.8.3.1**. Furthermore, construction activities would implement BMPs as part of the SWPPP for the project to reduce the chance for unexpected releases of hazardous materials and establish response procedures should a release occur. Dredging and in-water construction would also occur in compliance with all applicable regulations related to fueling and management of hazardous substances.

[37] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

Limited concentrations of diesel fuel were detected in two soil samples collected from the project site. During ferry terminal construction, approximately seven feet of new fill material would be placed on top of the existing soil at the 9.2 acre project site. Most construction, except for pile driving and connection to the existing sewer line for the visitor-serving uses, would occur within the new fill. Displacement pile driving for the access pier and ferry float would not generate spoil material. However, deep pile foundations for structures associated with the visitor-serving uses could generate spoils and potentially expose workers to contaminated soils. Therefore, construction of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and the impact would be significant.

3.8.5.2.2 Operations

3.8.5.2.2.1 Ferry Terminal

Ferry terminal operational activities would include security, landscaping, general maintenance, portable toilet cleaning and maintenance, and electricity, water, telecommunications, and trash service. Regular maintenance would include inspections of the vessels for fuel and lubricant leaks on a regular basis to minimize the risk of the accidental release of hazardous materials into the Bay. Maintenance dredging, if required, would occur every 2-10 years depending on the specific needs. As discussed in Section 3.9, Hydrology and Water Quality, maintenance dredging would require permits from the DMMO agencies including USACE, BCDC, and RWQCB which could involve amending the Port's existing permit for dredging of other berths to include the ferry terminal. Maintenance dredging would unearth Bay sediment, which would then be removed by barges and taken to an off-site disposal facility. Dredged Bay sediment has the potential to contain contaminated materials. However, as described in **Section 3.8.5.1.1.1**, none of the sediment to be dredged would be classified as a hazardous material and vessels that would carry out the dredging operations would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR, which regulates the transportation of hazardous materials by vessel.

As discussed in Chapter 2, Project Description, of this Draft EIR, operations of the ferry terminal would include the operation of a ferry fleet using diesel fuel. The fleet would be compliant with USEPA's Tier 4 emission standards, which require the cleanest combustion engines and are equipped with diesel particulate filters. WETA's current fleet includes newer vessels that meet USEPA's Tier 4 emission standards, while the remainder are being upgraded under WETA's CHC ACE Compliance Plan to achieve Tier 4 standards with diesel particulate filters, where feasible. Fueling and maintenance of the vessels would occur at the WETA CBOMF in Alameda as addressed in the Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility.[38] No storage of fuel for the vessels would occur at the project site. All vessels would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances, including Title 49 Subchapter C Part 176 of the CFR. Vessel operations would be operated in compliance with WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan.[39] Several practices described in the plan would help to lessen the risk of human error including: prohibiting

[38] WETA. 2011. Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility.

[39] WETA. September 2022. Blue & Gold Fleet Small Marine Fueling Facility Response Plan. Prepared by Weber Readiness, LLC.

"topping off" of fuel, setting a target of 85-percent of capacity when fueling, equipping vessels with visual alarms when tanks reach 85 percent capacity and audible alarms when tanks reach 95 percent capacity, containment mats for use during re-fueling, and use of drip pans below hose connections or other potential leak sources. Should a spill occur, the Plan imposes detailed procedures and engineering requirements to prevent and address harmful spills and discharges. These include placement of booms around sensitive areas and in accordance with strategies identified for particular areas around the San Francisco Bay, as described in WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan.

In addition, the existing regulatory framework and navigational procedures would continue to minimize the potential for accidents that could result in a release of product during transport under the proposed project. Accordingly, although the proposed project would increase vessel traffic, with the existing navigational safety requirements and practices, the new ferry service is not expected to substantially increase the likelihood or consequences of a release during navigation.

As discussed in **Section 3.8.5.1.2.1**, WETA is preparing a phased transition of its ferry fleet from diesel to ZEVs, which is expected to occur within a 25-year timeframe. The use of electric vessels to service the Redwood City routes would eliminate risks associated with accidental leaks and spills from diesel powered vessels and would not result in a significant hazard to the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Minor amounts of potentially hazardous materials including cleaning solvents used for janitorial purposes, and landscaping fertilizer may be used or stored on-site. All potentially hazardous materials transported, stored, or used on the project site would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations as described in **Section 3.8.3.1**. Thus, operations of the ferry terminal would not create additional long-term risks to the public or the environment from these substances.

As previously discussed, the project site would be covered with approximately 7 feet of compacted new fill that would overly the existing soils. During operations, no grading, excavation, or other activities which would unearth soils below the fill would occur. Therefore, operation of the ferry terminal would not create a hazard to the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Compliance with regulations, including implementation of BMPs, would limit both the frequency and severity of potential releases of hazardous materials. Therefore, operation of the ferry terminal would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and impacts would be less than significant.

3.8.5.2.2.2 Visitor-Serving Uses

Operational activities associated with the visitor-serving uses include the operation of a hotel and related facilities, a restaurant, and limited office uses. Operation of the visitor-serving uses would include the use of potentially hazardous materials including cleaning solvents used for janitorial purposes, landscaping fertilizer, kitchen grease and oils for cooking, and materials used for maintenance. All potentially hazardous materials transported, stored, or used on the project site would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

Additionally, the project site would be underlain with approximately 7 feet of compacted new fill, which would overlie any potentially contaminated soils. No grading, excavation, or other activities which would unearth soils below the fill would occur. However, limited concentrations of diesel fuel (22 to 35 parts per million) were detected in two soil samples collected from the project site in 1990. Vapor intrusion occurs when there is a migration of vapor-forming chemicals from a subsurface source into an overlying building (i.e., soil gas). Should petroleum hydrocarbons that exceed thresholds established by the California Health and Safety Code and Title 22 be present in the existing soils near the foundations for the buildings, there is the potential for soil gas intrusion to occur within the enclosed structures which could pose a risk of migrating into the buildings and accumulating in levels that could pose a risk of health effects. As such, operation of the visitor-serving uses would result in a significant impact relative to potential vapor intrusion.

Therefore, operation of the visitor-serving-uses could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and the impact would be significant.

3.8.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, operation of the proposed project would include the use of potentially hazardous materials associated with the landscaping, kitchen operations, cleaning, and maintenance. These materials would be transported, contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Maintenance dredging would also occur in compliance with all applicable regulations related to fueling and management of hazardous substances, which would reduce risk of upset and accident conditions.

During operations no grading, excavation, or other activities which would unearth soils below the new clean fill would occur. However, as discussed above, there is the potential for soil gas intrusion to occur within the enclosed structures, which could expose occupants of the visitor-serving uses to gas vapors released from underlying soil contaminated with diesel fuels. Therefore, operation of the proposed project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The impact would be significant.

3.8.5.2.3 Mitigation Measures

The following mitigation measure would reduce the impact to related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction and operations:

MM HAZ-1: Specific site design for the visitor-serving uses has not been developed and the precise mix of uses, building location, and foundation design is not yet known. Once project-level information on the site design, uses, and depth of foundations is known and prior to the start of construction for the visitor-serving uses, the applicant shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment (ESA) to determine whether contaminated soils are present on the project site in the area where exposure of soils underlying the seven feet of new artificial fill would occur. The Phase II ESA shall include physical testing of the soils underlying the visitor-serving uses structures to confirm or refute contamination from petroleum hydrocarbons that exceed thresholds

established by the California Health and Safety Code and Title 22. This would involve sampling and laboratory analysis of soil, water, and other environmental samples to determine the type and concentration of contaminants within the project site at a laboratory certified for environmental testing using U.S. Environmental Project Agency (USEPA)-approved testing methods. Then, the environmental professional shall compare the results of the laboratory findings to determine if any constituents exceed regional screening levels (RSLs) established by the USEPA, which represent risk-based concentrations derived from standardized equations combining exposure information assumptions with USEPA toxicity data. The Phase II ESA shall also assess the potential for vapor intrusion to occur. Finally, the environmental professional shall prepare a Phase II ESA report for review by the Port of Redwood City summarizing the findings.

If contaminated soils are found that exceed established RSLs, and/or a vapor intrusion risk associated with those contaminated soils is identified, plans shall be prepared to avoid construction on or within areas the area of soil contamination or where soil disturbance (e.g., pile driving or sewer connections) may result in disturbance of contaminated soils and/or soil vapor intrusion.

If contaminated soils cannot be avoided, or if the Phase II ESA suggests that previously unidentified contaminated soils may be encountered within the construction area, a site-specific Soil Management Plan shall be prepared and implemented by the Port's construction contractor that meets the specifications for a Soil Management Plan listed below. If the Phase II ESA identifies a potential for vapor intrusion to occur, a Soil Vapor Survey with an accompanying human health risk assessment shall be prepared by the Port or Port's construction contractor that meets the specification for a Soil Vapor Survey listed below.

Soil Management Plan:
If the Phase II ESA identifies the presence of contaminated soils that exceed established regulatory thresholds, prior to pile driving or other activities that would result in worker exposure to contaminated soils, the Port's contractor shall prepare a Soil Management Plan to address handling and treatment and/or disposal of contaminated soil prior to excavation and construction activities. The Port shall consult with San Mateo County Health, Department of Toxic Substances Control (DTSC), and/or other appropriate regulatory agencies to verify that contaminated soils are excavated/disposed of, treated in-situ [in-place] or otherwise managed in accordance with the agency(s)', and other applicable federal and State requirements. The Soil Management Plan shall specify all necessary procedures to ensure the safe handling and treatment and/or disposing of excavated soil in a manner that is protective of human health and in accordance with federal and State hazardous waste laws, including the Hazardous Materials Transportation Act, Title 49 CFR Parts 171 and 176, the California Hazardous Waste Control Law, and Title 22 CCR Divisions 4 and 4.5. At a minimum, the plan shall include the following:

- Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel;

- Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils including procedures for containing, handling, and treating and/or disposing of hazardous waste, the method used to analyze excavated materials for hazardous materials likely to be encountered at specific locations, and appropriate treatment and/or disposal methods;
- Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies (per Resource Conservation and Recovery Act [RCRA] and California Division of Occupational Safety and Health [Cal/OSHA] requirements);
- Minimum requirements for safety manuals and construction work plans, to protect the general public and workers in the construction area (per Cal/OSHA requirements); and
- The Port's construction contractor shall sample any groundwater suspected of contamination. If any contaminated groundwater is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact the Port and immediately notify the San Francisco Bay Regional Water Quality Control Board. In coordination with the San Francisco Bay Regional Water Quality Control Board, an investigation and remediation plan shall be developed in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed according to local, State, and federal regulations.

Soil Vapor Survey:
If the Phase II ESA identifies that there is a potential for vapor intrusion, a Soil Vapor Survey with an accompanying human health risk assessment shall be prepared by a qualified environmental professional within the footprint of planned new construction. The vapor intrusion survey shall follow the DTSC, California State Water Resources Control Board, and California Environmental Protection Agency (CalEPA) Final Draft Supplemental Guidance: Screening and Evaluating Vapor Intrusion dated February 2023 or updated guidance issued by the State at the time the survey is conducted.

If the survey identifies a vapor intrusion risk, prior to construction of any buildings, the Port or Port's construction contractor shall demonstrate how this risk shall be managed, through either remediation of the soil contamination with measures such as in-situ soil vapor extraction (SVE) or ex-situ excavation and treatment, or institutional controls that prevent exposure or reduce exposure including a vapor intrusion mitigation system that is incorporated into the design of the new building(s). Documentation shall be provided to the Port demonstrating that the risk management approach would maintain indoor air concentrations that are below regulatory risk concentration thresholds. The risk management approach, documentation techniques, and verification that threats to human health have been abated shall follow the DTSC's and CalEPA's Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) dated October 2011 or updated guidance issued by the State at the time the vapor intrusion risk management approach is being developed. If institution controls are

implemented, long-term monitoring shall be implemented consistent with the State's published guidance. Pursuant to the State's guidance, the frequency of sampling and duration of monitoring will depend upon site-specific conditions and the degree of volatile chemical contamination. The vapor intrusion risk management approach shall be identified on the project plans.

3.8.5.2.4 Significance of Impact After Mitigation

Mitigation Measure MM HAZ-1 requires preparation of a Phase II ESA to identify if diesel contaminated soils underly the visitor-serving uses and if a soil vapor intrusion risk exists. If contaminated soils are identified, a Soil Management Plan must be developed prior to construction to address handling and treatment or disposal of contaminated soils in accordance with federal and State hazardous waste laws. If the Phase II ESA identifies a soil vapor intrusion risk, a Soil Vapor Survey must be completed prior to construction of visitor-serving uses, and, if needed, soil remediation or institutional controls must be implemented to prevent or reduce soil vapor gas exposure consistent with State guidance. Mitigation Measure MM HAZ-1 would reduce the potential for construction and operation of the proposed project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, to less than significant.

3.8.5.3 Impact 3.8-3

Impact 3.8-3: Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result create a significant hazard to the public or the environment?

3.8.5.3.1 Construction

3.8.5.3.1.1 Ferry Terminal

The project site is not listed on the Hazardous Waste and Substances Site List that is maintained by DTSC, pursuant to Government Code Section 65962.5. However, as discussed in **Section 3.8.3.2.2** and shown on **Table 3.8-1**, the project site is located within 0.25-mile of several sites identified in the GeoTracker and EnviroStor databases where soil and or groundwater contamination has been identified. These instances are localized and are not indications of the presence of widespread contamination in the project area. As discussed in **Section 3.8.3.2.2**, there have been remediation efforts for these sites. These identified sites have not resulted in major contamination of the project area. Therefore, it is unlikely that soil and/or groundwater contamination has spread from these sites to the project site. The closed LUST site is the only site in the vicinity of where land use disturbance may occur associated with the proposed project (roadway widening to accommodate the new bicycle trail and sidewalk.) This closed LUST site is outside of the area of disturbance and it has undergone remediation.[40] Soil disturbance associated with the proposed project would not create a significant hazard to the public and the environment. The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled

[40] California State Water Resources Control Board (SWRCB). 2025. GeoTracker database. Case Summary: Pacific Shores Development (T0608185737), 1000 Seaport Boulevard. Available: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608185737. Accessed September 27, 2025.

pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. The impact would be less than significant.

3.8.5.3.1.2 Visitor-Serving Uses

As described for the ferry terminal above, the project site is not listed on the Hazardous Waste and Substances Site List that is maintained by DTSC, pursuant to Government Code Section 65962.5, and no ground disturbance would occur within the areas located within 0.25-mile of several sites identified in the GeoTracker and EnviroStor databases where soil and or groundwater contamination has been identified. The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. The impact would be less than significant.

3.8.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no ground disturbance would occur within the areas located within 0.25-mile of several sites identified in the GeoTracker and EnviroStor databases where soil and or groundwater contamination has been identified. The proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. The impact would be less than significant.

3.8.5.3.2 Operations

3.8.5.3.2.1 Ferry Terminal

Operation of the ferry terminal would not occur on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Further, approximately 7 feet of compacted artificial clean fill would be placed at the project site and no activities would occur during operation that would unearth soils below the fill. Operation of the ferry terminal uses would not create a significant hazard to the public or the environment related to being on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no impact would occur.

3.8.5.3.2.2 Visitor-Serving Uses

Operation of the visitor-serving uses would not occur on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Further, approximately 7 feet of compacted artificial clean fill would be placed at the project site and no activities would occur during operation that would unearth soils below the fill. Operation of the visitor-serving uses would not create a significant hazard to the public or the environment related to being on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no impact would occur.

3.8.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operation of the proposed project would not occur on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Further, approximately 7 feet of compacted artificial clean fill would be placed at the project site and no activities would occur during operation that would unearth soils below the fill. Operation of the proposed project would not create a significant hazard to the public or the environment related to being on a site which is included on a list of

hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no impact would occur.

3.8.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.8.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and there would be no impact for operations.

3.8.5.4 Impact 3.8-4

Impact 3.8-4: Would the proposed project, which is located within an airport land use plan, result in a safety hazard or excessive noise for people residing or working in the project area?

3.8.5.4.1 Construction and Operation

3.8.5.4.1.1 Ferry Terminal

As discussed in **Section 3.8.3.2.3**, the project area is in Area A of the San Carlos Airport AIA. Area A is outside of the airport safety zones and noise contours. Given that the project area is approximately 2.3 miles east of the San Carlos Airport and outside of the airport safety zones and noise contours, construction and operation of the ferry terminal would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact.

3.8.5.4.1.2 Visitor-Serving Uses

As identified for the ferry terminal above, the visitor-serving uses would be outside of the San Carlos Airport safety zones and noise contours; therefore, construction and operation of the visitor-serving uses would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact.

3.8.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would be outside of the San Carlos Airport safety zones and noise contours; therefore, construction and operation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact.

3.8.5.4.2 Mitigation Measures

No mitigation is required for construction or operations.

3.8.5.4.3 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.8.5.5 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the combined ferry terminal and visitor-serving uses development individual effect is cumulatively considerable. A significant cumulative impact would result if the

combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant. The cumulative impact analysis considers the anticipated population growth within the City. Some of this growth may or may not occur on or around properties in the City known to contain hazardous or potentially hazardous conditions, such as hazardous waste generation or handling, or the presence of leaking underground storage tanks.

Health or safety effects of routine hazardous materials use would be limited to the specific individuals using the materials and anyone in the immediate vicinity of the use. All hazardous materials used during construction and operation of the proposed project would be used, stored, and transported in compliance with applicable requirements described in **Section 3.8.3.1**. Such compliance would reduce the potential for the proposed project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Future population growth would spur new development, the construction and operation of which may involve the use, storage, handling, or transportation of hazardous materials. However, any future development would be required to use, store, transfer, and dispose of all potentially hazardous materials in accordance with manufacturers' specifications and handle them in compliance with applicable standards and regulations. Adherence to existing regulatory requirements pertaining to hazards and hazardous materials is designed to minimize exposure and protect human health and the environment. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to the routine transport, use, or disposal of hazardous materials. The proposed project's contribution to an individual effect would not be cumulatively considerable.

Risks associated with hazards and hazardous materials occur largely in a site-specific and localized context, as potential adverse impacts associated with a hazardous material release or spill diminish in magnitude with distance. As discussed above, the proposed project would result in a significant impact if foundation piles generate contaminated spoils during construction of the visitor-serving uses, or if there is the potential for soil gas intrusion to occur within the visitor-serving uses enclosed structures. The impact would be reduced to less than significant with implementation of Mitigation Measure MM HAZ-1. Therefore, with implementation of mitigation, the proposed project would not result in a significant hazard to the public through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Future development in or near areas with existing soil or groundwater contamination could result in risk of foreseeable upset and accident conditions. However, compliance with regulatory requirements, including implementation of BMPs during construction and compliance with Cal/OSHA standards for hazardous waste operations and worker safety, would minimize impacts. The forecasted growth coupled with the proposed project would therefore not result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment with implementation of Mitigation Measure MM HAZ-1. With implementation of mitigation, the proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed in **Section 3.8.5.3**, the project site is not listed on the Hazardous Waste and Substances Site List that is maintained by DTSC, pursuant to Government Code Section 65962.5. Additionally, the project site would be overlain with clean artificial fill prior to construction of the proposed project. Therefore,

implementation of the proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not result in a significant hazard to the public. Other sites within the City are listed pursuant to Government Code Section 65962.5, including several sites within 0.25 mile of the project site. Future population growth may spur the construction of development on sites which are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, with compliance with applicable regulatory requirements and agencies' cleanup requirements (e.g., RWQCB and/or DTSC) for excavation, transport, and treatment (or disposed of) any encountered contaminated soils at these sites would be addressed and impacts would be less than significant. The forecasted growth coupled with the proposed project would not result in significant impacts related to being located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As discussed in **Section 3.8.5.4**, the project area is approximately 2.3 miles east of the San Carlos Airport and outside of the airport safety zones and noise contours. Therefore, implementation of the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact and therefore, the proposed project would not contribute to a cumulative impact. The San Carlos Airport 65 decibel (dB) Community Noise Equivalent Level (CNEL) and greater noise contours[41] are located outside of the limits of the City.[42] A small area within the Redwood City boundaries southeast of the project site is located within Safety Zone 6 (Traffic Pattern)[43] of the San Carlos Airport.[44] In Safety Zone 6, new residential development is compatible and is not restricted for safety reasons and no limit is placed on the intensity of new, nonresidential uses within Safety Zone 6.[45] Therefore, future growth and development within the City would not result in a safety hazard or expose people residing or working in the City to excessive airport-related noise levels, and no significant cumulative impact would occur. The proposed project's contributions to an individual effect would not be cumulatively considerable.

[41] As discussed in Section 3.11.3.1.2 in Section 3.11, Noise and Vibration, land use incompatibility is most likely to occur for noise-sensitive uses within the 65 dB CNEL noise contour. The 65 dB CNEL standard is also referenced in the Caltrans California Airport Land Use Planning Handbook as the basic limit of acceptable noise levels for residential and other noise-sensitive uses within an urban area.

[42] City/County Association of Governments of San Mateo County. October 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

[43] The San Carlos Airport Safety Zones are given designations of Zone 1 through Zone 6, with Zone 1 (Runway Protection Zone) and Zones 2 through 5 (approach, departure, turning, and sideline zones) located within or directly adjacent to the airport property. Zone 6 (Traffic Pattern) extends farther outside the airport property boundaries.

[44] City/County Association of Governments of San Mateo County. October 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

[45] City/County Association of Governments of San Mateo County. October 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

3.8.5.5.1 Mitigation Measures

Mitigation Measure MM HAZ-1 identified in **Section 3.8.5.2.3** would reduce the proposed project's impact related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction and operations.

3.8.5.5.2 Significance of Impact After Mitigation

As indicated above, with implementation of Mitigation Measure MM HAZ-1, there would be no significant cumulative impacts related to hazards and hazardous materials.

3.8.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to hazards and hazardous materials associated with construction and operation of the proposed project.

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Section 3.9
Hydrology and Water Quality

3.9.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to hydrology and water quality, and the impacts from implementation of the proposed project. It evaluates impacts from construction and operation of the proposed project. The impact analysis section considers: (1) erosion, sedimentation, and other water quality issues; (2) flooding inundation and hazards; (3) the risk of tsunami hazards; (4) predicted sea level rise effects to flooding and emergent groundwater; and (5) effects to water quality control and sustainable groundwater management planning and implementation efforts. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.9.2 Methodology

The hydrology and water quality analysis addresses the potential for construction and operation of the proposed project to: increase the risk of degradation to surface water and groundwater quality; increase the risk of adverse conditions and hazards to the proposed project and the environment from flooding, tsunami, and sea level rise; and impede implementation of an applicable water quality control plan or sustainable groundwater management plan. Impacts are assessed through a combination of literature review (including applicable water quality criteria), a review of available water quality data and results from previous testing of Redwood Creek sediments, a sea level rise risk assessment prepared by Redwood City, and project-specific studies addressing the area's hydrologic conditions and a wake wave assessment.

The hydrology and water quality analysis outlines the current site conditions and how the improvements are designed and operated to meet water quality permitting requirements. To assess whether the proposed project would result in a significant impact to water quality, the construction and operational activities and the conceptual design of the proposed project were evaluated. To assess whether a hazard would result in a risk to water quality degradation and the proposed project's vulnerability (post-construction) to hazards, the components of the proposed project with impacts from flooding, a tsunami event, and future sea level rise were evaluated.

The evaluation of impacts associated with hydrology and flooding considered potential impacts associated with alterations to the amounts of pervious and impervious surfaces within the project site and changes to existing drainage patterns due to proposed structures and elevation change of the project site. The potential for the proposed project to cause an exceedance of the capacity of the stormwater drainage system was evaluated, as was the potential for proposed uses to impede flows or cause an increase in flooding. Floodplain impacts were evaluated by comparing the location of proposed project elements with floodplain mapping prepared by the Federal Emergency Management Agency (FEMA). Applicable water quality control plans were considered relative to the proposed project and evaluated to determine if the proposed project would impact implementation of these plans. A sustainable groundwater management plan does not exist for the project area.

For the purpose of this environmental analysis, the proposed project was assumed to comply with existing regulatory controls. As applicable, proposed project elements would be implemented in accordance with the: (1) Clean Water Act (CWA) Sections 404 for Dredging and Filling Activities and Section 401 Water Quality Certification; (2) Rivers and Harbors Act Section 10, U.S. Army Corps of Engineers (USACE) San Francisco District Dredged Material Management Office (DMMO); (3) Water Quality Control Plan for the San Francisco Bay; (4) National Pollutant Discharge Elimination System (NPDES) Permit Programs; (5) San Francisco Bay Conservation and Development Commission (BCDC) and McAteer-Petris Act; (6) San Mateo Countywide Water Pollution Prevention Program; and (7) Redwood City Stormwater Management and Discharge Control Program. Published technical material and maps which identify hydrological and water quality conditions in the project area from the U.S. Coast Guard (USCG), USACE, FEMA, National Oceanic and Atmospheric Administration (NOAA) Western Regional Climate Center, California Department of Water Resources, San Francisco Bay Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), and California Department of Conservation were reviewed for information.

The following documentation was also reviewed and evaluated as a part of this analysis:

- Redwood City Sea-Level Rise Vulnerability and Adaptation Planning Study, prepared by ESA in 2024;[1]
- Geotechnical Desktop Study for the Port of Redwood City Ferry Terminal Project, prepared by COWI in 2024 (Appendix E of this Draft EIR);
- FEMA Flood Insurance Rate Maps;
- Redwood City General Plan Public Safety Element and Municipal Code;
- Countywide Water Pollution Prevention Program, C.3 Regulated Projects Guide, prepared by the City/County Association of Governments of San Mateo County (C/CAG) in 2023;[2]
- Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City, prepared by Haley & Aldrich for the Port of Redwood City in 2024 (Haley & Aldrich Report);[3] and
- Port of Redwood City – Ferry Terminal Environmental Review, Ship Wake and Morphology Assessment Report, prepared by COWI in 2025 (Appendix G of this Draft EIR).

The potential impacts during construction are typically related to the potential for failure of temporary water quality best management practices (BMPs), the need for dewatering of groundwater, and discharge of dredged material. The potential to negatively affect water quality is often related to demolition, grading, excavation, and earthmoving activities for landside facilities; and dredging and placement of fill in Redwood Creek, a federal/State jurisdictional and navigable waterway. The impacts during operations

[1] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

[2] City/County Association of Governments of San Mateo County (C/CAG). November 2023. San Mateo Countywide Water Pollution Prevention Program, C.3 Regulated Projects Guide. Available: https://www.flowstobay.org/wp-content/uploads/2024/01/C3-Regulated-Projects-Guide-2023_010524.pdf.

[3] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

are typically associated with new impervious surfaces, the design and effectiveness of new stormwater management infrastructure, negative effects to water quality from shoreline erosion from wakes caused by ferry vessel operations, maintenance dredging, and the potential for flooding hazards due to inundation and future sea level rise.

3.9.3 Existing Conditions

3.9.3.1 Regulatory Setting

The regulatory framework for hydrology and water quality issues is managed by federal, State, and local agencies. The major regulations applicable to hydrology and water quality are described within this section. Federal authority is overseen primarily by the: (1) U.S. Environmental Protection Agency (USEPA); (2) USACE; and (3) FEMA. State authority is overseen by the: (1) California SWRCB; and (2) San Francisco Bay RWQCB. Local and regional agencies with regulations and design requirements for hydrology and water quality include: (1) Redwood City (the City); (2) City/County Association of Governments of San Mateo County (C/CAG) and San Mateo County (the County); and (3) the San Francisco BCDC.

3.9.3.1.1 Federal

Clean Water Act

The CWA of 1972 (33 U.S.C. §1251 et seq.) regulates discharge of pollutants into waters of the United States (WOTUS). Under the CWA, the USEPA has implemented programs for pollution control including water quality criteria recommendations for certain pollutants in surface waters. The CWA makes it unlawful for any pollutant discharge from a point source into navigable waters without a permit issued under the NPDES Program.[4] The major programs under the CWA applicable to the proposed project include: (1) Section 303(d) Water Quality Management Program; (2) Section 304(a) Recommended Ambient Water Quality Criteria; (3) Section 401 Water Quality Certification; (4) Section 402 NPDES; and (5) Section 404 Dredge or Fill Discharge Permit Program, which are discussed below.

Section 303(d) and Total Maximum Daily Loads

The USEPA is authorized to assist states and authorized tribes under CWA Section 303(d) to list impaired waters within their jurisdictions and develop Total Maximum Daily Loads (TMDLs) for the impaired waterbodies. States are required to monitor waterbodies under their jurisdiction to identify those that do not meet water quality standards and the cause of the pollutant impairment. The maximum amount of pollutant allowed in a waterbody is established by a TMDL and provides a planning tool for water quality restoration.[5] The SWRCB prepared the 2024 Final Staff Report for the 2024 California Integrated Report which includes the proposed TMDL required list for the Lower San Francisco Bay in Alameda, San Francisco, and San Mateo counties and this report was submitted to the USEPA for final approval. The 2020-2022 California Integrated Report is the current version approved by the USEPA. The USEPA has partially approved the 2024 303(d) list and disapproves of California's omission of 53 water quality-limited segments (WQLS) including WQLS for benthic community effects that are inconsistent with the State's

[4] U.S. Environmental Protection Agency. No Date. Summary of the Clean Water Act webpage. Available: https://www.epa.gov/laws-regulations/summary-clean-water-act. Accessed April 28, 2025.

[5] California State Water Resources Control Board. No Date. Total Maximum Daily Loads (TMDLs) webpage. Available: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/index.html. Accessed March 19, 2025.

water quality standards and approved alternatives to a TMDL where WQLS still require TMDLs be added to the 2024 list.[6] The 2024 California Integrated Report 303(d) TMDL required list is used for this analysis because it is the latest version and has not changed compared to the 2022 approved Integrated Report. The 2024 303(d) TMDL required list includes the following pollutants: (1) chlordane dichlorodiphenyltrichloroethane (DDT); (2) dieldrin; (3) trash; (4) dioxin compounds (including 2,3,7,8-tetrachlorodibenzo-p-dioxin [TCDD]); (5) furan compounds; and (6) invasive species.[7] The 2024 California Integrated Report is recommending delisting diazinon and nickel from the 303(d) TMDL required list; however, this delisting has not been approved by the USEPA. TMDLs are approved by the USEPA for mercury and polychlorinated biphenyls (PCBs) within the Lower San Francisco Bay and the SWRCB is not recommending delisting these pollutants from the 303(d) list in the 2024 California Integrated Report.

Section 304(a) Recommended Ambient Water Quality Criteria

The USEPA recommends water quality criteria for approximately 150 pollutants to protect aquatic life and human health in surface water. The National Recommended Water Quality Criteria is published and provides guidance to states and tribes for the establishment of water quality standards to aid in controlling discharges of pollutants. Criteria, methods, and tables are provided by USEPA for various uses and benefits including: (1) aquatic life; (2) recreation; (3) human health; (4) organoleptic effects (e.g., taste and odor); (5) nutrient water quality; and (6) biological water quality.[8] The San Francisco Bay RWQCB has established water quality objectives for surface water beneficial uses within their Water Quality Control for the San Francisco Bay Basin (Basin Plan), discussed in **Section 3.9.3.1.2** below.

Section 311 Hazardous Substances Spill Prevention

Section 311 of the CWA address discharge of oil and other hazardous substances into navigable waters. It provides for spill prevention requirements, spill reporting obligations, and spill response planning. Section 311 regulates the prevention and response to accidental releases of oil and hazardous substances into navigable waters, on adjoining shorelines, or affecting natural resources belonging to or managed by the United States. The USCG is responsible for regulations and enforcement related to vessels and marine transportation, and the USEPA is responsible for non-transportation-related facilities and onshore operations.

Section 401 Water Quality Certification

Under the CWA, federal agencies may not issue a permit to conduct activities that may result in any discharge into WOTUS unless a Section 401 Water Quality Certification is issued or certification is waived. States and some tribes have the authority to issue water quality certifications and waivers. Section 401 Water Quality Certification is required for authorization under: (1) CWA Sections 402 and 404 permits issued by the USEPA or the USACE; (2) Federal Energy Regulatory Commission (FERC) licenses for

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[6] U.S. Environmental Protection Agency. December 12, 2024. Letter to Eric Oppenheimer, Executive Director State Water Resources Control Board. Available: https://www.epa.gov/system/files/documents/2024-12/ca-2024-303d-list-epa-partial-approval-disapproval-2024-12-12.pdf.

[7] California State Water Resources Control Board. March 13, 2024. Final Staff Report for the 2024 Integrated Report: Surface Water Quality Assessments to comply with Clean Water Act 303(d) List and 305(b) Report, Appendix A: Recommended 2024 303(d) List of Impaired Waters. Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html.

[8] U.S. Environmental Protection Agency. No Date. National Recommended Water Quality Criteria Tables. Available: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-tables. Accessed April 28, 2025.

hydropower facilities and natural gas pipelines; and (3) Rivers and Harbors Act Section 9 and 10 permits.[9] The San Francisco Bay RWQCB is the state agency with the authority to issue Water Quality Certifications for projects within their jurisdictional region.

Section 402 National Pollutant Discharge Elimination System

The NPDES program regulates discharges of pollutants from a point source into WOTUS through the NPDES permitting program. The NPDES permit provides limits on what can be discharged from project construction and industrial operations based on general requirements of the CWA. Permit conditions require monitoring and reporting, and other provisions that shall be implemented to protect water quality and human health and help the state meet mandatory clean water standards. The NPDES permit specifies the thresholds for pollutant discharges allowed, and best practices needed to protect the waterbody. A point source can include but is not limited to a pipe, ditch, channel, and container including a floating vessel.[10]

Section 404 – Discharge of Dredged or Fill Material

The USACE Regulatory Program includes regulating the discharge of dredged or fill material into WOTUS and wetlands. Under Section 404 of the CWA, a permit is required for construction activities: (1) below the highest tide line of tidal waters; (2) below the ordinary high water mark of any lake, river, or stream; and (3) within coastal and freshwater wetlands. Depending on the type of project, design, and potential effects, authorization from the USACE for either an Individual Permit, Nationwide Permit, or Regional Permit would be required. An Individual Permit is authorized for more complex projects with potentially greater aquatic environmental effects and would include specific conditions to minimize effects. Nationwide Permits are general permits and authorize activities that would result in minimal effects to the aquatic environment and would include general and regional conditions, and/or specific project conditions to minimize effects. Regional Permits are also general permits but are specific to a particular region and type of activity. An aquatic resources and jurisdictional determination from the USACE or other applicable federal agency may be required for some activities and permit authorizations to determine the extent of the federal jurisdiction under the CWA.[11]

The proposed project is within the USACE San Francisco District, which issues navigational dredging permits through the DMMO.[12] The DMMO is an interagency group comprised of representatives from the: (1) USACE San Francisco District; (2) the USEPA; (3) BCDC; (4) San Francisco Bay RWQCB; and (5) State Lands Commission. Federal and State wildlife agencies also participate to provide input to the Long Term Management Strategy for the Placement of Dredged Material in San Francisco Bay (LTMS) program DMMO process. The USACE is currently conducting maintenance dredging within the limits of the USACE channel annually under permits issued by the DMMO agencies. State and local permits are discussed in more detail in **Sections 3.9.3.1.2** and **3.9.3.1.3**. The DMMO cooperatively reviews permits for new

[9] U.S. Environmental Protection Agency. No Date. Overview of CWQ Section 401 Certification webpage. Available: https://www.epa.gov/cwa-401/overview-cwa-section-401-certification. Accessed April 28, 2025.

[10] U.S. Environmental Protection Agency. No Date. NPDES Permit Basics webpage. Available: https://www.epa.gov/npdes/npdes-permit-basics. Accessed April 28, 2025.

[11] U.S. Army Corps of Engineers. No Date. Obtain a Permit webpage. Available: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/. Accessed April 28, 2025.

[12] U.S. Army Corps of Engineers. No Date. Dredging Work Permits webpage. Available: https://www.spn.usace.army.mil/Missions/Dredging-Work-Permits/. Accessed March 19, 2025.

navigational channel dredging, disposal of dredged material, and maintenance dredging under a separate permit from the DMMO agencies. The DMMO permit process for dredging activities includes application submittal and review. Once the permit is issued, the sediment must be characterized to obtain a suitability determination for disposal or beneficial reuse. Once the sediment is determined to be suitable, an episode approval is needed prior to proceeding with dredging activities.[13]

Rivers and Harbors Act

A program to regulate activities affecting navigable waters including wetlands is established by the Rivers and Harbors Act of 1899. Section 10 of the Rivers and Harbors Act regulates the construction of: (1) any wharf; (2) pier; (3) dolphin; (4) boom; (5) weir breakwater; (6) bulkhead; (7) jetty; (8) dock; or (9) other structures in any port, harbor, canal, navigable river, or other WOTUS outside of established harbor lines. A permit must be obtained from the USACE prior to construction in, over, or under a navigable waterway if it would affect the course, location, or condition of the waterway. Dredging, excavation, filling, rechannelization, or other modifications to the waterway are also applicable to Section 10 permitting requirements.[14] Navigable waterways within the USACE San Francisco District are identified in the U.S. Coast Guard List of Navigable Waterways. Navigable waters in the project area and vicinity include San Francisco Bay, Redwood Creek, and Westpoint Slough.[15] The DMMO also reviews dredging permits under Section 10 as described above under the CWA Section 404 process.

Section 13 of the Rivers and Harbors Act also prohibits the discharge of any refuse matter from a ship, barge, floating craft, shore, or wharf into any navigable water of the United States (33 USC Section 407). The USCG is the responsible enforcement agency.

Title 33 Navigation and Navigable Water

Title 33 of the Code of Federal Regulations (CFR) addresses navigation and navigable waters, including the prevention of pollution from ships, in accordance with the Act to Prevent Pollution from Ships (33 USC 1901–1915), which implements the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (referred to as MARPOL 73/78). The regulations cover the prevention of pollution by oil, noxious liquids, harmful substances, and garbage from operational measures, as well as from accidental discharges. The USCG is the responsible enforcement agency.

The Ports and Waterways Safety Act of 1972 (33 USC 1221 et seq.) provides authority for the USCG to increase vessel safety and protect the marine environment in ports, harbors, waterfront areas, and navigable waters. It authorizes vessel traffic services (VTS), controls vessel movement, establishes requirements for vessel operation, and other related port safety controls. The Oil Pollution Act (OPA) of 1990 (33 USC 2701–2761) is the principal statute governing oil spills into the nation's waterways. OPA requires preparation of spill prevention and response plans (Area Contingency Plans [ACPs]) by coastal

[13] LTMS Program Agencies. 2021. Dredger's Handbook - A Testing, Permitting, and Reporting Guide for Maintenance Dredging in the San Francisco Bay. Available: https://www.spn.usace.army.mil/Portals/68/docs/Dredging/guidance/LTMS_DredgersHandbook_ADA_final_020221.pdf?ver=6yYVtXfmDBkYJpSjhruw9g%3d%3d.

[14] U.S. Army Corps of Engineers. No Date. Apply for a Permit, Statutory Authorities, Section 10 of the Rivers and Harbors Act of 1899 webpage. Available: https://www.spn.usace.army.mil/Missions/Regulatory/Permitting/. Accessed May 19, 2024.

[15] U.S. Coast Guard. August 2, 1971. U.S. Coast Guard List of Navigable Waterways. Available: https://www.spn.usace.army.mil/Portals/68/docs/regulatory/1%20-%20Sect10waters.pdf.

facilities, vessels, and certain geographic regions. The ACP maintained by the USCG San Francisco Sector covers three areas: California North Coast, San Francisco Bay and Delta, and Central Coast.[16]

The USCG is the lead federal agency for preparedness and response to oil discharges and hazardous substance releases in navigable waters. The USCG Marine Environmental Protection (MEP) Division has the primary mission of environmental response and preparedness. This includes containment and cleanup of oil discharges and hazardous substances introduced into the navigable WOTUS, as well as preparedness planning.

National Flood Insurance Act

The National Flood Insurance Act of 1968 enabled the establishment of the National Flood Insurance Program (NFIP). FEMA manages the NFIP which provides flood insurance to property owners, renters, and businesses to assist with faster recovery from flood damage. Local communities are required to adopt and enforce regulations for floodplain management to help mitigate effects from flooding.[17] The NFIP (44 CFR 60.3) requires that participating communities adopt adequate floodplain management regulations consistent with federal criteria; otherwise, flood insurance cannot be sold or renewed under the program within the community.[18] Portions of the project area lie within floodplain designation Zone AE, a Special Flood Hazard Area with base flood elevations of 10-feet or 11-feet. Floodplain management criteria under the NFIP mandate the jurisdictional community to require the following measures based on the flood insurance rate map (FIRM) floodplain designations in the project area and project description: (1) permits for proposed construction; (2) developments greater than 5 acres shall include base flood elevation data in their permit applications; (3) maintain the flood carrying capacity of the site; 4) new construction shall be elevated above the base flood level; (5) structures or utilities below the base flood level shall be watertight; and (6) parking structures and storage areas be designed to automatically equalize hydrostatic flood forces on exterior walls and allows entry and exit of flood waters. The proposed civil and structural design must be certified by a registered civil engineer.

The City participates in the NFIP and is also within the San Mateo County Flood and Sea Level Rise Resiliency District. Portions of the site are within the Sea Level Rise Overlay District (areas subject to sea level rise) or the Shallow Groundwater Rise Overlay District (areas subject to shallow groundwater rise). The District developed planning policy guidance to protect and enhance San Francisco Bay shoreline areas of the County including the City.[19]

Executive Order 11988 requires that projects that are constructed, permitted or funded by a federal agency be consistent with standards of the NFIP and avoid development in the floodplain that is incompatible with the natural and beneficial values of the floodplain.

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[16] U.S. Coast Guard. 2022. 2022 Sector San Francisco – Area Contingency Plan (ACP). Available: https://wildlife.ca.gov/OSPR/Contingency/SF-Spill-Contingency-Plan#volumei.

[17] Federal Emergency Management Agency (FEMA). No Date. Flood Insurance webpage. Available: https://www.fema.gov/flood-insurance. Accessed March 19, 2025.

[18] Code of Federal Regulations Title 44 60.3. Amended December 31, 2024. Floodplain management criteria for flood-prone areas. Available: https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-60#p-60.3(c)(14).

[19] San Mateo County Flood and Sea Level Rise Resiliency District. June 2023. Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County. Available: https://www.oneshoreline.org/files/e4b822216/OneShoreline-Planning-Policy-Guidance-Final-June-21-2023-For-Web.pdf.

The owner of a proposed development site may be precluded from the requirement to purchase federal flood insurance with issuance of a Letter of Map Revision-Fill (LOMR-F) with the placement of fill which would raise the site elevation and remove it from the floodplain. A LOMR-F application would be prepared by the applicant and submitted to FEMA. The application must include elevation information certified by a Licensed Land Surveyor or Registered Professional Engineer. The San Mateo County Flood and Sea Level Rise Resilience District, as the NFIP participating entity, must determine that the land and proposed structures would be reasonably safe from flooding prior to approval of the LOMR-F.[20]

Federal Antidegradation Policy

The USEPA developed the federal Antidegradation Policy as part of regulations for water quality standards for surface waters. The policy was developed to protect and maintain the level of water quality needed to protect beneficial uses of surface water and requires states to establish their own antidegradation policy. If water quality levels exceed federal standards, the state must maintain the existing level of quality unless certain findings can be made including: (1) project accommodates important economic or social development; (2) water quality is adequate to protect beneficial uses; and (3) the highest requirements for all new and existing point sources and all cost-effective and reasonable BMPs for nonpoint source control are achieved.[21]

Coastal Zone Management Act

The Coast Zone Management Act was established in 1972 and is administered by NOAA through state and territorial coast management programs. The goal is to balance competing land and water issues including protection of coastal waters.[22] The San Francisco BCDC is approved by NOAA to administer the California Coastal Management Program in the San Francisco Bay, and oversees development for projects and issues consistency determinations under the McAteer-Petris Act.[23]

3.9.3.1.2 State

Porter-Cologne Act

The Porter-Cologne Act governs California water quality regulation and established a program to protect water quality and water beneficial uses. The law applies to surface waters, wetlands, and groundwater including point and nonpoint sources of pollution. Under the law, the quality of all waters of the State shall be protected, activities and factors that may affect water quality must be regulated to attain the highest water quality within reason, and California shall protect water quality in the State from degradation. The San Francisco Bay RWQCB was established along with 8 other regional water boards. Federal CWA provisions are implemented under the Porter-Cologne Act where states have authority, including the NPDES program and Section 401 Water Quality Certification. Regional water boards are

[20] FEMA. No Date. Letter of Map Amendment & Letter of Map Revision – Based on Fill Process webpage. Available: https://www.fema.gov/flood-maps/change-your-flood-zone/loma-lomr-f. Accessed February 26, 2025.

[21] U.S. Environmental Protection Agency. August 1994. Water Quality Standards Handbook, Chapter 4: Antidegradation. Available: https://19january2017snapshot.epa.gov/sites/production/files/2014-10/documents/handbook-chapter4.pdf.

[22] National Oceanic and Atmospheric Administration (NOAA). No Date. Coastal Zone Management Act webpage. Available: https://coast.noaa.gov/czm/act/. Accessed June 10, 2024.

[23] NOAA. No Date. Coastal Zone Management Programs webpage, California. Available: https://coast.noaa.gov/czm/mystate/. Accessed June 10, 2024.

required to prepare a water quality control plan, also known as basin plans, within their individual jurisdictions.[24]

Water Quality Control Plan for the San Francisco Bay Basin

The San Francisco Bay RWQCB developed the Water Quality Control Plan for the San Francisco Basin (Basin Plan)[25] which identifies: (1) beneficial uses of surface waters protected by the RWQCB; (2) water quality objectives to protect beneficial uses; and (3) strategies and time schedules to achieve water quality objectives. Relevant water quality objectives in the Basin Plan include the following, which are applicable to the project based on the beneficial uses of potentially affected surface waters:

- Water quality below bacterial thresholds, specified by type of bacteria and beneficial use, including *Enterococcus* and *E. coli* for water contact recreation (REC-1), Fecal Coliform and Total Coliform for shellfish harvesting (SHELL), and Fecal Coliform for non-contact water recreation (REC-2)[26]
- Biostimulatory substances in concentrations that promote aquatic growth and cause nuisance or adversely affect beneficial uses
- Coloration that would not cause nuisance or adversely affect beneficial uses
- Dissolved oxygen downstream of Carquinez Bridge of 5.0 milligrams per liter (mg/l) minimum
- Floating material including solids, liquids, foams, and scum, in concentrations that do not cause nuisance or adversely affect beneficial uses
- Waters free of toxic substances in concentrations that are lethal or that produce significant alterations in population, community ecology or receiving water biota
- Health and life history characteristics of aquatic organisms which do not differ significantly from those in waters in areas unaffected by controllable water quality factors
- pH that is between 6.5 and 8.5, and controllable water quality factors that would not cause changes greater than 0.5 units in normal ambient pH levels
- Salinity which does not increase total dissolved solids or salinity of waters of the State which adversely affect beneficial uses, particularly fish migration (MIGR) and estuarine habitat (EST)
- Suspended sediment load and discharge rate that would not cause nuisance or adversely affect beneficial uses
- Controllable water quality factors that would not cause a detrimental increase in the concentration of toxic pollutants in sediments or aquatic life
- Settleable substances in concentrations that result in the deposition of material that would not cause nuisance or adversely affect beneficial uses

[24] California State Water Resources Control Board. No Date. Federal, State and Local Laws, Policy and Regulations webpage. Available: https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.html. Accessed March 19, 2025.

[25] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

[26] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Table 3-1. Available: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/tab/tab_3-01.pdf.

- Suspended material in concentrations that would not cause nuisance or adversely affect beneficial uses
- Dissolved sulfide with concentrations below natural background levels
- Taste and odor producing substances in concentrations that do not cause undesirable tastes or odors to fish flesh or other edible projects of aquatic origin, nuisance, or adversely affect beneficial uses
- Maximum temperature of waste discharges that does not exceed the natural temperature of San Francisco Bay or ESTs by more than 20 degrees Fahrenheit; and thermal waste discharges less than 4 degrees Fahrenheit above the natural temperature of the Bay or ESTs
- Cumulative effects of elevated temperature waste discharges that would not increase temperatures
- Toxic substances in concentrations that are not lethal to, or produce other detrimental responses in, aquatic organisms
- Turbidity that does not: cause nuisance or adversely affect beneficial uses; decrease light penetration greater than 10 percent of background levels; increase background levels by more than 10 percent in areas where natural turbidity is greater than 50 nephelometric turbidity units (NTU)
- Copper within 4-day average of criteria continuous concentration of 6.9; and 1-hour average of criteria maximum concentration of 10.8[27]
- Nickel within 4-day average of criteria continuous concentration of 11.9; and 1-hour average criteria maximum concentration of 62.4 (San Francisco Bay only)[28]
- Mercury water quality objectives for San Francisco Bay:[29]
  - Protection of Human Health: 0.2 mg mercury per kilogram (kg) fish tissue. Average wet weight concentration measured in the edible portion of trophic level 3 and trophic level 4 fish[30]
  - Protection of Aquatic Organisms and Wildlife: 0.03 mg mercury per kg fish. Average wet weight concentration measures in whole fish 3-5 centimeters (cm) in length
- Specific chemical constituents within values described in the **Table 3.9-1** below

[27] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Table 3-3A. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

[28] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Table 3-3A. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

[29] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Table 3-3B. Available: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/tab/tab_3-03b.pdf.

[30] Trophic level refers to the position occupied in the food web. Trophic level 3 includes fish that primarily consume phytoplankton and zooplankton and trophic level 4 refers to fish that primarily consume other fish.

Table 3.9-1 Marine[1] Water Quality Objectives for Toxic Pollutants for Surface Waters (all values in micrograms per liter [µg/L])

Compound	4-day Average	1-hour Average	24-hour Average
Arsenic[2, 3]	36	69	-
Cadmium[2, 3]	9.3	42	-
Chromium VI[2, 3]	50	1100	-
Lead[2, 3]	8.1	210	-
Silver[2, 3]	-	1.9	-
Zinc[2, 3]	81	90	-
Polycyclic aromatic hydrocarbons (PAHs)	-	-	15

Source: San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin, Table 3-3. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

Notes:

[1] Marine waters except South Bay south of Dunbarton Bridge where the California Toxics Rule (CTR) applies.

[2] These objectives for metals are expressed in terms of the dissolved fraction of the metal in the water column.

[3] Source: 40 CFR Part 131.38.

The first comprehensive Basin Plan was adopted in 1975 with subsequent major revisions adopted since the 1980s, with the last major revision adopted in 2004. The Basin Plan meets the requirements of the Porter-Cologne Act and establishes water quality standards and strategies including TMDLs for pollutants and water bodies as required by the CWA. The Basin Plan also describes urban runoff management requirements for stormwater discharges managed through their Construction Activity Control Program and Waste Discharge Permitting Program. The San Francisco Bay RWQCB is an active participant in the San Francisco Estuary Partnership which is aimed at protecting and restoring the San Francisco Bay's natural resources through effective and environmentally sound management. A Comprehensive Conservation and Management Plan was developed in 1993 and focuses on many concerns including increased pollutants, freshwater diversion and altered flow regime, dredging and waterway modification and intensified land uses. The Comprehensive Conservation and Management Plan underwent several updates over the past three decades. The current plan, the San Francisco Estuary Blueprint, was adopted in 2022 and includes goals to increase the region's resilience to climate change impacts such as sea level rise, drought, and wildfires; improve wildlife habitat through actions such as wetland restoration; improve water quality through methods such as installing green infrastructure and monitoring pollutant sources; and conduct education and engagement that promotes and encourages environmental stewardship.[31]

The RWQCB partnered with: (1) USACE; (2) USEPA; (3) BCDC; (4) SWRCB; (5) environmental groups; and (6) other entities who are involved with dredging in the Bay to create the Long Term Management Strategy for the Placement of Dredged Material in San Francisco Bay (LTMS). The Basin Plan describes strategies to reduce disposal of polluted and clean dredged material into the Bay. The RWQCB's dredging and dredge sediment disposal policies are described in the Basin Plan. Basin Plan Section 4.20.7 - Water Board Policies on Dredging and Dredge Sediment Disposal,[32] states that disposal of dredged sediment into the Bay should

[31] San Francisco Estuary Partnership. 2022. San Francisco Estuary Blueprint. Available: https://www.sfestuary.org/estuary-blueprint/.

[32] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Chapter 4, Section 4.20.7 - Water Board Policies on Dredging and Dredge Sediment Disposal. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

be reduced and emphasizes that dredged material beneficial re-used should increase. Dredged material can be re-used for wetland restoration projects or levee maintenance and repair or disposed at approved designated locations within the Bay. Relevant policies include the following:

- 4.20.7.2 Material Disposal Restriction: Materials disposed of at approved aquatic dredged material disposal sites shall be restricted to dredged sediment. Disposal of rock, timber, general refuse, and other materials shall be prohibited. Additional specific requirements may be implemented as required based on ongoing site monitoring and adaptive management.
- 4.20.7.3 Volume Targets: Volume targets and restrictions are established for individual disposal sites for the Suisun Bay Channel and San Francisco Bay, and for overall in-Bay disposal.
- 4.20.7.4 Volume Target Implementation: At individual disposal sites, the Water Board may deny water quality certification for any project proposing to place material at a disposal site where the annual or monthly volume target has been exceeded, and for any project that does not provide an adequate alternatives analysis showing there are no practicable alternatives to in-Bay disposal. Projects with an annual average disposal volume of less than 50,000 cubic yards and whose design depth does not exceed 12 feet mean lower low water (MLLW) may apply for an exemption to monthly or annual volume targets. The applicant must demonstrate that the additional burden of using an alternative to an in-Bay disposal placed on the applicant would be inordinate relative to the beneficial uses protected, and the alternatives analysis indicates there are no practical alternatives to in-Bay disposal.
- 4.20.7.5 Use of Testing Guidelines: Project proponents shall use required testing manual and guidelines for sampling and testing of sediment proposed for disposal in WOTUS, in-Bay disposal sites, ocean disposal, and for beneficial reuse projects. Beneficial reuse projects include wetland restoration, levee maintenance, and construction fill.
- 4.20.7.6 Environmental Windows: The Water Board shall restrict dredging or dredge disposal during certain periods to protect beneficial uses and those specified by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act.
- 4.20.7.7 Impacts at Dredge Site: The Water Board may require additional documentation and inspections during dredging activities to ensure impacts are minimized. Water quality certifications or waste discharge requirements may contain additional conditions to address barge overflow and other impacts at dredging sites.

NPDES Permit Programs

The San Francisco Bay RWQCB implements stormwater discharge programs to comply with the CWA and the Porter-Cologne Water Quality Control Act. The Municipal Regional Stormwater Permit (MRP 3) regulates municipal stormwater discharges to surface waters including rivers, streams, lakes, and coastal waters in the regional counties including San Mateo County (Order Number R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008). Projects that would discharge stormwater to surface waters within the County and their member agencies, which include the City, are required to comply with this permit. The MRP 3 regulates construction sites, industrial sites, illegal discharges and illicit connections, new development and municipal operations. The County, as the permittee, and the

City, as a member agency, have jurisdiction over new development and the legal authority to conduct inspections and require compliance and pollution abatement at all industrial and commercial sites if those sites are contributing to polluted stormwater runoff.[33]

Small municipalities and "non-traditional" municipal separate storm sewer systems (MS4) operate under the Statewide Phase II Small MS4 Program. Non-traditional MS4s are designated by the SWRCB or RWQCB and include systems located within or that discharge to a permitted MS4 and pose significant water quality threats. These are storm water systems that serve facilities such as ports, public campuses, military bases, State and federal prison and hospital complexes, and fairgrounds. Non-traditional MS4s are subject to some different requirements from cities and counties because most potential sources of illicit discharges and storm water pollution are associated with activities under their direct operational control, but may also lack legal authority to employ enforcement mechanisms different from the city/county government to implement their stormwater program. The Port is a designated non-traditional MS4 and operates under the Phase II Small MS4 permit which was adopted in July 2013 (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004).[34] The permit is currently in the process of being reissued. An "Informal Draft Small MS4 Permit for Public Comment" was released by the SWRCB in July 2024.[35] Order Number 2013-0001-DWQ identifies that non-traditional MS4s have the same responsibilities as Traditional MS4s to prevent or reduce storm water pollution generated by their own operations, to train employees about pollution prevention/good housekeeping practices, and to identify appropriate measures to prevent or reduce the amount of storm water generated by their operations. They also need to conduct quantitative evaluation of their stormwater program and submit annual reports.

The Construction Stormwater General Permit Order Number 2022-0057-DWQ (Construction General Permit)[36] is a Statewide general permit which regulates stormwater discharges from construction activities involving disturbance of one acre or more of land. Permittees are required to submit a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) prepared by a Qualified SWPPP Developer (QSD) through the Stormwater Multiple Application and Report Tracking System (SMARTS) to request authorization from the San Francisco Bay RWQCB for construction activities under the Construction General Permit. The SWPPP shall describe measures to protect water quality of surface waters during construction including: (1) BMPs for erosion and sediment control, and pollutant controls; (2) spill prevention and control systems; (3) storage of hazardous materials; (4) sanitary waste management; and (5) monitoring and reporting activities for compliance. The SWPPP must be kept on-site during construction and the RWQCB staff may inspect the site at any time during the permitting

[33] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[34] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[35] California State Water Resources Control Board. July 2024. Informal Draft Small MS4 Permit for Public Comment - Order WQ 20XX-00XX, NPDES No. CAS000004 National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/small_ms4_reissuance.html.

[36] California State Water Resources Control Board. 2023. National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order WQ 2022-0057-DWQ NPDES NO. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_order.pdf.

period. Monitoring and reporting shall be conducted by a Qualified SWPPP Practitioner (QSP). Once construction is completed, a Notice of Termination with required documentation shall be completed and submitted to the RWQCB to close the permit. Attachment J of the Construction General Permit describes dewatering requirements that would apply to project construction, which includes requiring that dewatering discharges will not cause or contribute to a violation of any applicable water quality objectives for the receiving waters, analyzing the discharge for pH and turbidity at the discharge location, and notifying the RWQCB of anticipated dewatering discharges.

Non-traditional MS4s, including the Port, must comply with the Construction General Permit during construction activities for their own construction projects. Further, permittees must include contract language ensuring construction operators or contractors comply with the Construction General Permit and implement appropriate BMPs.[37]

State Antidegradation Policy

The SWRCB developed the State Antidegradation Policy Resolution 68-16 Statement of Policy with Respect to Maintaining High Quality of Waters in California.[38] The Antidegradation Policy aims to protect and enhance higher quality water bodies in the State and is consistent with the federal Antidegradation Policy (see **Section 3.9.3.1.1**). The Basin Plan Section 3, Water Quality Objectives, states that "In instances where water quality is better than that prescribed by the objectives, the State Antidegradation Policy applies."[39] Waste discharge requirements are enforced for point and nonpoint source pollutants to meet water quality objectives. Water quality objectives have been developed for many pollutants and are described within the Basin Plan. Strategies and TMDLs have also been established for surface waters determined to be impaired and are also described within the Basin Plan.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), adopted in 2014, provides a framework for regulating groundwater in California. The intent of the law is to strengthen local groundwater management of basins most critical to the State's water needs. SGMA requires basins to be sustainably managed by local public agencies (e.g., counties, cities, and water agencies) who become groundwater sustainability agencies (GSAs). The primary purpose of the GSAs is to develop and implement a Groundwater Sustainability Plan for basins designated as high and medium priority to achieve long-term groundwater sustainability. Basin priority is determined based on 8 different components: (1) population, (2) population growth, (3) public water supply wells, (4) total wells, (5) irrigated acres, (6) groundwater reliance, (7) impacts, (8) habitat, and other information.

[37] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[38] California State Water Resources Control Board. October 28, 1968. Resolution 68-16 Statement of Policy with Respect to Maintaining High Quality of Waters in California. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf.

[39] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Section 3 - Water Quality Objectives. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

The project area is near the eastern edge of the San Mateo Plain Subbasin (DWR Basin number 2-009.03) of the Santa Clara Valley Basin.[40] The groundwater basin received low priority points (a range of 0 to 3 points) for most of the 8 factors except population. Thus, this basin is considered very low priority under SGMA according to the California Department of Water Resources, and is therefore not required to have a Groundwater Sustainability Plan.[41, 42]

California Fish and Game Code Section 1602

Section 1602 of the California Fish and Game Code, administered by the California Department of Fish and Wildlife (CDFW), mandates that it is unlawful for any entity to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" unless the CDFW receives written notification regarding the activity in the manner prescribed by the CDFW. Streambed alteration must be permitted by CDFW through a Lake or Streambed Alteration Agreement.

California State Oil Spill Contingency Plan

The California State Oil Spill Contingency Plan[43] is an independent document regarding the State's response to discharges of oil to all marine or inland surface waterways of California, and for oil spills to land. All State and local agencies must carry out spill response activities consistent with this Plan and other applicable federal, State, or local spill response plans.

Office of Spill Prevention and Response

The CDFW's Office of Spill Prevention and Response (OSPR) leads the State's response to oil spills in for all surface waters at risk of oil spills from any source. It is in charge of oil spill prevention, preparedness responses, and natural resources restoration and collaborates with the USCG, and other organizations during drills and spill responses, including BCDC in the event of oil spill incidents in the BCDC's jurisdiction.

California Hazardous Waste Control Law

The California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5, Article 2) is administered by the California Environmental Protection Agency (CalEPA) to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than federal Resource Conservation and Recovery Act (RCRA) (42 USC Sections 6901–6987), until the USEPA approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the State and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes

[40] California Department of Water Resources. 2019. Groundwater Basin Boundary Assessment Tool. Available: Groundwater Basin Boundary Assessment Tool – Groundwater Exchange. Accessed June 29, 2025.

[41] California Department of Water Resources. No Date. Groundwater Sustainability Plans webpage. Available: https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Groundwater-Sustainability-Plans. Accessed April 28, 2025.

[42] California Department of Water Resources. No Date. SGMA Basin Prioritization Dashboard. Available: https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed June 29, 2025.

[43] California Department of Fish and Wildlife, Office of Spill Prevention and Response. January 2023. California State Oil Spill Contingency Plan. Available: https://www.nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=172767&inline.

management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Sea Level Rise Planning and Adaptation

Senate Bill 272, Section 2 was adopted in 2023 and added Sections 30985-30985.8 as division 20.6.9 of the California Public Resources Code. These Sections require local governments within the coastal zone, including the jurisdiction of the San Francisco BCDC, to develop a sea level rise plan. The plan should include shoreline subregional resiliency plans using best available science, a vulnerability assessment, adaptation strategies and recommended projects, identification of lead planning and implementation agencies, and a timeline for updates to the plan. All local governments must comply with the requirements for sea level rise planning.[44]

Several State policies preceded the adoption of Senate Bill 272 Section 2, including: (1) Governor Brown's Executive Order B-30-15 requiring State agencies to consider climate change in planning and investment decisions; (2) Senate Bill 379 requiring local agencies to include climate adaptation and resiliency strategies into their General Plans; and (3) Senate Bill 246 establishing the Governor's Office of Land Use and Climate Innovation (formerly Governor's Office of Planning and Research) Integrated Climate Adaptation and Resiliency Program. Subsequently, the California Natural Resources Agency and the California Ocean Protection Council prepared the State of California Sea-Level Rise Guidance 2018 Update. The 2018 Update, using best available science to support planning for sea level rise, provides sea level rise projections, guidance on how to select projections, planning and adaptation recommendations, and tools to visualize sea level rise spatially.[45]

3.9.3.1.3 Regional/Local

San Francisco Bay Conservation and Development Commission and McAteer-Petris Act

The McAteer-Petris Act enacted in 1965 (California Government Code Sections 66600 – 66694) established the BCDC and required the BCDC to prepare a plan for the conservation of San Francisco Bay and the development of its shoreline. The McAteer-Petris Act directs the BCDC to review permit applications to: (1) place fill; (2) extract material; or (3) change use of land, water, or structure within the BCDC jurisdiction in conformity with the San Francisco Bay Plan (Bay Plan).[46] The Bay Plan includes findings and policies related to: (1) water quality; (2) safety of fills; (3) dredging; (4) climate change; and (5) shoreline protection. The BCDC has the authority to approve or deny permit requests for bay filling and dredging including the placement of floating structures, piers and pilings, and shoreline development. The different types of permits include: (1) major permits for large new projects; (2) minor permit for minor repairs or improvements; and (3) abbreviated regionwide permits or regionwide permits both for routine

[44] San Francisco Bay Conservation and Development Commission (BCDC). May 2024. Program Changes to the San Francisco BCDC Coastal Management Program (BCDC-2024-2), Adoption of California Public Resources Code Sections 30985, 30985.2, 20984.4, and 30985.8. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2024/06/amendments-to-public-resources-Code-SB-272-2024-2-CMP.pdf.

[45] California Natural Resources Agency and California Ocean Protection Council. 2018. State of California Sea-Level Rise Guidance, 2018 Update. Available: https://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf.

[46] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

construction.[47] Under the McAteer-Petris Act, the BCDC is also required to update the Bay Plan periodically through a continuing review program. In addition to the Bay Plan, development within the Port of Redwood City must also comply with the San Francisco Bay Area Seaport Plan (Seaport Plan) which designates port priority use areas and information about commercial, recreation, and ferry terminal development. One of the goals of the Seaport Plan is to minimize adverse environmental impacts associated with development and operation of commercial and ferry terminal uses.[48] Further discussion of the policies of the Bay Plan and Seaport Plan applicable to the proposed project is provided in Section 3.10, Land Use. The BCDC is implementing a regional strategy for sea level rise around the Bay and developed the Bay Adapt program which provides guiding principles and tools for planning for Bay Area adaptation to sea level rise.[49]

As stated above, the BCDC also oversees development for projects and issues Coastal Zone Management Act consistency determinations under the McAteer-Petris Act. Federal agencies issuing a permit for a project within the coastal zone shall require the permittee to comply with the Coastal Zone Management Act and applicable coastal management program.

The BCDC, in coordination with the Ocean Protection Council and the California State Coastal Conservancy, adopted the Regional Shoreline Adaptation Plan in 2024 to comply with Senate Bill 272 described above. The plan provides a framework for local governments to protect communities along the shoreline of the San Francisco Bay.[50] The plan includes subregional shoreline adaptation plan guidelines for local governments to develop their own plans for protection of their shoreline communities.

San Francisco Estuary Blueprint

The San Francisco Estuary Blueprint,[51] adopted in 2022, is a collaborative agreement about actions and goals for restoring the health of the estuary. Although the blueprint does not have regulatory authority, it provides actions to be carried out over the next five years and longer-term term goals to create a healthy, resilient estuary by 2050. Longer-term goals include increasing the estuary's resilience to climate change impacts such as sea level rise, drought, and wildfires; improving wildlife habitat through actions such as wetland restoration; improving water quality through methods such as installing green infrastructure and monitoring pollutant sources; and conducting education and engagement that promotes and encourages environmental stewardship. There are 25 specific actions identified in the blueprint to help achieve these goals, such as implementing climate adaptation projects, implementing a Wetlands Regional Monitoring Program, and managing invasive species.

[47] BCDC. No Date. Check if you need a BCDC permit webpage. Available: https://www.bcdc.ca.gov/programs/permits/check-if-you-need-a-bcdc-permit/. Accessed March 19, 2025.
[48] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.
[49] BCDC. No Date. About Bay Adapt webpage. Available: https://www.bayadapt.org/about/. Accessed February 17, 2025.
[50] BCDC. December 2024. Regional Shoreline Adaptation Plan: One Bay Vision, Strategic Regional Priorities, and Subregional Shoreline Adaptation Plan Guidelines. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2024/12/regional-shoreline-adaptation-plan-spreads.pdf.
[51] San Francisco Estuary Partnership. 2022. San Francisco Estuary Blueprint. Available: https://www.sfestuary.org/estuary-blueprint/.

City/County Association of Governments of San Mateo County and San Mateo County

San Mateo Countywide Water Pollution Prevention Program

The City is a member agency of the Countywide Water Pollution Prevention Program, also known as Flows To Bay.[52] The Program is a partnership of the municipal governments within the County, which share the NPDES MRP 3 Permit described above in **Section 3.9.3.1.2** under the NPDES Permit Programs. The Countywide Program focuses on compliance under the MRP 3 Permit and regulated discharges to minimize pollution into the San Francisco Bay and the ocean. Several subcommittees have been developed under the Countywide Program including: (1) commercial, industrial, and illicit discharges; (2) municipal maintenance, new development/green infrastructure; (3) parks/integrated pest management; (4) public information and participation; (5) stormwater; (6) trash control; and (7) watershed assessment and monitoring. Management decisions consider a project's compliance with the MRP 3 Permit and potential impacts to water quality and measures to minimize impacts. Watershed assessment and monitoring is a goal of the Program to characterize surface water functions, health and water quality conditions of stormwater receiving waters, and evaluate potential impacts. The County delegates authority to the City as the member agency which requires the implementation of appropriate BMPs to address pollutant sources for new development in order to remain in compliance with the MRP 3 Permit. The County and the City require developers that create or replace greater than or equal to 5,000 square feet of impervious surface to submit project documents to the local permitting agency in accordance with the MRP 3.0 C.3-C.6 Development Review Checklist to determine if stormwater control requirements apply to the project and to identify appropriate controls.[53]

San Mateo County Flood and Sea Level Rise Resilience District

The County, as part of their Sea Change SMC [San Mateo County] Initiative to increase the County's resilience, published the Sea Level Rise Vulnerability Assessment Final Report (Vulnerability Assessment) in 2018.[54] The goal of the Initiative is to provide information about risks and vulnerabilities from sea level rise to cities and other asset managers, collaborate with cities to develop a planning framework to address sea level rise, raise awareness, conduct research, and eventually incorporate sea level rise into flood risk protection and stormwater efforts. The Vulnerability Assessment made several findings related to built assets, including seaports, and classified the Port of Redwood City as a Risk Class 3 for buildings and other structures. Under Risk Class 3, the failure of hotels, ports, and roads could pose a substantial risk to human health and has the potential to substantially impact the economy and/or cause mass disruption of daily activity. For facilities that handle, store, or use hazardous fuels or other hazardous chemicals or waste, Risk Class 3 facilities could pose a threat to the public if released into the environment. Strategies and protection measures are described in the Vulnerability Assessment to assist cities and developers when

[52] City/County Association of Governments of San Mateo County (C/CAG). 2025. flowstobay San Mateo Countywide Water Pollution Prevention Program website, "About Flows to Bay" webpage. Available: https://flowstobay.org/about-flows-to-bay/. Accessed February 17, 2025.

[53] C/CAG. flowstobay San Mateo Countywide Water Pollution Prevention Program website. January 2023. Stormwater Quality Control Requirements Information for Developers, Builders, and Project Applicants. Available: https://www.flowstobay.org/wp-content/uploads/2023/04/SMCWPPP-MRP-3.0-C.3-Flyer_final.pdf.

[54] County of San Mateo. March 2018. County of San Mateo Sea Level Rise Vulnerability Assessment, Final Report. Available: https://www.smcsustainability.org/wp-content/uploads/2018-03-12_SLR_VA_Report_2.2018_WEB_FINAL.pdf.

planning projects that could be affected by sea level rise.[55] The San Mateo County Flood and Sea Level Rise Resilience District published the Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County in 2023 which describes: (1) land use regulations and allowable uses; (2) development standards; (3) performance standards; and (4) additional findings for the sea level rise overlay district and the shallow groundwater rise overlay districts.[56]

San Mateo County is a member agency of the San Francisquito Creek Joint Powers Authority (SFCJPA) formed in 1999 to lead flood risk mitigation projects along San Francisquito Creek and the Bay. The San Mateo County Flooding and Sea Level Resiliency District is a member agency of SFCJPA. SFCJPA's SAFER Bay Project is a strategy to advance flood protection, ecosystems, and recreation along San Franciso Bay. The proposed SAFER Bay Project will protect and restore critical habitat, provide community resilience from sea level rise, and improve recreation access. The proposed SAFER Bay Project area boundary is in close proximity to the Ferry Terminal project site (approximately 1.2 mile to the southeast). A Draft Environmental Impact Report for the SAFER Bay Project is expected to be released in 2025.[57]

The San Mateo County Flood and Sea Level Rise Resilience District, as the NFIP participating entity, must determine that the land and proposed structures would be reasonably safe from flooding prior to approval of the LOMR-F by FEMA, as described above in **Section 3.9.3.1.1** under the federal National Flood Insurance Act.

Redwood City

General Plan

The Redwood City General Plan Public Safety Element[58] describes sea level rise as an effect from climate change that would increase the City's vulnerability to 100-year flood events along the City's shoreline. Flood risk mapping within the Public Safety Element depicts potential damage impacts to the built environment. The following programs are included in the Public Safety Element to protect new development from potential impacts due to flooding and sea level rise:

- Program PS-6.5a: Amend Redwood City building codes and other development documents to ensure new development's site planning, building design, and construction materials accommodate increased precipitation, flooding, extreme heat events, severe winds, and prolonged drought. Periodically update the codes and documents to ensure compliance with best practices. Best practices include but are not limited to:
  - Raising floor levels and minimum flood construction levels.

[55] County of San Mateo. March 2018. County of San Mateo Sea Level Rise Vulnerability Assessment, Final Report. Available: https://www.smcsustainability.org/wp-content/uploads/2018-03-12_SLR_VA_Report_2.2018_WEB_FINAL.pdf.

[56] San Mateo County Flood and Sea Level Rise Resiliency District. June 2023. Planning Policy Guidance to Protect and Enhance Bay Shoreline Areas of San Mateo County. Available: https://www.oneshoreline.org/files/e4b822216/OneShoreline-Planning-Policy-Guidance-Final-June-21-2023-For-Web.pdf.

[57] San Francisquito Creek Joint Powers Authority. November 19, 2024. The SAFER Bay Project: Strategy to Advance Flood Protection, Ecosystems and Recreation along San Francisco Bay. Available: https://www.sfcjpa.org/safer-bay-project. Accessed September 5, 2025.

[58] City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

  - Incorporating adaptive measures, such as shading, adequate ventilation and green or white roofs.
  - Insulating and improving the air tightness of buildings to increase reliance against extreme cold and heat.
  - Using passive cooling and energy efficiency design requirements or allowing manual overrides (e.g., openable windows) when mechanical elements are in place will increase resilience, especially in the event of power outages.

- Program PS-6.5b: Amend the Redwood City municipal code and other development documents to require project applicants to identify natural infrastructure that may be used for adaptation purposes to reduce the effects of climate change hazards on the proposed project. Identification of potential climate change adaptation measures should be required as part of the initial plan set review stage of the development review process. Project proposals should include analysis of the feasibility of integrating natural infrastructure before proposing alternative measures.
- Program PS-27: New Development Protected from Flooding. Require new development to be designed to provide protection from potential impacts of flooding resulting from significant flood events, consistent with evolving State and federal guidelines and as directed by the City Engineer, and to consider possible sea level rises.

The Redwood City General Plan Natural Resources Element[59] includes the following policies for protection of natural resources related to hydrology/and water quality:

- NR-26: Creek Enhancement Ordinance. To minimize unfiltered stormwater runoff, reduce flooding risks, and preserve creek areas for natural restoration, establish a Creek Enhancement Ordinance that will allow the City to: enforce protection of reasonable setback areas along existing creeks and streams from encroachment by buildings, pavement, or other impervious surfaces, and other inappropriate uses; and create adequate room for maintenance and potential public recreational use.
- NR-28: NPDES. Continue to comply with all provisions of the NPDES permit, and support regional efforts by the San Francisco Bay RWQCB to improve and protect water quality.
- NR-30: SMCWPPP. Implement the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) performance standards in the protection of creeks, streams, and watersheds.
- NR-31: Water Quality Improvement. Require the integration of water quality protection/improvement techniques (e.g., use of vegetated swales or landscaping for water drainage along streets and for expansive parking lots) for new development. As feasible, incorporate water quality techniques when completing street improvements.

[59] City of Redwood City. October 2010. Redwood City General Plan, Natural Resources Element (most recently amended February 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Redwood City Municipal Code

Stormwater Management and Discharge Control Program

The Redwood City Code, Chapter 27A – Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95)[60] sets forth the Redwood City Stormwater Management and Discharge Control Program. The Program discusses exempted activities, illicit discharge prohibitions, broad watercourse protection objectives, green infrastructure, and BMPs for new and redevelopment projects.

Stormwater discharge to any creek, ditch, natural stormwater drainage channel, storm drainage easement or public utility easement in the City may only be implemented with a permit. The regulations also refer to the NPDES regulations for stormwater protection and treatment. As a member agency to the San Mateo Countywide Water Pollution Prevention Program, the City manages NPDES permit compliance and the development review process that requires developers to prepare the C.3 Regulated Projects Checklist under the San Francisco Bay Region MRP 3 program to be authorized under the MRP 3 Permit. Large project developers are required to comply with Section C.3 New Development and Redevelopment and Section C.6 Construction Site Control requirements to prevent increases in stormwater runoff, and include stormwater control measures including: (1) source control; (2) site design; and (3) stormwater treatment measures into the design.[61] The City is authorized to conduct construction inspections and close-out inspections after construction. The project owner shall submit monitoring and maintenance activities reports of annual operations to the City as required by the conditions of approval.[62] As part of the Stormwater Management and Discharge Control Program, the City provides on their website the Local Source Control Measures List[63] and other guidelines for developers when planning the design of their projects.

Engineering Standards

The City's adopted Engineering Standards[64] consist of three volumes: Volume I - Standard Technical Specifications; Volume II – Standard Details; and Volume III – Design Criteria. Volume I includes requirements for stormwater pollution prevention during work activities, including control of the worksite and constructing systems to prevent contaminants from entering the stormwater system (Section 02 1330). Volume II includes standard specifications for construction in the public right-of-way, such as streets, drainage facilities and other utilities, and landscaping. Volume III addresses design criteria for features such as street design and storm drain design. Part XII Appendix R2 includes a development review checklist for determining if stormwater control requirements apply to the project and to identify appropriate controls.

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[60] City of Redwood City. Municipal Code, Chapter 27A – Stormwater Management and Discharge Control Program. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH27ASTMADICOPR.

[61] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[62] C/CAG. November 2023. San Mateo Countywide Water Pollution Prevention Program, C.3 Regulated Projects Guide. Available: https://www.flowstobay.org/wp-content/uploads/2024/01/C3-Regulated-Projects-Guide-2023_010524.pdf.

[63] City of Redwood City. February 10, 2005. City of Redwood City, Stormwater Pollution Prevention Program - Local Source Control Measures List. Available: https://www.redwoodcity.org/home/showpublisheddocument/1956/635730863930170000.

[64] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

Sea Level Rise Vulnerability and Adaptation Planning Initiative

In response to San Mateo County's Sea Change SMC Initiative and associated documents, the City prepared a Sea-level Rise Vulnerability and Adaptation Planning Study[65] to assess its vulnerability to flooding in the future due to sea level rise, and develop conceptual alternatives to mitigate for the risk. Redwood Creek is a tidal water body that is influenced by the Bay, and sea level rise could have coast flood effects to areas of the City that are adjacent to Redwood Creek upstream of the Bay. Proposed strategies to mitigate for sea level rise are provided in the Study by planning area. The project site is within the Reach 3 Downtown East and Seaport planning area.[66] Mitigation strategies should be considered by developers when planning and designing facilities. The Sea-level Rise Vulnerability and Adaptation Planning Study is further discussed in **Section 3.9.3.2.4** below. The adaptation approaches described in the City's planning study are consistent with planning guidance from the State and County.

3.9.3.2 Environmental Setting

3.9.3.2.1 Background and Conditions

The baseline for characterizing the existing hydrology and water quality setting is the conditions at the beginning of proposed project operation that consist of a cleared graded project site with a stormwater conveyance pipeline and filled stormwater ditch on the eastern edge of the site.

The City has an average annual maximum temperature of 71 degrees Fahrenheit (F) and an average minimum temperature of 47.1 degrees F. The average annual total precipitation is 19.16 inches of rain.[67]

The San Francisco Bay, Redwood City Harbor Channel to San Francisco Bay (approximately five miles), Redwood Creek from where it crosses under Veterans Boulevard downstream to the channel, and Westpoint Slough are designated as navigable waterways under the Rivers and Harbors Act.[68] The deep water channel in Redwood Creek provides a navigation channel that has a depth sufficient to allow deep draft vessels to access Port facilities and includes two turning basins. Turning Basin #1 is closest to the project site and Turning Basin #2 is an inner basin closer to the harbor. The USACE conducts maintenance dredging of the deep water harbor channel and the turning basins every year to an authorized depth of -30 feet MLLW. Redwood Creek and Westpoint Slough are tidal waters and federally jurisdictional under the federal CWA and State jurisdictional under the California Porter-Cologne Act. Bair Island is across Redwood Creek to the west and Greco Island is across Westpoint Slough to the northeast.

Sediment sampling and analysis was conducted for proposed dredging activity south of the project site at Wharves 1 and 4 in the Port of Redwood City and unrelated to the ferry terminal project. The evaluation of sediment quality for beneficial reuse or disposal in the Bay is presented in the *Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City*,

[65] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

[66] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

[67] Western Regional Climate Center. No Date. Redwood City, California (047339), Period of Record Monthly Climate Summary: 04/01/1906 to 06/10/2016. Available: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7339. Accessed March 5, 2025.

[68] U.S. Coast Guard. August 2, 1971. U.S. Coast Guard List of Navigable Waterways. Available: https://www.spn.usace.army.mil/Portals/68/docs/regulatory/1%20-%20Sect10waters.pdf.

prepared by Haley & Aldrich for the Port of Redwood City in 2024.[69] The Haley & Aldrich Report provides information to understand the existing sediment conditions near the ferry terminal site and provides data to inform the impact evaluation for the proposed project.

The project site is a graded flat site of hard packed dirt, with a shoreline that is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. There are some vegetated areas, primarily along the edges of the project site and the shoreline. The abandoned Shell Unloading Wharf that extends parallel from the shore into Westpoint Slough is at the northern edge of the site. As discussed in Section 3.8, Hazards and Hazardous Materials, limited concentrations of petroleum hydrocarbons (22 to 35 parts per million) were detected in soil samples collected from the project site in two of the 16 borings.[70] The location of the borings was not identified.

3.9.3.2.2 Hydrology

The project site is on the shore of the Lower San Francisco Bay in the City at the confluence of Redwood Creek (Redwood City Harbor Channel) and Westpoint Slough, as shown on **Figure 3.9-1**. The project site was tidally-influenced coastal saltmarsh within the estuary prior to development. The nine-acre project site and existing CEMEX marine terminal property to the south contain some existing stormwater controls that divert, infiltrate, and reuse stormwater. The existing drainage system includes a conveyance pipeline within a filled stormwater ditch along the eastern edge of the project site that outlets to a tide gate that drains into Westpoint Slough. The tide gate has a one-way flap that is approximately 80 feet from its entrance to Westpoint Slough. Stormwater flows from an open ditch on the CEMEX property to an underground 20-inch pipe, to the tide gate, and into Westpoint Slough. The project site contains some vegetated areas, primarily along the edges. Patches of tidal vegetation are located along the edges of the site. The shoreline around the project site is largely armored with broken concrete, riprap, and other debris that may have been used to stabilize the fill slope. Bair and Greco islands are estuarine and marine wetlands according to the USFWS National Wetlands Inventory.[71]

[69] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

[70] Port of Redwood City. November 2001. Mitigated Negative Declaration for the RMC Pacific Materials Construction Materials Park. Prepared by Science Applications International Corporation.

[71] U.S. Fish and Wildlife Service. National Wetlands Inventory Mapper. Available: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed April 28, 2025.



Figure 3.9-1

Port of Redwood City Ferry Terminal Project

HYDROLOGIC SETTING

Surface Water Conditions

San Francisco Bay is defined as an enclosed bay; therefore, the California Ocean Plan, the State's water quality control plan for Ocean Waters that was first adopted in 1972,[72] is not applicable to water quality discharges into the San Francisco Bay or its tributaries. The project area is required to meet water quality objectives (see **Section 3.9.3.1.2**) for receiving waters including Redwood Creek, Westpoint Slough, and San Francisco Bay set forth in the San Francisco Bay Basin Plan. The San Francisco Bay RWQCB has established surface water beneficial uses within their Basin Plan.[73] The beneficial uses for Redwood Creek, which is identified as Redwood Slough in the Basin Plan, include: (1) EST; (2) Preservation of Rare and Endangered Species (RARE); (3) Wildlife Habitat (WILD); (4) REC-1; (5) REC-2; and (6) Navigation (NAV). The beneficial uses identified for Westpoint Slough are the same as Redwood Creek except NAV is not a beneficial use. The beneficial uses identified for the San Francisco Bay include: (1) Industrial Service Supply (IND); (2) Commercial and Sport Fishing (COMM); (3) SHELL; (4) EST; (5) MIGR; (6) RARE; (7) Fish Spawning Habitat (SPAWN); (8) WILD; (9) REC-1; (10) REC-2; and (11) NAV. Bair and Greco Islands saltwater wetlands beneficial uses include: (1) EST; (2) RARE; (3) REC-1; (4) REC-2; and (5) WILD.

The Lower San Francisco Bay 303(d) TMDL required list includes the following pollutants: (1) chlordane; (2) DDT; (3) dieldrin; (4) trash; (5) mercury; (6) PCBs; (7) dioxin compounds (including 2,3,7,8-TCDD); (8) furan compounds; (9) invasive species; (10) PCBs (dioxin-like); and (11) selenium.[74]

Groundwater Conditions

The project site is near the eastern edge of the San Mateo Plain Subbasin (California Department of Water Resources (DWR) Basin number 2-009.03) of the Santa Clara Valley Basin.[75] This basin is considered very low priority under the SGMA according to the DWR, and is not required to have a Groundwater Sustainability Plan.[76] The basin has shallow groundwater levels and it is not heavily used as a source for potable water, and no known municipal or domestic water supply wells are within the vicinity of the project area. Additionally, according to the 2018 San Mateo Plain Groundwater Basin Assessment,[77] the basin is in a relatively full and stable condition.[78] Based on a previous geotechnical study of the project site conducted in 2020, groundwater was encountered ranging from just below the ground surface to eight and a half feet below the ground surface. It was anticipated that the groundwater elevation

[72] California State Water Resources Control Board. 2005. California Ocean Plan Triennial Review and Work Plan. 2005-2008. Available: https://water.waterboards.ca.gov/water_issues/programs/ocean/docs/trirev/trirev20052008.pdf.

[73] San Francisco Bay Regional Water Quality Control Board. Updated through December 29, 2025. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html#basinplan.

[74] California State Water Resources Control Board. March 13, 2024. Final Staff Report for the 2024 Integrated Report: Surface Water Quality Assessments to comply with Clean Water Act 303(d) List and 305(b) Report, Appendix A: Recommended 2024 303(d) List of Impaired Waters. Available: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html.

[75] California Department of Water Resources. 2019. Groundwater Basin Boundary Assessment Tool. Available: Groundwater Basin Boundary Assessment Tool – Groundwater Exchange. Accessed June 29, 2025.

[76] California Department of Water Resources. No Date. Groundwater Sustainability Plans webpage. Available: https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Groundwater-Sustainability-Plans. Accessed April 28, 2025.

[77] County of San Mateo. July 2018. San Mateo Plain Groundwater Basin Assessment, Executive Summary. Available: https://www.smcsustainability.org/wp-content/uploads/filebase/energy-water/groundwater/SMP-Groundwater-Basin-Assessment_July-2018.pdf.

[78] San Francisco Bay Regional Water Quality Control Board. September 13, 2021. San Mateo Plain Groundwater Subbasin (2-009.03). Available: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/groundwater/BasinLinks/San_Mateo_Plain_Basin.pdf.

coincides with the water level in the Bay shipping channel, and would likely fluctuate because of tidal variation, precipitation, and other factors.[79]

3.9.3.2.3 100-Year Floodplain and Tsunami Zone Conditions

The project site is depicted on the Flood Insurance Rate Map (FIRM) 06081C0189F dated April 5, 2019.[80] The eastern portion of the project site and other portions of the project area are in Zone AE, a Special Flood Hazard Area (**Figure 3.9-2**), which is subject to inundation by the 100-year flood event. The western portion of the project site is in Zone X, an area of minimal flood hazard. The area east of the 9-acre parcel which includes Seaport Boulevard and the railroad tracks is with Zone X, an area which is subject to inundation by the 500-year flood event. The Redwood City General Plan Public Safety Element also depicts the project area as being partially within the one-percent-annual-chance flood event zone.[81]

The project site is in a tsunami hazard area according to the California Department of Conservation.[82] The County is in the process of updating their 2021 Multijurisdictional Local Hazard Mitigation Plan[83] which includes the City as an area benefitting from the plan. Within the plan, tsunami is an identified hazard of concern for coastal areas in the City. The Redwood City General Plan Public Safety Element considers the potential risk of tsunami generated waves to be low because of the City's location 10 miles east of the Pacific Ocean shoreline and outside of the County Tsunami Evacuation Planning Area.[84]

3.9.3.2.4 Sea Level Rise Vulnerability

A Sea-Level Rise Vulnerability and Adaptation Planning Study (Sea-Level Rise Study) was prepared for Redwood City in 2024.[85] The Sea-Level Rise Study organizes the Redwood City shoreline into risk area "reaches" and identifies the major sources of flooding in each reach and flood vulnerabilities for various sea level rise scenarios. The Sea-Level Rise Study also outlines priority adaptation strategies to address the flood hazards.

[79] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

[80] FEMA National Flood Insurance Program. April 2019. Flood Insurance Rate Map 06081CO189F. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/fema-preliminary-flood-insurance-rate-maps.

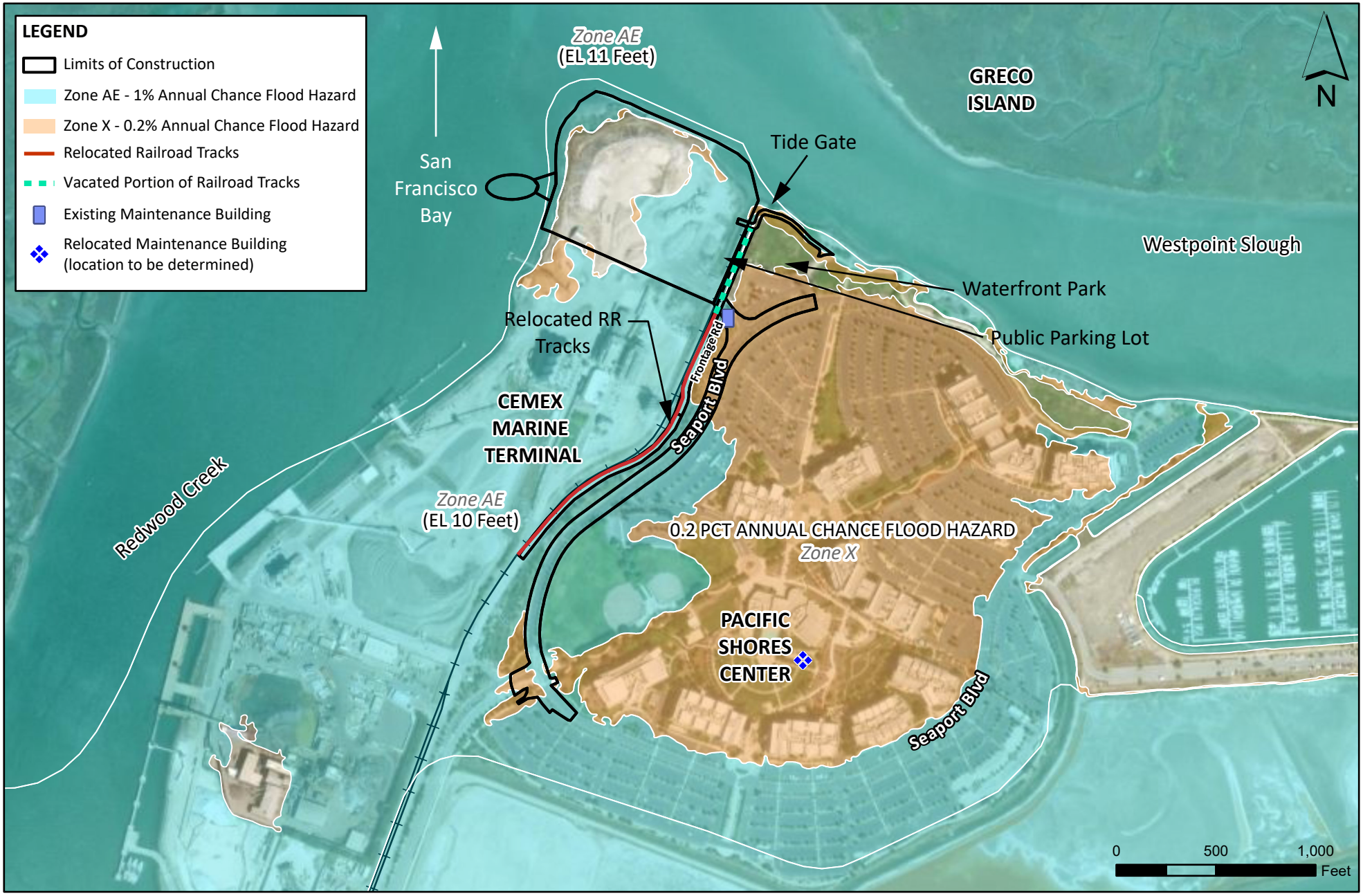
[81] City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[82] California Department of Conservation. No Date. California Tsunami Maps website, San Mateo County Tsunami Hazard Areas. Available: https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed March 19, 2025.

[83] County of San Mateo. October 2021. 2021 Multijurisdictional Local Hazard Mitigation Plan. Prepared by Tetra Tech.

[84] City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Page PS-38. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[85] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.



Source: FEMA National Flood Insurance Program, 2019

Figure 3.9.2

Port of Redwood City Ferry Terminal Project

FLOODPLAIN MAP

To assess the risk, the Sea-Level Rise Study provides an analysis of the expected change to the San Francisco Bay with sea level rise for various decades through 2100 relative to sea level in 2000. The low risk aversion estimate or "likely range" would have a 66-percent chance of occurrence, and the estimated medium-high risk aversion range would have only a 0.5-percent chance of exceedance, meaning sea level rise above the estimated medium-high risk aversion range is unlikely to occur. **Table 3.9-2** provides sea level rise projections for San Francisco,[86] in feet above the 2000 baseline.

Table 3.9-2 Sea Level Rise Projections for San Francisco Above 2000 Baseline

Scenario	2030 in feet	2050 in feet	2070 in feet	2100 in feet
66% Likely Occurrence: Low Risk Aversion	0.5	1.1	1.5 – 1.9	2.4 – 3.4
0.5% Chance of Exceedance: Medium-High Risk Aversion	0.8	1.9	3.1 – 3.5	5.6 – 6.9

Source: City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Table 3. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

The project area is within risk area Reach 3: Downtown East & Seaport, which includes the upstream end of Redwood Creek's east bank. The Sea-Level Rise Study characterizes the Port as having both un-engineered and engineered embankments, with portions protected by a metal bulkhead and berms. This area currently floods at low points along the shoreline; however, most of the existing infrastructure is floodproofed and infrastructure is identified as being able to withstand brief periods of inundation. The Sea-Level Rise Study identifies that the Port area is not particularly vulnerable currently but may require adaptation in the future.

Several strategies were provided in the Sea-Level Rise Study for the Port area to prevent flooding during a present day 100-year flood event and that have capacity for a 100-year flood with a 3.5-foot sea level rise and emergent groundwater. The primary strategy identified for Reach 3 is to raise the shoreline elevations from the existing height to a height of 16-17 feet North American Vertical Datum (NAVD) of 1988.[87] Additional strategies considered include: (1) stormwater infrastructure improvement; (2) maintaining marshes through monitoring and restoration; and (3) monitoring changes in the groundwater table over time.[88]

3.9.4 Thresholds of Significance

The proposed project would result in significant impacts associated with hydrology and water quality if it would:

Impact 3.9-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

Impact 3.9-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

[86] As noted on page 8 of the Sea-Level Rise Vulnerability and Adaptation Planning Study, San Francisco is the closest tide gauge location to Redwood City for which sea level rise projections are provided and it provides projections for planning in Redwood City.

[87] NAVD is established for vertical control surveying in the U.S.

[88] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

Impact 3.9-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in a substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows.

Impact 3.9-4 Develop in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation including in the future due to sea level rise.

Impact 3.9-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.5 Project Impacts

3.9.5.1 Impact 3.9-1

Impact 3.9-1: Would the proposed project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

3.9.5.1.1 Construction

3.9.5.1.1.1 Ferry Terminal

Construction, demolition, grading, excavation, earthmoving activities, and relocation of the railroad tracks for landside facilities could cause the discharge of dust, sediment, vegetation, soil, rock, heavy metals, and other existing materials into Redwood Creek and/or Westpoint Slough, which could violate water quality objectives in the Basin Plan for pollutants as described in **Section 3.9.3.1.2**. Approximately 124,200 cubic yards of fill would be transported to the site from an off-site location. The fill would then be prepared for construction, compacted, and stabilized with weed free hydroseeding, vegetation, and erosion control materials such as geotextile mats. The fill would be used to raise the elevation of the entire 9-acre project site approximately seven feet (elevation 17-feet NAVD). The slope along the boundaries of the project site and along the shoreline would be sloped to gradually build up the site elevation and stabilized. Demolition activities would include demolition and relocation of a maintenance building, removal of a portion of the existing parking lot, and removal of a portion of the existing railroad tracks east of the project site. Underground utilities for the ferry terminal would be installed, including a new stormwater collection and conveyance system. Landscaping would also be installed, and the area of the future visitor-serving uses would be stabilized until construction would begin.

Heavy equipment would be used to conduct these activities, which would require fuel, oil, and other chemical fluids for operation and maintenance of the equipment. Use and transport of these chemicals and potential leaks from equipment could result in a discharge of these pollutants onto land or into waterways. Any activity involving the use of construction products and heavy equipment could result in the incidental release of construction materials (e.g., sawdust, metal fragments, concrete), or the

accidental spill of construction materials (e.g., paints and solvents) or substances commonly used in construction equipment (e.g., fuels, oil, grease). The accidental discharge of pollutants into surface waters could violate water quality objectives in the Basin Plan for pollutants as described in **Section 3.9.3.1.2**.

The proposed project would require authorization under the Construction Stormwater General Permit Order Number 2022-0057-DWQ (Construction General Permit) from the San Francisco Bay RWQCB, as described in **Section 3.9.3.1.2**. A SWPPP would be prepared to obtain authorization under the Construction General Permit. The SWPPP would include a water quality pollution control plan to protect and prevent discharges of pollutants into surface waters. The SWPPP would include a description of stormwater runoff controls and BMPs to prevent polluted runoff from entering surface waters, and provisions for: (1) stormwater management; (2) waste and materials management; (3) spill prevention and control systems; (4) proper storage of hazardous materials; (5) sanitary waste management; and (6) BMP and water quality monitoring and reporting activities. The SWPPP and water quality pollution control plans would be submitted to the RWQCB for review and approval to obtain authorization under the Construction General Permit. The SWPPP would describe temporary BMPs that are required for the project. The types of temporary BMPs would typically include but are not limited to: (1) silt fencing, fiber rolls, gravel bag berms, sediment basins, or other types of erosion and sediment controls; (2) tracking controls and street sweeping to control the movement of sediment off-site; (3) dust control; and (4) temporary soil stabilization. Attachment J of the Construction General Permit describes dewatering requirements that would apply to project construction, including ensuring that discharges will not cause or contribute to a violation of any applicable water quality objectives and monitoring for pH and turbidity at the discharge location. If the discharge water does not comply with numeric action levels for the constituents, then the water would require treatment prior to discharge to surface waters. A dewatering plan would be prepared prior to construction to prevent polluted groundwater from entering surface waters.

With the possible exception of pile driving for the access pier, groundwater would not be encountered during construction at the project site. Groundwater was encountered at approximately eight and half feet below the existing ground surface.[89] The elevation of the project site would be raised approximately seven feet, and after the new fill is placed at the site and compacted, groundwater would then be approximately 15.5 feet below the ground surface. Excavation needed to install underground utilities and to construct the new parking lot would not require excavation beyond 15 feet and groundwater would not be encountered.

Construction activities associated with roadway widening, demolition and relocation of the maintenance building, relocation of the railroad tracks, and paving of the Bay Trail segment would not occur at a depth where groundwater would be encountered. New water utilities would require connections to existing lines. The existing potable water and irrigation water lines are typically located at a depth of five feet below the existing grade and therefore, dewatering would not be required for utility line connections. However, should dewatering be necessary, it would occur in compliance with Attachment J of the Construction General Permit as discussed above. See the evaluation of visitor-serving uses below for discussion of sewer line connections for the permanent restroom facility at the ferry terminal.

[89] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

Major in-water and waterside construction activities would include: (1) berth dredging; (2) marine pile installation; (3) marine float installation; (4) access pier construction; and (5) marine utility and outfitting, which could cause water quality objectives in the Basin Plan to be exceeded. Dredging of approximately 11,500 cubic yards is proposed for the new ferry access. Four to ten, approximately 24-inch to 36-inch concrete or steel piles would be installed to support the access pier that connects to the gangway that would lead from the pier to the new 135-foot by 45-foot steel float. Two of those piles would be upland and up to eight would be in the water or tidelands. The float would be supported by six steel guide piles approximately 36 inches in diameter and 120 feet long that would be in the water. This would result in a maximum footprint from installation of the pilings of 99 square feet, approximately 7,680 square feet for the access pier, gangway, and steel float for a total footprint of approximately 7,760 square feet.

Ferry terminal dredging and construction activities would be adjacent to sensitive aquatic and tidal marsh habitat described in Section 3.3, Biological Resources, of this Draft EIR. During dredging and construction activities, there could be a temporary increase of turbidity and resuspension of sediments and contaminants into the water column, which could exceed water quality objectives described in the Basin Plan. Some resuspension of sediments could also occur during pile driving and other activities that disturb the creek bottom. Construction activities could result in the release of pollutants into sensitive waterways which may include excess sediment and chemical contamination from construction materials (i.e., concrete, mortar, hydrated lime, fuels, and paint). All in-water construction activities would require permits and approvals to comply with USACE, USEPA, RWQCB, and BCDC regulations. The permits and approvals would include BMPs to reduce or avoid impacts to water quality. Construction BMPs to protect water quality from dredging activity and work within the WOTUS would include the following:

- Use of floating surface booms during demolition activities along the shoreline and pile installation to contain debris. Debris would be removed at the end of each workday.
- Debris that falls in the water would be immediately retrieved and disposed of appropriately.
- Construction materials would be stored on land in an area that is stabilized and covered to prevent runoff into Redwood Creek.
- Work barges would not be allowed to ground out at low tide.
- Equipment would be maintained and maintenance would occur off-site. Equipment would be inspected daily for leaks and if leaks are discovered they would be contained and use of the leaking equipment would be suspended until repaired. Leaked material would be cleaned up and properly disposed of.
- Drip pans and absorbent materials to contain and remove spilled contaminants would be used for equipment and vehicles, and an adequate supply of spill cleanup materials would be available.
- The contractor will prepare a spill contingency plan for hazardous waste spills into Redwood Creek and keep floating booms and absorbent materials on-site and ensure that staff is trained regarding the use of the materials, deployment and access of control measures, and reporting measures.
- All equipment would be certified clean of invasive aquatic plant species and marine animals to prevent invasive species from entering waterways.

Dredged material would be removed and transported off-site for beneficial reuse at restored wetlands or disposed of at the San Francisco Deep Ocean Disposal Site (SF-DODS) approximately 50 miles offshore, in accordance with Basin Plan Section 4.20.7 - Water Board Policies on Dredging and Dredge Sediment Disposal, USACE, and BCDC applicable regulations, and subject to a DMMO agencies permits. Sediment sampling and analysis of dredging areas was conducted in Redwood Creek immediately south of the project site in 2024. This sediment quality evaluation was conducted for maintenance dredging activities at Wharves 1 through 4 under the following permits: USACE Permit #2015-00058, RWQCB Section 401 Water Quality Certification 757775, CDFW Lake and Stream Bed Alteration #1600-2015-0199-R3, and BCDC Permit #M1993.077.04. The Haley & Aldrich Report describes the analytical results and sediment disposal or reuse suitability. Based on the results of analysis, dredged material would be suitable for disposal at Alcatraz Island environs (SF-11), SF-DODS, or for beneficial re-use at a wetlands restoration area (Cullinan Ranch Restoration Project or Montezuma Wetland Restoration Project).[90]

Construction activities within Redwood Creek would require authorization by the USACE under CWA Section 404 for the discharge of dredge and fill material into the waterway, and Section 401 Water Quality Certification by the State, as discussed in **Sections 3.9.3.1.1** and **3.9.3.1.2**. A USACE permit would also be required under Section 10 of the Rivers and Harbors Act for construction of the ferry terminal pier, access pier, and float, as well as dredging and filling activities, as discussed in **Section 3.9.3.1.1**. Further, the BCDC issues permits for placing fill or dredging material within its jurisdiction under the McAteer-Petris Act, as described in **Section 3.9.3.1.3**.

The USACE San Francisco DMMO provides a federal and State interagency review of navigational channel dredging permit applications and disposal of dredged material. As a result of the interagency review, the RWQCB may issue Clean Water Act Section 401 water quality certification for disposal of dredged sediments in the Ocean, in the Bay, or for beneficial reuse at approved sites. In addition to the other dredging permit processes, an application would be submitted to the DMMO agencies. The DMMO reviews sediment quality sampling plans and characterization results to determine the suitability of sediment proposed for dredging and disposal or for beneficial reuse. Sediment quality is reported on the San Francisco Bay Dredging and Disposal Database.[91] Sediment sampling and analysis has not been conducted at the ferry terminal proposed dredging area. During final design, sediment sampling and analysis would be conducted at the specific ferry terminal proposed dredging area and submitted for interagency review. Sediment analysis results at nearby sites may also be considered during the DMMO review including the sampling results for the Port of Redwood City Wharves 1 and 4. Sediment characterization data would be provided to the DMMO agencies and a determination would be issued by the DMMO regarding the suitability of the material for disposal either at SF-DODS, for beneficial reuse at wetland restoration sites, or other approved disposal site prior to permit approval. Coordination through the DMMO would address compliance with (1) Clean Water Act Section 404 or Rivers and Harbors Act Section 10 dredging authorization by the USACE San Francisco District; (2) an administrative dredging permit from the BCDC; and (3) Clean Water Act Section 401 water quality certification or waste discharge requirements. The permits coordinated through the DMMO would require dredging BMPs, which may

[90] Haley & Aldrich for the Port of Redwood City. September 2024. Results of Chemical, Physical and Biological Testing of Sediments, Wharves and Multi-use Basin - Port of Redwood City. Available: https://www.dmmosfbay.org/site/alias__8931/170540/default.aspx.

[91] U.S. Army Corps of Engineers. No Date. Dredging Work Permits webpage. Available: https://www.spn.usace.army.mil/Missions/Dredging-Work-Permits/. Accessed March 19, 2025.

include scheduling of dredging operations to avoid adverse effects on local biological resources, use of silt curtains and/or aquatic filter barrier (e.g., gunderbooms), and dredge operation controls (e.g., environmental bucket, no decanting or overflow of dredge scow or barge used to transport dredged materials). Therefore, the effects to water quality would be minimal due to low volume of dredged material and existing requirements for implementation of dredging BMPs.

Proposed construction controls and compliance with applicable conditions of each required federal, State, and regional/local permit, as described in above, for the protection of water quality would ensure that construction of the ferry terminal would not violate water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Therefore, the impact would be less than significant.

3.9.5.1.1.2 Visitor-Serving Uses

The total maximum coverage footprint of the visitor-serving uses would be approximately 210,000 square feet and would include additional paved area, buildings, and walkways. The interim portable restroom to be constructed as part of the ferry terminal project would be replaced with a new 350 square-foot permanent restroom that would be connected to the sewer. New underground utilities would be constructed to serve the new facilities, including a new sewer connection. The new buildings would be a minimum of 100-feet from the water's edge.

In-water construction activities to remove the Shell Unloading Wharf would require permits and approvals to comply with USACE, USEPA, RWQCB, and BCDC regulations. Construction activities and demolition, including removal of the Shell Unloading Wharf in Westpoint Slough, grading, excavation, and earthmoving activities could cause the discharge of dust, sediment, vegetation, soil, rock, and other existing materials into Redwood Creek and Westpoint Slough. Discharge of contamination to surface waters could exceed water quality objectives for some pollutants as described in the Basin Plan (see **Section 3.9.3.1.2**). The slope along the waterways would have already been stabilized with the ferry terminal. Groundwater could be encountered during construction of the buildings during pile driving for building foundations. Additionally, connection to the existing sewer mainline would occur at a depth where groundwater could be encountered. The new sewer mainline would be designed to preclude infiltration of flood waters into the sewer system and discharges from the sewer system to flood water in compliance with 44 CFR 60.3(a)(6).[92] During design of the visitor-serving uses, construction controls, including water quality BMPs for erosion and sedimentation and dewatering requirements that are discussed above for the ferry terminal construction and in **Section 3.9.3.1**, would be included and compliance with applicable conditions of each required regulatory permit for the protection of water quality would be implemented. Similar permits and associated permit BMPs described above for the ferry terminal dredging and construction activities would be implemented during removal and demolition of the Shell Unloading Wharf which would protect water quality and adjacent mudflats. These controls and BMPs would ensure that construction of the visitor-serving uses would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Therefore, the impact would be less than significant.

[92] Code of Federal Regulations Title 44 60.3. Amended December 31, 2024. Floodplain management criteria for flood-prone areas. Available: https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-60#p-60.3(c)(14).

3.9.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As stated in the analysis above, the proposed project would comply with regulatory and permit requirements. It would not violate any water quality standards, waste discharge requirements, or substantially degrade surface or ground water quality during construction. The proposed project would have a less than significant impact during construction.

3.9.5.1.2 Operations

3.9.5.1.2.1 Ferry Terminal

The proposed landside facilities include relocation of an existing maintenance building, a new parking lot, Americans with Disabilities (ADA)-compliant sidewalk, and Class I bicycle trail. The increase of impervious surfaces and maintenance activities would increase the potential for stormwater runoff to transfer pollutants into nearby surface waters such as: oil, grease, and heavy metals from the roadway and parking areas; pesticides and fertilizer from landscaping maintenance; and other pollutants. Discharge of these contaminants could exceed water quality objectives for some pollutants as described in the Basin Plan (see **Section 3.9.3.1.2**). A self-contained, interim portable restroom would also be installed that would not be connected to the sewer system. Spilled sanitary waste or leakage from the interim portable restroom could cause exceedances of water quality objectives for bacteria and other toxic substances. A sanitation service would be procured to remove the waste from the interim portable restroom on a regular basis and periodically inspect the restroom tank for leaks to avoid sanitary waste discharges. Increased vehicles and pedestrians at the project site would occur during operations increasing the potential for trash and other pollutants to enter waterways.

Landside maintenance activities would be the responsibility of the Port staff and would include landscaping, parking lot and hardscape maintenance, portable toilet cleaning, and trash service. These activities could result in a discharge of contaminated runoff or materials into surface waters. Trash on the floats would be picked up on a daily basis. Floats at the terminal would be washed down on an as-needed basis to remove accumulated dirt and salt residue from evaporated creek water, with frequency varying by seasonal storm activities. On average cleanings may occur every quarter. Cleanliness is monitored through routine monthly inspections which may generate follow-up work orders for pressure washing as needed. Freshwater would be used to wash down the floats.

Stormwater drainage and water quality improvements would be implemented in compliance with the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[93] (which is in the process of being reissued) and the Redwood City Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95), which regulate stormwater discharges to surface waters including rivers, streams, lakes, and coastal waters. Modifications to the existing stormwater drainage system along Seaport Boulevard associated with the roadway widening would occur in compliance with the Stormwater San Francisco Bay RWQCB NPDES MRP 3 Permit (Order No. R2-2022-

[93] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008)[94] and the Redwood City Stormwater Management and Discharge Control Program. These permits require that stormwater discharges not cause or contribute to an exceedance of water quality standards and include required post-construction measures such as low impact development (LID) standards to reduce runoff and treat stormwater, source control measures for pollutant generating activities and sources such as parking lots, and site design measures that may include landscaped setbacks from waterways, porous pavement, and vegetated bioswales.

During ferry operations in the Redwood Creek Channel, the vessel would pass between Bair Island and Greco Island. Bair Island would experience wave action on the shoreline. Increased wave action during ferry operations could cause erosion of the bank into the Bay and potentially impact water quality causing exceedances of water quality objectives for suspended sediment, settleable material, suspended material, and turbidity. A Ship Wake and Morphology Assessment Report (Appendix G), evaluated shoreline impacts of the ferry service, focusing on the hydrodynamic and morphological effects of the ferry wake on the nearshore environment. Numerical models were developed to evaluate wake and profile morphological changes in addition to obtaining time series of water level and shoreline profile locations. According to the study, the vessel wake would impact Bair Island shoreline at a speed of 35 knots, and a lower speed of 7 knots would have minimal effects. Shoreline erosion would occur at the higher speeds but not occur at the lower speed of 7 knots.[95] The proposed ferry operation speed would be 35 knots within the Bay and then slow to 7 knots as it approaches Bair Island at Lights 5 and 6 (approximately 1.4 mile from the proposed ferry terminal). The change of speed would occur approximately 1 mile from land where wake impacts would have minimal effects on erosion. The ferries would be powered by renewable diesel fuel and require the use of oil and other lubricants that could cause impacts to water quality if these chemicals are spilled or leaked from the vessels.

Maintenance of the vessels would occur at the Water Emergency Transportation Authority (WETA) Central Bay Operations and Maintenance Facility (CBOMF) in Alameda and would not occur at the Port of Redwood City. Maintenance of all WETA ferry vessels at CBOMF was addressed in the Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility.[96] Regular maintenance would include inspections of the vessels for fuel and lubricant leaks on a regular basis to minimize the risk of water quality violations. The vessels would be fueled at other existing facilities and not at the new ferry terminal, which would reduce the risk of an accidental discharge of fuel into Redwood Creek and Westpoint Slough. In addition, a restroom would be available for use on the ferry which, if not maintained and handled properly, may result in a periodic release of wastewater into the Bay or Redwood Creek. The discharge of these materials to surface waters could exceed water quality objectives for some pollutants as described in the Basin Plan (see **Section 3.9.3.1.2**). However, the restroom would be pumped at CBOMF to an on-

[94] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[95] COWI. February 2025. Port of Redwood City – Ferry Terminal Environmental Review, Ship Wake and Morphology Assessment Report (Appendix G of this Draft EIR).

[96] Water Emergency Transportation Authority (WETA). 2011. Initial Study/Mitigated Negative Declaration for the San Francisco Bay Water Emergency Transportation Authority Central Bay Operations and Maintenance Facility. Available: https://www.redwoodcityport.com/ferry.

shore wastewater treatment facility, and it would be maintained and checked regularly for leaks to ensure that no accidental release of wastewater would occur.

Maintenance dredging operations would continue within the limits of the USACE channel under existing permits, as described under **Sections 3.9.3.1.1** and **3.9.5.1.1**, which could result in increased turbidity or the release of sediments. However, maintenance dredging for the proposed project may be needed outside of the USACE dredging limits to maintain the required depth for the ferry channel at the new terminal. The maintenance dredging, if required, would occur every 2-10 years depending on the specific needs. The USACE channel is currently scheduled for maintenance dredging on a one-year cycle, has an authorized dredging depth of -30 feet MLLW, and is permitted under Section 10 of the Rivers and Harbors Act. The Port would periodically need to conduct maintenance dredging for ferry operations to a depth of 12 feet MLLW for the area beyond the limits of the USACE channel. Similar for the construction dredging activities discussed above, the Port would need maintenance dredging permits from the DMMO agencies, including USACE, BCDC, and RWQCB. Sediment characterization would be required prior to maintenance dredging and disposal or beneficial reuse of the dredged material. Compliance with dredging permit requirements from DMMO agencies would reduce the risk of violating water quality standards in the Basin Plan.

Marine fuel oil spills can result from leaks or breaks in vessel fueling equipment, vessel collisions or sinkings, mechanical or structural failures, or simple human errors such as leaving valves open or aligning them improperly. Very few spills linked to ferries have occurred and the volumes involved have been minimal.[97] The CBOMF is a relatively new facility which began operations in 2018 and there have been no reportable spills according to WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan.[98]

During current vessel fueling activities, fuel oil is dispensed to existing ferry vessels overwater from a service float. Diesel is transferred to the vessels from an underground double walled storage tank through a closed pipe system. The diesel tanks have a leak monitoring system and overfill alarms. Bilge water is transferred through a closed pipe system from vessels to a float tank, and waste oil is removed with a vacuum truck and disposed of in accordance with applicable laws and regulations. Operational practices are described for the CBOMF, Pier 41 Marine Terminal, and North Bay Operations and Maintenance Facility (NBOMF) within WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan.[99] Several practices described in the plan would help to lessen the risk of human error including: prohibiting "topping off" of fuel, setting a target of 85-percent of capacity when fueling, equipping vessels with visual alarms when tanks reach 85 percent capacity and audible alarms when tanks reach 95 percent capacity, containment mats for use during re-fueling, and use of drip pans below hose connections or other potential leak sources.

The proposed project would involve new ferry service and increased numbers of ferry transits initially by providing six to eight trips in the morning and in the evening. Additional service may be added depending on demand. The new ferry service would operate on the Bay linking San Francisco and/or Oakland with Redwood City using routes that are not currently subject to ferry use. Based on the historic record, spills

[97] WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[98] WETA. September 2022. Blue & Gold Fleet Small Marine Fueling Facility Response Plan. Prepared by Weber Readiness, LLC.

[99] WETA. September 2022. Blue & Gold Fleet Small Marine Fueling Facility Response Plan. Prepared by Weber Readiness, LLC.

associated with ferry operations have an extremely low probability of occurrence. BMPs and clean up measures would be implemented to protect water quality if spills were to occur. Operational fueling practices would be implemented to reduce the risk of spills during fueling activities. Therefore, ferry service expansion would not result in a substantial increase in the incidence of spills. However, should a spill occur, there are detailed procedures and engineering requirements in place to prevent and address harmful spills and discharges. These include placement of booms around sensitive areas and in accordance with strategies identified for particular areas around the San Francisco Bay, as described in WETA's Blue & Gold Fleet Small Marine Fueling Facility Response Plan. This includes compliance with coordinated response plans including the ACP led by the USCG San Francisco Sector required under OPA discussed in **Section 3.9.3.1.1**. In addition, annual drills are conducted in the form of tabletop exercises to practice implementation of Blue & Gold Fleet operators' contingency plan described in their Facility Response Plan. WETA conducts these drills to request drills and exercises credit from the CDFW.[100]

As described above, ferry terminal operations would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. The impact would be less than significant.

3.9.5.1.2.2 Visitor-Serving-Uses

Visitor-serving uses maintenance activities would include landscaping, parking lot and hardscape maintenance, restroom cleaning, and trash service. Water use during maintenance activities or a spill of toxic materials or trash could result in a discharge to surface waters. Contaminated discharges could exceed water quality objectives for bacteria, biostimulatory substances, dissolved oxygen, floating material, toxic substances, pH, suspended sediments, settleable material, suspended material, and turbidity. Site controls and stormwater management facilities constructed for the ferry terminal for the access road and landscape improvements along with site controls and stormwater management facilities designed specifically for the visitor-serving uses would prevent the discharge of pollutants into Redwood Creek and Westpoint Slough. As discussed for the ferry terminal above, stormwater management facilities for the visitor-serving uses would comply with the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[101] and the Redwood City Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95), which regulate stormwater discharges to surface waters. These permits require that stormwater discharges not cause or contribute to an exceedance of water quality standards and include required post-construction measures such as LID standards to reduce runoff and treat stormwater, source control measures, and site design measures.

These measures would ensure that the operation of visitor-serving uses would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. The impact would be less than significant.

[100] WETA 2022-2025 CDFW Drills and Exercises Credit Requests. December 5, 2022, September 13, 2023, September 11, 2024, and April 23, 2025.

[101] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

3.9.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As stated in the analysis above, operation of the proposed project would not violate any water quality standards, waste discharge requirements, or substantially degrade surface or ground water quality. The impact would be a less than significant during operations.

3.9.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.9.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.9.5.2 Impact 3.9-2

Impact 3.9-2: Would the proposed project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

3.9.5.2.1 Ferry Terminal

The project site is in the San Mateo Plain Subbasin of the Santa Clara Valley Basin and is not required to have a Groundwater Sustainability Plan as stated in **Section 3.9.3.2.2** above. The groundwater in this area is not used as a source of water. A dewatering plan would be prepared prior to construction to prevent polluted groundwater from entering surface waters.

As stated above, with the exception of pile driving for the access pier, groundwater would not be encountered during construction at the project site. Groundwater was encountered at approximately eight and a half feet during geotechnical investigations, and the elevation of the project site would be raised approximately seven feet during construction.[102] Excavation needed to install underground utilities and to construct the new parking lot would likely not require excavation beyond 15 feet after the site elevation is raised and groundwater would not be encountered. Additional construction activities associated with roadway widening, demolition and relocation of the maintenance building, relocation of the railroad tracks, and paving of the Bay Trail segment would not occur at a depth where groundwater would be encountered. Potable water and irrigation water lines would be located at a depth of five feet below the existing grade and therefore, dewatering is not expected to be required for utility line connections. However, should dewatering be necessary, it would occur in compliance with Attachment J of the Construction General Permit as discussed above.

The additional fill would increase the infiltration depth for water to reach the aquifer, which would interfere with recharge of the aquifer in this location; however, since there are no existing users of groundwater in this location and the project's proximity to the tidal zone and at the downstream end of the aquifer, there would be no impacts to recharge of the aquifer.

[102] Port of Redwood City. December 2021. Initial Study/Proposed Mitigated Negative Declaration for the Ready-Mix Concrete Plant Project. Appendix D. Prepared by Ascent Environmental.

Therefore, the proposed project would not substantially decrease groundwater supplies for drinking water or other uses, interfere with recharge, or impede sustainable groundwater management of the basin. There would be no impact.

3.9.5.2.2 Visitor-Serving Uses

As stated above, there would be no impact to groundwater supplies or recharge, nor impediment of sustainable groundwater management of the basin.

3.9.5.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would have no impact on groundwater supplies or recharge, or sustainable groundwater management of the basin.

3.9.5.2.4 Mitigation Measures

No mitigation is required for construction or operations.

3.9.5.2.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact from construction and operations.

3.9.5.3 Impact 3.9-3

Impact 3.9-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in the following manner:

- **i) Would the project result in a substantial erosion or siltation on- or off-site?**
- **ii) Would the project substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**
- **iii) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**
- **iv) Would the project impede or redirect flood flows?**

3.9.5.3.1 Erosion, and Siltation On- or Off-Site

3.9.5.3.1.1 Construction

Ferry Terminal

Ground disturbing activities occurring during construction of the ferry terminal would temporarily expose surficial soils to wind and water erosion, increasing the potential for soil erosion or siltation off-site. As stated above in **Section 3.9.5.1.1**, construction of the ferry terminal would include raising the elevation of the project site by approximately 7 feet. While the raising of the project site would change the drainage pattern of the site, the fill would be compacted, stabilized, and prepared for construction of the landside facilities in compliance with the California Building Code (CBC), City of Redwood City Building Code and Engineering Standards, and site-specific soils and geotechnical investigation. Construction of the project, including dredging activities in Redwood Creek, would not alter the course of Redwood Creek or Westpoint Slough. The slope along the boundaries of the site would be protected and shored in

compliance with the CBC and City Building Code and Engineering Standards. Landscaping would also be installed to further stabilize areas disturbed during construction (see Section 3.6, Geology, Soils, and Paleontological Resources, for additional information.) New impervious surfaces would be constructed.

The proposed project would obtain authorization under the Construction General Permit from the San Francisco Bay RWQCB (Order Number 2022-0057-DWQ), as discussed in **Sections 3.9.3.1.2** and **3.9.5.1.1**. The required SWPPP would include plans and descriptions of temporary stormwater runoff controls and BMPs to minimize erosion during construction. Typical temporary construction BMPs to control erosion and siltation off-site would include: (1) silt fencing, fiber rolls, gravel bag berms, sediment basins, or other types of sediment controls; (2) tracking controls and street sweeping; (3) dust control; (4) temporary soil stabilization; and (5) constructing systems (e.g., sediment traps and basins to detain water and allow sediment to settle out before the runoff is released) to prevent contaminants from entering the stormwater system. Further, construction would comply with the San Mateo Countywide Water Pollution Prevention Program's best practices to prevent erosion during grading activities, and California Stormwater Quality Association's (CASQA) Construction BMPs for erosion and sediment control, which includes use of geotextiles and mats; wood mulching; dikes and bioswales; streambank stabilization; silt fence, fiber rolls or other sediment barriers to prevent sediments from leaving the site; street sweeping and vacuuming; dust control; dewatering operations; and drain inlet protections to reduce polluted runoff from discharging to surface waters.[103]

Temporary BMPs and stabilization measures, as described above, would minimize erosion and siltation impacts to water quality from polluted stormwater or runoff water on- and off-site during construction. Therefore, construction of the ferry terminal would not substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site. The impact would be less than significant.

Visitor-Serving Uses

The future visitor-serving uses would be constructed on the elevated site (discussed above), but would still require grading, excavation, and earthmoving activities associated with building construction and utility installation. As with the ferry terminal discussed above, authorization under the Construction General Permit (Order Number 2022-0057-DWQ) and preparation of a SWPPP would be required. Drainage patterns would be altered with the construction of new permanent stormwater facilities that would collect, provide treatment, and convey stormwater to Redwood Creek or Westpoint Slough. Temporary BMPs and stabilization measures implemented in compliance with State and City permits and regulations identified for the ferry terminal above would minimize erosion and siltation impacts on- and off-site during construction. Temporary BMPs may include: (1) silt fencing, fiber rolls, gravel bag berms, sediment basins, or other types of sediment controls; (2) tracking controls and street sweeping; (3) dust control; (4) temporary soil stabilization; and (5) constructing systems (e.g., sediment traps and basins to detain water and allow sediment to settle out before the runoff is released) to prevent contaminants from entering the stormwater system. Therefore, construction of the visitor-serving uses would not

[103] California Stormwater Quality Association (CASQA). October 2024. Stormwater Best Management Practices (BMP) Handbook, Construction Handbook.

substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site from polluted water runoff. The impact would be less than significant.

Project Impact: Ferry Terminal and Visitor-Serving Uses

The fill placed on the project site to increase the site elevation would be compacted and stabilized after placement and prior to construction of the visitor-serving uses. Temporary BMPs during construction would minimize erosion and siltation on-and off-site during construction of all project components. Therefore, construction of the proposed project would not substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site. The impact would be less than significant.

3.9.5.3.1.2 Operations

Ferry Terminal

The new ferry terminal impervious surfaces would drain to new permanent stormwater facilities, and site controls and landscaping would be installed alongside new impervious areas to prevent erosion and siltation on- and off-site. These facilities would be designed during final design and may include pretreatment units, bioswales, or other detention/treatment facilities to collect, treat, and infiltrate stormwater on-site. Site controls and drainage would be implemented in compliance with City Engineering Standards (**Section 3.9.3.1.3**) and the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[104] San Francisco Bay RWQCB NPDES MRP 3 Permit (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008)[105] (see NPDES Permit Programs in **Section 3.9.3.1.2**), and the Redwood City Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) in **Section 3.9.3.1.3**, which regulate stormwater discharges to surface waters including rivers, streams, lakes, and coastal waters. All bare dirt areas would be stabilized and revegetated with native and low water plants and landscaping, and stormwater outfalls would be stabilized to prevent erosion. Landscaped areas would trap sediment transported from impervious areas and allow for infiltration of stormwater that sheet flows (a wide swath of water flowing across a road or sidewalk) to these areas and from precipitation.

As described in **Section 3.9.5.1.2.1**, the ferry operation speed would be 35 knots within the Bay and would be at a distance where wake impacts would have minimal effects. The vessel speed would then slow as it approaches the vicinity of Bair Island to seven knots at Lights 5 and 6 and would result in minimal wave impacts minimizing shoreline erosion on Bair Island and other shoreline areas of the channel. Therefore, operation of the ferry terminal would not substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site. The impact would be less than significant.

[104] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[105] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

Visitor-Serving Uses

The new visitor-serving uses would result in additional impervious surfaces that would drain to new permanent stormwater facilities. Site controls and drainage would be implemented in compliance with City Engineering Standards and applicable NPDES permits described for the ferry terminal above. The final design of these facilities may include pretreatment units, bioswales, or other detention/treatment facilities to collect, treat, and infiltrate stormwater on-site. Site controls and landscaping would be installed alongside new impervious areas to prevent erosion and siltation on- and off-site. All bare dirt areas would be stabilized and revegetated with native and low water plants and landscaping. Landscaped areas would trap sediment transported from impervious areas and allow for infiltration of stormwater that sheet flows to these areas and from precipitation.

Therefore, operation of the visitor-serving uses would not substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site. The impact would be less than significant.

Project Impact: Ferry Terminal and Visitor-Serving Uses

New permanent stormwater facilities would be designed to collect stormwater and provide treatment to prevent siltation in compliance with State, County, and City requirements. Landscaping would stabilize areas without hardscape after construction. Ferry vessel speeds would be low in portions of the channel and minimize the potential for shoreline erosion. Therefore, operation of the proposed project would not substantially alter the drainage pattern of the site in a manner which would result in substantial erosion or siltation on- or off-site. The impact would be less than significant.

3.9.5.3.2 Surface Runoff Rate and Amount of Surface Runoff

3.9.5.3.2.1 Ferry Terminal

The proposed ferry terminal would increase impervious surface area from the construction of landside facilities including the new parking lot, access pier, walkways, new paving of a currently unpaved trail, and the widening of Seaport Boulevard by approximately 20 to 26 feet to accommodate a new paved bicycle trail and sidewalk. There would also be a small interim portable restroom. Additionally, the project site access road would alter the configuration of a portion of the western public parking lot and result in a small increase in impervious surface area. Approximately 300 feet of the existing railroad tracks would be abandoned and relocated to the vacated portion of Frontage Road. The existing maintenance building would be demolished and a new building of similar size would be relocated within the Pacific Shores Center property; if the new structure is located on a currently pervious surface, this could also result in a small increase in impervious surface area. The existing unpaved trail at the northern end of the site would be paved and extended 70 feet to the west. Overall, the ferry terminal would add approximately 176,000 square feet of new impervious surface which would increase the rate and amount of surface runoff compared to existing conditions. The ferry dock and access pier would be new impervious surfaces within Redwood Creek; however, stormwater would runoff immediately into Redwood Creek and the new waterside facilities would not result in flooding.

During final design, stormwater calculations would be prepared to determine the rate and amount of surface runoff resulting from the new impervious surfaces, and to design stormwater facilities to provide adequate retention and reduced discharge rates in compliance with the City's Engineering Standards, the

Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[106] San Francisco Bay RWQCB NPDES MRP 3 Permit Sections C.3 and C.6 (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008),[107] San Mateo Countywide Water Pollution Prevention Program, and the City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95), as described in **Sections 3.9.3.1.2** and **3.9.3.1.3**. The Port would work with CEMEX to ensure that the treated stormwater drainage discharge pipe into Westpoint Slough would be sized appropriately to handle the calculated volume and to handle additional stormwater runoff resulting from the new impervious surfaces. Design compliance with these programs and new stormwater management infrastructure would reduce the risk of flooding on- or off-site from the new impervious surfaces because the new facilities would intercept and direct stormwater and other runoff water to the storm drains, detention facilities, or infiltration facilities. New stormwater management facilities would be constructed in accordance with the final design and comply with regulations identified above and in **Section 3.9.3.1**. During operation, stormwater facilities would be inspected and maintained to remove accumulated debris or other obstructions to ensure proper operation of the facilities. Therefore, construction and operation of the ferry terminal would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site and the impact would be less than significant.

3.9.5.3.2.2 Visitor-Serving Uses

Based on the maximum footprint for new development, the future visitor-serving uses would add approximately 87,000 square feet of impervious surface. Final design of these facilities would prepare stormwater calculations, and design and size stormwater facilities to meet regulatory requirements as described above for the ferry terminal for on-site control systems to manage stormwater and prevent runoff and flooding on- and off-site. New stormwater management facilities would be constructed in accordance with the final design and comply with the regulations identified above for the ferry terminal. Stormwater facilities would be inspected and maintained to ensure proper operation. Therefore, construction and operation of the visitor-serving uses would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site and the impact would be less than significant.

3.9.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Stormwater management facilities would be sized to reduce flooding impacts on- and off-site and comply with regulatory requirements. Stormwater facilities would be maintained to ensure proper operation. Therefore, the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site and the impact would be less than significant.

[106] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[107] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

3.9.5.3.3 Contribution of Runoff Water - Capacity and Water Quality

3.9.5.3.3.1 Ferry Terminal

As stated above in **Section 3.9.5.3.2**, the ferry terminal would increase impervious surface area from the construction of landside facilities which would contribute to stormwater runoff which could be polluted. Landscaping irrigation would be designed to avoid runoff and direct water away from paved areas in compliance with stormwater management regulations. The waterside facilities include new impervious surfaces and no new stormwater facilities. Stormwater runoff from the new waterside facilities, which are impervious, would flow into Redwood Creek, and would not result in flooding. During final design, stormwater calculations would be prepared to determine the rate and amount of surface runoff resulting from the new impervious surfaces, and to size stormwater facilities for the parking lot and landside facilities appropriately to provide enough capacity for stormwater conveyance and treatment on-site and avoid runoff into waterways and adjacent properties. Stormwater facilities would be designed during the final design phase and may include: detention basins that infiltrate stormwater, bioswales, or underground storage and infiltration facilities. The design of the facilities would comply with the San Mateo Countywide Water Pollution Prevention Program, and Redwood City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) and Engineering Standards to control the discharge of polluted runoff. The Redwood City Municipal Code Chapter 27A Stormwater Treatment Measures and Maintenance Program, Article II (Ordinance No. 2269 and 2465) states projects that create 10,000 square feet or more of impervious surface and uncovered parking lots that create 5,000 square feet or more of impervious surface are C.3. regulated projects under the San Francisco Bay RWQCB MRP 3 NPDES Permit (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008).[108] C.3. projects shall be designed to capture, detain, and treat through sedimentation and infiltration a minimum of 80-percent of the 85th percentile 24-hour storm runoff event from impervious surfaces. In addition, the Redwood City Municipal Code also specifies standards for parking lots and similar structures that may contribute pollutants to stormwater to include BMPs that capture and treat polluted stormwater prior to discharge.[109] If infiltration is not feasible at the site, the design should be sized to treat at least 80-percent of the total runoff over the life of the proposed project as described in the San Mateo County C.3 Technical Guidance and in accordance with the City's Green Infrastructure Plan.[110] Similar requirements that apply to development within the Port are identified in the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004).[111] During operations, stormwater facilities would be inspected and maintained to remove accumulated debris or other obstructions to ensure proper operation of the facilities to control runoff that could be polluted. Therefore, construction and operation of the ferry terminal would not exceed the capacity of existing or

[108] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[109] City of Redwood City. Municipal Code, Chapter 27A Stormwater Management and Discharge Control Program. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH27ASTMADICOPR.

[110] C/CAG. November 2023. San Mateo Countywide Water Pollution Prevention Program, C.3 Regulated Projects Guide. Available: https://www.flowstobay.org/wp-content/uploads/2024/01/C3-Regulated-Projects-Guide-2023_010524.pdf.

[111] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

planned stormwater drainage systems or provide substantial additional sources of polluted runoff; the impact would be less than significant.

3.9.5.3.3.2 Visitor-Serving Uses

During final design of visitor-serving uses, stormwater calculations would be prepared and the design of stormwater management facilities would be the appropriate size to meet capacity and regulatory requirements described for the ferry terminal above. New stormwater management facilities would be constructed in accordance with the final design and comply with regulations. Stormwater facilities would be inspected and maintained to ensure proper operation for control of runoff that could be polluted. Therefore, construction and operation of the visitor-serving uses would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; the impact would be less than significant.

3.9.5.3.3.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, the ferry terminal and visitor-serving uses would be designed and constructed with sufficient capacity in compliance with State, County, and City requirements to meet the needs of the system. Therefore, construction and operation of the proposed project would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; the impact would be less than significant.

3.9.5.3.4 Impede or Redirect Flood Flows

3.9.5.3.4.1 Ferry Terminal

As stated in **Section 3.9.3.2.3**, the eastern portion of the project site is partially within the 100-year floodplain and low point areas along the shoreline are also prone to flooding. The predicted sea level rise impacts for the region would exacerbate flooding issues (see **Section 3.9.3.2.4**). The development of structures and impervious surfaces could impede or redirect flood flow. However, the project site would be raised to the elevation of 17 feet NAVD which is consistent with the recommendations of sea level rise adaptation studies prepared by the County and the City. Raising the site elevation would reduce the risk of flooding under existing conditions and with predicted sea level rise. Further, as described in **Section 3.9.5.3.1**, compliance with the NPDES Construction General Permit and San Mateo Countywide Water Pollution Prevention Program stormwater management requirements during construction would be required. New permanent stormwater management infrastructure would be constructed and would comply with applicable NPDES and City Engineering Standards.

Existing drainage patterns would change with the addition of 174,500 square feet of impervious surfaces. The new infrastructure would alleviate flooding associated with new impervious surfaces at the project site because it would be sized to detain, treat, and infiltrate stormwater on-site and prevent runoff from being conveyed off-site. The increased site elevation at the 9-acre site would be higher than the 100-year floodplain elevation and would not be inundated in the future during a 100-year flood event. As stated above, the final design would include measures to reduce flood flows on-site and avoid impeding or redirecting flood flows on- and off-site while not substantially altering the existing drainage pattern of the area. The impact would be less than significant.

The top of the float piles, floating ferry dock, and access pier that connect the dock to the access pier would accommodate variations in water elevation to accommodate changes such as tidal fluctuations, sea level rise, and storm conditions resulting in increased rainfall and on-shore runoff entering the

waterways. Other project improvements would be constructed at the current elevation (roadway widening and access improvements, railroad relocation, paving of the unpaved path in the waterfront park) and existing infrastructure and/or new stormwater infrastructure would be constructed as needed to collect and infiltrate stormwater to alleviate flooding. Therefore, the ferry terminal project would not substantially alter the existing drainage pattern of the area such that flood flows would be impeded or redirected.

Portions of the Pacific Shores Center are within the 100-year floodplain, primarily the outer parking lots. The relocated maintenance building could be constructed within this area because the exact location has not yet been determined. This building would be small (approximately 1,000 square feet) and located within an area with an existing stormwater management system and, as such, it would not substantially alter the existing drainage pattern of the area such that flood flows would be impeded or redirected.

As described above, construction and operation of the ferry terminal would not substantially alter the existing drainage pattern of the area such that flood flows would be impeded or redirected. The impact would be less than significant.

3.9.5.3.4.2 Visitor-Serving Uses

The existing floodplain and sea level rise vulnerability risk for the visitor-serving uses are similar to the landside project site for the ferry terminal discussed above. Raising the site elevation approximately seven feet would reduce the risk of flooding, including from predicted sea level rise because the new site elevation would be higher than the 100-year floodplain elevation and sea level rise projections. The visitor-serving uses would be protected and would not impede or redirect flood flows. New stormwater management infrastructure would be constructed in compliance with State, County, and City requirements stated above for the ferry terminal, and would help to alleviate flooding from stormwater. Therefore, construction and operation of the visitor-serving uses would not substantially alter the existing drainage pattern of the area such that flood flows would be impeded or redirected. The impact would be less than significant.

3.9.5.3.4.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, raising the site elevation would reduce the risk of flooding, including from predicted sea level rise. The proposed project would be protected and would not impede or redirect flood flows. New stormwater management infrastructure would be constructed in compliance with State, County, and City requirements and would help to alleviate flooding from stormwater. Therefore, construction and operation of the proposed project would not substantially alter the existing drainage pattern of the area such that flood flows would be impeded or redirected. The impact would be less than significant.

3.9.5.3.5 Summary

Construction and operation of the proposed project would not substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or impede or redirect flood flows.

3.9.5.3.5.1 Mitigation Measures

No mitigation is required for construction or operations.

3.9.5.3.5.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.9.5.4 Impact 3.9-4

Impact 3.9-4: Would the proposed project be developed in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation including in the future due to sea level rise?

3.9.5.4.1 Ferry Terminal

As stated above in **Section 3.9.3.2.3**, the ferry terminal site is partially within a flood hazard area, specifically Zone AE, an area subject to inundation by the one-percent-annual-chance flood event (**Figure 3.9-2**). However, during construction, the 9-acre project site would be raised 7 feet above the base elevation of the flood hazard area and sea level rise predictions. Seaport Boulevard and Frontage Road improvements are not proposed within the 100-year floodplain and this portion of the project area would not be raised in elevation. Portions of the Pacific Shores Center where the maintenance building could potentially be relocated (location of relocated maintenance building would be determined during final design) are within Zone AE. The widening of Seaport Boulevard, relocation of the railroad tracks, and relocation of the maintenance building would not alter flood risk compared to baseline conditions, nor would those project components involve the use or storage of new chemicals or other pollutants in the project area that would result in risk associated with release of pollutants due to flood inundation. Any chemicals such as cleaning supplies, maintenance chemicals, or herbicides and pesticides stored in the maintenance building would be in small quantities and stored in accordance with regulations to prevent accidental release. This includes the California Hazardous Waste Control Law discussed in **Section 3.9.3.1.2** that establishes criteria for identifying, packaging, and labeling hazardous wastes and requirements for treatment, storage, disposal, and transportation. Therefore, the risk of release of pollutants due to project inundation from a flood would be less than significant.

A seiche is a standing wave generated during earthquakes within enclosed bodies of water such as reservoirs and lakes. According to the 2022 Redwood City General Plan EIR, the project site could experience seiche or seiche-related effects during seismic activity due to its proximity to the San Francisco Bay.[112] However, the project site is buffered by Bair Island and other islands, thus lowering the probability of seiche-induced impacts. In addition, seiches historically have not resulted in substantial flooding or damage in the San Francisco Bay Area.[113] Therefore, the risk of release of pollutants due to project inundation from a seiche would be less than significant.

[112] City of Redwood City. January 2023. Housing, Built Environment, Public Safety, Building Community & Natural Resources Elements Update to the Redwood City General Plan Final Environmental Impact Report. Prepared with the assistance of MIG, Inc., Marshall Day Acoustics, and Fehr & Peers. State Clearinghouse Number 2022100449. Available: https://www.redwoodcity.org/home/showpublisheddocument/28434/638500033673930000.

[113] City of Redwood City. November 2022. Housing, Built Environment, Public Safety, Building Community, Natural Resources & Environmental Justice Elements Update to the Redwood City General Plan: Draft Environmental Impact Report. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/environmental-documents/general-plan-eir.

The project area is in a tsunami zone; however, as previously described in **Section 3.9.3.2.3** the City considers the risk of a tsunami occurring as low because of the distance from the Pacific Ocean shoreline and the site is not within the County flood evacuation zone. Therefore, the risk of release of pollutants due to project inundation from a tsunami would be less than significant.

The site elevation would be raised with the placement of fill to an elevation of 17 feet NAVD to reduce the risk of flooding and emergent groundwater due to predicted sea level rise. The raising of the site is compliant with the primary strategy identified for the project area in the Sea-Level Rise Study to accommodate a 100-year flood event with approximately 3.5 feet of sea level rise and still meet FEMA requirements. The raising of the project site consistent with Sea-Level Rise Study recommendations would reduce future risk of site inundation due to sea level rise. The floating ferry dock and gangway that connects the dock to the access pier would accommodate changes in sea level and not pose a water quality risk from polluted flood waters from inundation. The project components outside of the project site (widening of Seaport Boulevard, relocation of the maintenance building, replacement of railroad tracks, and paving of the unpaved trail in the waterfront park) would occur at the existing elevation. Proposed adaptation strategies in the Sea-Level Rise Study include raising the shoreline elevation up to 16-17 feet NAVD along the shoreline north of Seaport Boulevard and along the northern shoreline of the project site and proposed trail. Some of the proposed project improvements outside of the 9-acre project site (Seaport Boulevard, relocated maintenance building and railroad tracks, and new paved waterfront trail) are within an area that would not be raised in elevation but are also not within the 100-year floodplain. If the shoreline outside the 9-acre parcel is not raised to 17 feet NAVD in the future, these project components could be exposed to shoreline overtopping from Redwood Creek or Westpoint Slough due to sea level rise. Inundation water could result in the discharge of pollutants to surface waters. However, Seaport Boulevard and railroad track operations would not involve the use or storage of hazardous chemicals or other pollutants that would result in risk associated with release of pollutants due to inundation. As identified above, any chemicals such as cleaning supplies, maintenance chemicals, or herbicides and pesticides stored in the maintenance building would be in small quantities and stored in accordance with regulations to prevent accidental release such as the California Hazardous Waste Control Law. Therefore, compliance with regulations and project design would result in a less than significant impact to water quality from release of pollutants due to project inundation from sea level rise.

According to the Sea-Level Rise Study, the marshes including Bair and Greco Islands in the vicinity of the project are expected to accumulate material and grow vertically with sea level rise (approximately 3.5 feet) from accretion (gradual buildup) of organic matter and sediment deposition. This would preserve their capacity to attenuate waves. However, if sea level rise occurs at approximately 6.9 feet, which is less likely, the marshes may lose elevation depending on flood events and provide less wave attenuation in the future. If elevation loss were to occur, future actions and sediment placement could prevent negative impacts.[114] Therefore, ferry operations would have a less than significant impact to shoreline erosion at Bair Island and water quality after sea level rise. In addition, sea level rise would be gradual and monitored by regional agencies included the BCDC, San Mateo County, and Redwood City and actions would be taken to protect the marshes as needed.

[114] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

As described above, while the ferry terminal uses would be developed in a flood hazard, tsunami, or seiche zone, and are in an area that could be subject to future sea level rise, the risk associated with release of pollutants due to project inundation would be less than significant.

3.9.5.4.2 Visitor-Serving Uses

The visitor-serving uses would be constructed in the same project site as the ferry terminal and the existing conditions are the same for flood hazard, tsunami risk, seiche risk, and sea level rise as discussed in **Section 3.9.5.4.1** above. The visitor-serving uses would be developed on the 9-acre site which would be raised to elevation 17 feet NAVD. As discussed under the ferry terminal evaluation above, the raised slope would be stabilized which would reduce risks associated with flooding emergent groundwater due to sea level rise. The new sewer line would be installed in accordance with applicable regulations at a depth that would not be affected by sea level rise, flood hazard, or a tsunami. Further, while there would be small quantities of cleaning supplies and maintenance chemicals stored on-site, they would be stored and contained in accordance with regulations to prevent accidental release. This includes compliance with the California Hazardous Waste Control Law identified in **Section 3.9.3.1.2** that establishes criteria for identifying, packaging, and labeling hazardous wastes and requirements for treatment, storage, disposal, and transportation. Therefore, compliance with regulations and project design would result in a less than significant impact to water quality from release of pollutants due to project inundation from sea level rise.

3.9.5.4.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, the elevation of the 9-acre project site would be raised which would reduce the risk of inundation from sea level rise to the ferry terminal and visitor-serving uses. The project area outside of the 9-acre parcel, which includes Seaport Boulevard, railroad track, and relocated maintenance building, are not proposed within the 100-year floodplain but would be at risk of inundation due to sea level rise. Storage of chemicals in the maintenance building would occur in accordance with regulations to prevent accidental release. Therefore, the risk of release of pollutants from inundation due to the proximity of the project site in a flood hazard, tsunami, or seiche zone, and due to future sea level rise would be less than significant for the proposed project.

3.9.5.4.4 Mitigation Measures

No mitigation is required for construction or operations.

3.9.5.4.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.9.5.5 Impact 3.9-5

Would the proposed project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

3.9.5.5.1 Ferry Terminal

As discussed in **Section 3.9.3.1.2**, the groundwater basin is considered a very low priority under the SGMA and is not required to have a sustainable groundwater management plan. Therefore, the construction and

operation of the ferry terminal would not conflict with or obstruct implementation of a sustainable groundwater management plan.

The Basin Plan is the water quality control plan for the project area and describes urban runoff management requirements for stormwater discharge through the construction activity control program and waste discharge permitting program. During construction, the ferry terminal would comply with the Basin Plan surface and groundwater discharge prohibitions, pollution prevention requirements, and strategies. An NOI and SWPPP would be prepared and submitted to the RWQCB to obtain authorization under the Construction General Permit (Order Number 2022-0057-DWQ), as described in **Section 3.9.3.1.2**. The Construction General Permit authorization would require the Contractor to construct the project in accordance with the approved water pollution control plan and SWPPP, and conduct water quality monitoring activities and reporting. The project water quality control plan would be included in the final plans and specifications and describe temporary stormwater BMPs for erosion control and sediment transport and would typically include but are not limited to: (1) silt fencing, fiber rolls, gravel bag berms, sediment basins, or other types of erosion and sediment controls; (2) tracking controls and street sweeping to control the movement of sediment off-site; (3) dust control; and (4) temporary soil stabilization. Construction activities would be implemented in compliance with the permit for runoff management requirements for stormwater discharges, and the State Antidegradation Policy to maintain high quality of waters in California.

Permanent stormwater management infrastructure would be designed during the final design phase and may include: detention basins that infiltrate stormwater, bioswales, or underground storage and infiltration facilities. The design of the facilities would comply with the San Mateo Countywide Water Pollution Prevention Program, and Redwood City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) and Engineering Standards to control the discharge of polluted runoff. Discharge from the stormwater systems would comply with the San Francisco Bay RWQCB NPDES MRP 3 (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008),[115] the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[116] the San Mateo Countywide Water Pollution Prevention Program, and Redwood City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) which regulate municipal stormwater discharges in the region. Therefore, the construction and operation of the ferry terminal would not conflict with or obstruct implementation of a water quality control plan (Basin Plan).

The Port would apply to obtain authorization and comply with conditions of the federal and State CWA permits and approvals, including the USACE CWA Section 404 permit and Rivers and Harbors Act Section 10 permit, State-issued CWA Section 401 Water Quality Certification, and BCDC permit, as discussed in **Section 3.9.3.1** and **3.9.5.1.1**. The Port would obtain DMMO approval for construction and operational maintenance dredging and disposal or beneficial reuse of the dredged material, as discussed in

[115] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[116] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

Section 3.9.5.1. The proposed project would also comply with the LTMS for Placement of Dredged Material in the San Francisco Bay Region, a policy in the Basin Plan. Dredged material to construct the waterside facilities would be removed and transported off-site for disposal offshore or for beneficial reuse.

Construction and operation of the ferry terminal would comply with the Basin Plan and other federal, State, and local regulations and programs related to water quality control, as described above and in **Section 3.9.5.1**. Therefore, construction and operation of the ferry terminal would not conflict or obstruct the implementation of a water quality control plan, and there would be no impact.

3.9.5.5.2 Visitor-Serving Uses

The Basin Plan is the water quality control plan for the visitor-serving uses area and describes urban runoff management requirements for stormwater discharge through the construction activity control program and waste discharge permitting program. During construction, the project would comply with the Basin Plan surface and groundwater discharge prohibitions, pollution prevention requirements, and strategies. An NOI and SWPPP would be prepared and submitted to the RWQCB to obtain authorization under the Construction General Permit (Order Number 2022-0057-DWQ), as described in **Section 3.9.3.1.2**. The Construction General Permit authorization would require the Contractor to construct the project in accordance with the approved project water pollution control plan and SWPPP, and conduct water quality monitoring and reporting activities. The project water quality control plan would be included in the final plans and specifications and describe temporary stormwater BMPs for erosion control and sediment transport. Construction activities would be implemented in compliance with the permit for runoff management requirements for stormwater discharges, and the State Antidegradation Policy to maintain high quality of waters in California.

Permanent stormwater management infrastructure would be designed during the final design phase and may include: detention basins that infiltrate stormwater, bioswales, or underground storage and infiltration facilities. The design of the facilities would comply with the San Mateo Countywide Water Pollution Prevention Program, and Redwood City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) and Engineering Standards to control the discharge of polluted runoff. Discharge from the stormwater systems would comply with the San Francisco Bay RWQCB NPDES MRP 3 (Order No. R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008),[117] the Phase II Small MS4 permit (Order Number 2013-0001-DWQ, NPDES Permit No. CAS000004),[118] the San Mateo Countywide Water Pollution Prevention Program, and Redwood City's Stormwater Management and Discharge Control Program (Ordinance No. 2090, Section 1, 6-12-95) which regulate municipal stormwater discharges in the region. Therefore, the construction and operation of the visitor-serving uses would not conflict with or obstruct implementation of a water quality control plan (Basin Plan).

[117] San Francisco Bay Regional Water Quality Control Board. May 11, 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2022/R2-2022-0018.pdf.

[118] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

3.9.5.5.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would comply with the Basin Plan, and federal, State, and local regulations related to water quality control as discussed above. It would not obstruct or conflict with implementation of a water quality control plan or a sustainable groundwater management plan. Therefore, there would be no impact.

3.9.5.5.4 Mitigation Measures

No mitigation is required for construction or operations.

3.9.5.5.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.9.5.6 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

Short-term construction and long-term operational impacts on hydrology and water quality tend to be location-specific and do not compound or increase in combination with past, present, or future projects unless these projects are occurring concurrently, and are adjacent to or close enough to the same sensitive receptors. The geographic context for assessing cumulative environmental impacts associated with hydrology and water quality includes the City, the Port, the waters of Lower San Francisco Bay, and the Santa Clara Valley Basin. Any future development within the geographic scope of the City (i.e., the boundary of the City) would be required to meet all City regulations and plans to minimize impacts. The cumulative impacts analysis evaluates whether the growth projected to occur in the future, along with the currently proposed project, would result in significant cumulative impacts related to water quality, groundwater supplies or groundwater recharge, drainage, sea level rise, and implementation of a water quality control plan or sustainable groundwater management plan.

The proposed project would result in water quality impacts related to construction activities in and over the waters of Lower San Francisco Bay, including dredging activities. Water quality impacts could include increases in turbidity; disturbance and release of contaminated sediments; or accidental release of hazardous materials such as diesel fuel from construction equipment. The accidental discharge of pollutants into surface waters could violate water quality objectives in the Basin Plan for pollutants. However, the proposed project's contribution to cumulative impacts from construction would not be cumulatively considerable because water quality impacts related to construction would be temporary. Additionally, construction of the proposed project would implement water quality control measures required for compliance with existing regulations and required permits from USACE, USEPA, RWQCB, and BCDC, as well as coordination with DMMO, thereby minimizing the potential for the project to adversely affect water quality. During operations, the proposed project would result in water quality impacts to the

Bay from maintenance dredging, stormwater discharges, spills, or litter. However, maintenance dredging activities for the project would be small and infrequent; the USACE is currently conducting maintenance dredging within the limits of the USACE channel annually under permits coordinated through the DMMO and has an authorized dredging dept of -30 feet MLLW. The Port would conduct periodic maintenance dredging for ferry operations to a depth of -12 feet MLLW for the area beyond the limit of the USACE channel. The proposed project would be designed to capture and treat all stormwater runoff in compliance with the necessary permits. In addition, the vessels would be refueled at other existing facilities and not at the new ferry terminal, which would reduce the risk of an accidental discharge of fuel oil into Redwood Creek and Westpoint Slough. The Lower San Francisco Bay is a waterbody that is 303(d)-listed for water quality impairments (pesticides, toxics, and debris); construction and operation of the proposed project, with compliance with applicable permitting measures and regulatory requirements, would not further contribute to degradation of water quality. Therefore, implementation of the proposed project would not result in a violation of water quality standards or waste discharge requirements or otherwise substantially degrade ground water quality. As discussed in Section 3.0.4.1 of the Introduction to Chapter 3, the Redwood City General Plan forecasts a nearly 20 percent population growth for the City between 2020 and 2040, which would spur new development within the City. Development near or adjacent to the waters of Lower San Franscisco Bay could have the potential to degrade water quality of the Bay during construction or operations. However, as previously discussed, any future development within the City would be required to meet all City regulations and plans to minimize impacts to water quality. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to water quality. The proposed project's contribution to an individual effect would not be cumulatively considerable.

With the possible exception of pile driving activities, groundwater would not be encountered during construction at the project site. Given there are no existing users of groundwater at the project site and the proposed project's proximity to the tidal zone and at the downstream end of the aquifer, there would be no impacts to recharge of the aquifer. The proposed project would install potable water and irrigation lines connected to the municipal water system and would not utilize groundwater supplies; the groundwater in the project area is not used as a source of potable water. Further, a dewatering plan would be prepared prior to construction to prevent polluted groundwater from entering surface waters. Therefore, implementation of the proposed project would not result in a substantial decrease of groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Future population growth would spur new development, which may encounter groundwater during construction. However, any future development would be required to adhere to the dewatering requirements of Attachment J of the Construction General Permit. Additionally, future development would be required to comply with NPDES regulations, which may include implementing BMPs or designing stormwater management facilities that allow for the infiltration of stormwater into the ground, thereby allowing for groundwater recharge. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to groundwater supplies and groundwater recharge. The proposed project's individual contribution to cumulative impacts would not be cumulatively considerable.

Implementation of the proposed project would result in an increase in impervious surfaces on the project site and therefore would increase the amount of runoff from the project site. However, during construction, BMPs associated with the SWPPP and regulatory permits would be implemented to reduce

runoff. Additionally, stormwater management facilities on the project site would be designed to the appropriate size to meet capacity and regulatory requirements and may include: detention basins that infiltrate stormwater, bioswales, or underground storage and infiltration facilities. This would reduce the potential to impact water quality to less than significant. During operations, compliance with LID requirements required by the NPDES MS4 Permit would reduce stormwater discharges and treat runoff prior to discharge. Raising the elevation of the project site by approximately 7 feet would reduce the risk of flooding. Therefore, implementation of the proposed project would not result in substantial alteration to the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. Future population growth would spur new development, which would increase impervious surfaces and alter the existing drainage system, thereby increasing stormwater runoff. However, development would be required to implement a SWPPP and the associated BMPs during construction and comply with LID requirements during operation to reduce runoff. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to alteration of the existing drainage pattern. The proposed project's contribution to an individual effect would not be cumulatively considerable.

The project site is currently located in a Zone AE flood hazard area. However, the project site would be elevated by approximately 7 feet above the base elevation of the flood hazard area and sea level rise predictions. Any hazardous materials stored in the maintenance building would be in small quantities and stored in accordance with regulations to prevent accidental release. The project site is buffered by Bair Island and other islands, thus lowering the probability of seiche-induced impacts. The project site is not within a County flood evacuation zone and the risk of a tsunami occurring is considered low. Therefore, the implementation of the proposed project would not result in a significant impact related to development within a flood hazard, tsunami, or seiche zone, and risk release of pollutants due to project inundation including in the future due to sea level rise. Forecasted population growth and development within Redwood City would be exposed to similar risks of seiche- and tsunami-induced impacts as the project site; development would be buffered by islands, and the risk of a seiche or a tsunami is considered low for the area. Much of the City areas near or adjacent to the Lower San Francisco Bay are within a Zone AE flood zone area and are at risk from sea level rise. To address risks from sea level rise, the City has partnered with the Flood and Sea Level Rise Resiliency District (OneShoreline) to implement mitigation projects.[119] Additionally, development within areas at risk from sea level rise would comply with the priority adaptation strategies to address the flood hazards outlined in the Sea-Level Rise Study. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to sea level rise. The proposed project's contribution to an individual effect would not be cumulatively considerable.

The Santa Clara Valley Basin is considered very low priority under the SGMA and is not required to have a Groundwater Sustainability Plan. Therefore, the construction and operation of the proposed project

[119] City of Redwood City. 2025. Sea Level Rise webpage. Available: https://www.redwoodcity.org/departments/public-works/water/sea-level-rise. Accessed September 10, 2025.

would not conflict with or obstruct implementation of a sustainable groundwater management plan. During construction, the proposed project would comply with the Basin Plan surface and groundwater discharge prohibitions, pollution prevention requirements, and strategies. The design of the stormwater systems would comply with applicable regulations to reduce stormwater discharge from the project site. Therefore, the implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The majority of the City is also located within the Santa Clara Valley Basin; new development in the City would therefore not conflict with or obstruct implementation of a sustainable groundwater management plan. Future development in the City would comply with the Basin Plan. The forecasted growth coupled with the proposed project would therefore not result in significant impacts related to implementation of a water quality control plan or sustainable groundwater management plan. The proposed project's contribution to an individual effect would not be cumulatively considerable.

Therefore, the forecasted growth and increased stormwater generation coupled with the proposed project would not result in significant impacts related to hydrology and water quality. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.9.5.6.1 Mitigation Measures

No mitigation is required.

3.9.5.6.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to hydrology and water quality would be less than significant.

3.9.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts related to hydrology and water quality associated with construction and operation of the proposed project.

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Section 3.10
Land Use

3.10.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to land use and planning, and the impacts from implementation of the proposed project.

As discussed in the Initial Study (IS), provided in Appendix A, Notice of Preparation (NOP)/IS, of this Draft EIR, the proposed project would not physically divide an established community. Consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 15128, this analysis is available for review in Appendix A, and it is also summarized in Chapter 5, Other CEQA Considerations. Accordingly, analysis of this threshold is not repeated here. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.10.2 Methodology

Following CEQA Guidelines Section 15125(d), this assessment of land use and planning effects of the proposed project focuses on the proposed project's inconsistencies with goals and objectives presented in applicable land use plans, policies, and regulations (e.g., general plans, specific plans, zoning codes) adopted by the regional and local jurisdictions. The emphasis of the analysis is on plan consistency and potential conflicts between the proposed project and existing land use plans, policies, and regulations adopted to avoid or mitigate environmental effects. The proposed project is considered consistent with the provisions of the identified State, regional, and local plans if it meets the general intent of the applicable land use plans. The proposed project need not be in perfect conformity with each and every policy, nor does State law require precise conformity of a project with every policy or land use designation for a site.[1] Inconsistencies with land use policies are not by themselves a significant environmental impact; the inconsistency would have to relate to an environmental issue to be considered significant under CEQA. Further, inconsistencies are only considered significant impacts if the inconsistencies result in significant adverse effects on the physical environment not analyzed in the other resource sections of the EIR. Under CEQA Guidelines Section 15002(g), a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. The analyses herein provide an overview of the most relevant policies and development standards from the various planning documents and provides a consistency conclusion based upon the specific policies presented, as well as each planning document in its entirety.

[1] San Francisco Tomorrow et al. v. City and County of San Francisco (2014) 229 Cal.App.4th 498; Sierra Club v. County of Napa (2004) 121 Cal.App.4th 1490; San Franciscans Upholding the Downtown Plan v. City & County of San Francisco (2002) 102 Cal.App.4th 656; Sequoyah Hills Homeowners Assn. V. City of Oakland (1993) 23 Cal.App.4th 704, 719.

3.10.3 Existing Conditions

3.10.3.1 Regulatory Setting

3.10.3.1.1 Federal

There are no federal regulations or policies regarding land use and planning applicable to the proposed project.

3.10.3.1.2 State

California Government Code

California Government Code Article 5, "Authority for and Scope of General Plans" [Section 65300 - 65303.4] requires that each city adopt a General Plan with eight mandatory elements to guide the city's long-term growth. Mandatory elements dictated in Section 65302 and required for each city's general plan are land use, circulation, housing, conservation, open space, noise, safety, and environmental justice.

California State Lands Commission

Under existing law, the State Lands Commission (SLC) has jurisdiction over certain public lands in the State, including tidelands and submerged lands. The SLC oversees sovereign land granted in trust to approximately 70 local jurisdictions, which are predominantly prime waterfront lands, coastal waters, and the lands underlying California's major ports.[2] These lands are managed in accordance with the Public Trust Doctrine, which is a legal doctrine that governs the use of tidelands and submerged lands. Public trust lands are required to be used for public trust purposes, which include navigation, fisheries, waterborne commerce, natural resource protection, and water-related uses that attract the public to use and enjoy the waterfront. Other activities generally permitted on public trust lands include hotels, water-oriented recreation, restaurants, visitor-serving retail, and parks and open space.

In 1945, SLC granted the City of Redwood City all sovereign tide and submerged lands within Redwood Creek for the establishment and operation of a harbor, including aviation facilities, and facilities necessary or convenient for commerce and navigation.[3] In 1961 and 1963, the City was granted sovereign lands in Redwood Creek referred to as Deepwater Slough for the establishment and operation of a harbor, including aviation facilities, and facilities necessary or convenient for commerce and navigation by air or water, and for the construction, maintenance, and operation of flood control projects.[4]

McAteer-Petris Act

The McAteer-Petris Act enacted in 1965 (California Government Code Sections 66600 – 66694) established the San Francisco Bay Conservation and Development Commission (BCDC) and required the BCDC to prepare a plan for the conservation of San Francisco Bay and the development of its shoreline. The Act gives the BCDC the power to limit fill of the Bay, promote public access, prepare for rising sea levels, conduct comprehensive planning, and issue and deny permits within its jurisdiction.

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[2] California State Lands Commission (CSLC). 2024. About the California State Lands Commission. Available: https://www.slc.ca.gov/about/. Accessed October 21, 2024.

[3] CSLC. 2024. City & Port of Redwood City webpage. Available: https://www.slc.ca.gov/granted-public-trust-lands/grantees/redwood-city/. Accessed October 21, 2024.

[4] CSLC. 2024. City & Port of Redwood City webpage. Available: https://www.slc.ca.gov/granted-public-trust-lands/grantees/redwood-city/. Accessed October 21, 2024.

Senate Bill 535: Disadvantaged Communities

Senate Bill (SB) 535, which was signed into law in 2012, established requirements to fund investments to "Disadvantaged Communities." The legislation gave the California Environmental Protection Agency (CalEPA) the responsibility for identifying those communities, based on geographic, socioeconomic, public health, and environmental hazard criteria.[5] CalEPA released a final designation of Disadvantaged Communities in 2022. The project area is not within a designated Disadvantaged Community.[6]

3.10.3.1.3 Regional/Local

Bay Area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Association of Bay Area Governments (ABAG) is the regional planning agency and council of governments for the nine-county San Francisco Bay Area, which includes San Mateo County and Redwood City. The Metropolitan Transportation Commission (MTC) is the transportation planning, financing, and coordinating agency for the same region and is jointly responsible with ABAG for regional planning and development of the long-range regional transportation plan. ABAG's and MTC's Plan Bay Area 2050+ is the Bay Area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). As described in Chapter 3.0, Plan Bay Area 2050+[7] is the latest long-range plan and a limited and focused update of Plan Bay Area 2050,[8] adopted in 2021 (see Section 3.0.4.2.2 of the Introduction to Chapter 3). Plan Bay Area 2050+ was prepared by MTC in partnership with ABAG, the Bay Area Air Quality Management District, and the BCDC, and adopted by the ABAG on March 19, 2026, and the MTC on March 25, 2026. The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by the California Air Resources Board. Plan Bay Area 2050+ provides a framework for a future vision of the region that includes strategies for public investment and policy reform; forecasts and assumptions for the region for population and job growth, sea level rise, and other trends; and identifies areas within the region where housing and job growth should be focused. An overarching goal of Plan Bay Area 2050+ is to concentrate development in designated Growth Geographies, including:

- Priority Development Areas (PDA) – Areas generally near existing job centers or frequent transit that are locally identified for housing and job growth;
- Priority Production Areas (PPA) – Industrial areas that are important to the regional economy and local middle-wage job growth. Like PDAs, PPAs are identified by local governments;
- Transit-Rich Areas (TRA) – Places near rail, ferry or frequent bus service that were not already identified as PDAs, including all areas outside PDAs subject to MTC's Transit-Oriented Communities Policy; and

[5] California Office of Environmental Health Hazard Assessment. 2026. SB 535 Disadvantaged Communities webpage. Available: https://oehha.ca.gov/calenviroscreen/sb535. Accessed August 13, 2026.

[6] California Environmental Protection Agency (CalEPA). 2022. SB 535 Disadvantaged Communities (2022 Update). Available: https://calepa.ca.gov/envjustice/ghginvest/. Accessed April 4, 2025.

[7] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[8] MTC and ABAG. October 2021. Plan Bay Area 2050. Available: https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

- High-Resource Areas (HRA) – State-identified places with well-resourced schools, transit service and access to jobs, among other criteria.

Plan Bay Area 2050+ anticipates that Growth Geographies will contain 96 percent of new households and 72 percent of new jobs. Plan Bay Area 2050+ supports allowing greater commercial densities in Growth Geographies given their location near areas of increased housing production or high-frequency transit.[9] MTC and ABAG encourage growth within Growth Geographies by supporting local planning efforts, advancing regional policies, and funding infrastructure investments to support infill development. Additionally, Plan Bay Area 2050+ includes a potential path forward for future infrastructure to improve the transportation system and protect communities from rising sea levels.

The project site is not located within a PDA, PPA, HRA, or TRA. The nearest PDA is the Broadway/Veterans Boulevard Corridor, which is approximately 2 miles south of the project site. The nearest PPA is located in Union City. The nearest HRA is located approximately 2.5 miles west of the project site. The nearest TRA is located adjacent to the southern boundary of the project site.

A parallel effort, Transit 2050+,[10] was conducted to create a comprehensive regional transit network concept and to update the Plan Bay Area 2050 transportation strategies. Plan Bay Area 2050+ includes a Transportation Project List,[11] available as a separate report, that identifies funding programs to support regional transit and specific transportation improvement projects over the next 25 years, including proposed near- and long-term investments in transit, highways, bicycle/pedestrian improvements, climate strategies, and other regional/local programs. The listed funding programs include the implementation of a new ferry service between Oakland and Redwood City with a new terminal in Redwood City and an opening period identified as 2036 – 2050.

In 1987, a Senate bill was passed directing ABAG to develop a plan for a regional trail system, including a specific alignment for the Bay Trail; a planned 500-mile walking and cycling path around the entire San Francisco Bay.[12] The Bay Trail now has 355 miles of walking and bicycling paths encircling the Bay. There are two segments of the Bay Trail in the project area, the Pacific Shores Marina segment and the Westpoint Harbor segment. The Pacific Shores Marina segment is 1.89 miles of paved trail along the eastern side of Seaport Boulevard from Seaport Court to the entrance of the Pacific Shores Center, where it then follows the eastern boundary of the Pacific Shore Center to the waterfront park and then extends west along the water's edge toward the project site. It terminates approximately 350 feet east of the project site with a connection to the waterfront park parking lot and a short unpaved trail that terminates near the project site. The Westpoint Harbor segment of the Bay Trail connects to the Pacific Shores Marina segment and extends east from the waterfront park around the Westpoint Marina basin.[13]

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[9] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[10] MTC. March 2026. Transit 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Transit_2050_Plus_Report.pdf?cb=29b3ff08.

[11] MTC and ABAG. March 2026. Transportation Project List Report. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_Transportation_Project_List_Report.pdf?cb=9ba7b9c8.

[12] ABAG. 2024. San Francisco Bay Trail webpage. Available: https://abag.ca.gov/our-work/projects/san-francisco-bay-trail. Accessed October 23, 2024.

[13] MTC. Bay Trail Interactive Map. Available: https://mtc.ca.gov/operations/regional-trails-parks/san-francisco-bay-trail/bay-trail-interactive-map. Accessed June 2024.

Metropolitan Transportation Commission Transit-Oriented Communities Policy

The MTC's TOC Policy was adopted in 2022 and supports transit investments by creating communities around transit stations and along transit corridors.[14] The TOC Policy applies to the half-mile area around existing and planned fixed-guideway transit stops and stations (i.e., regional rail, commuter rail, light rail transit, bus rapid transit, and ferries). Compliance with the TOC Policy is voluntary for advancing goals of Plan Bay Area 2050 or to be eligible for some types of MTC discretionary funding. To be considered for compliance with the TOC Policy, jurisdictions are evaluated for compliance with specified requirements for each TOC area within the jurisdiction.[15] Requirements include ensuring that local planning policies and zoning regulations enable new development within TOC areas to be built at sufficiently high (minimum) densities, address parking management, first-last mile connections, and transit station access.

The TOC Policy applies to commercial development that supply off-street parking within a half-mile area around existing and planned fixed-guideway transit stops and stations (i.e., regional rail, commuter rail, light rail transit, bus rapid transit, and ferries).[16] Under the TOC Policy, ferry terminals are considered a Tier 4 level of transit service. Thus, relevant Tier 4 development standards would apply to the proposed project.

Due to the proposed project not involving any residential uses, residential policies do not apply to the proposed project. The individual policies under the TOC Policy that apply to the proposed project include vehicle parking and bicycle parking requirements for new commercial development, where a maximum of four parking spaces are allowed per 1,000 square feet, and a minimum of 1 secure bicycle parking space is required per 5,000 square feet of commercial office space.[17] It is important to note that the vehicle and bicycle parking requirements apply to different land use types; the vehicle parking requirements apply to new commercial development (e.g., office, hotel, restaurant), while the bicycle parking requirements apply to new commercial office development only. The parking maximums are intended to ensure that new development is transit-supportive. There are no parking requirements under the TOC Policy that apply to the amount of parking spaces required for the proposed ferry terminal. As discussed in Chapter 2, Project Description, the proposed project would change project site zoning from the existing GI classification to CG (General Commercial). The CG classification would permit a hotel, an administrative or professional office of less than 10,000 square feet, sales of merchandise, and commercial passenger terminal facilities. Restaurants and bars would be permitted as a conditional use. These permitted uses constitute commercial development that would trigger the vehicle parking requirements. One permitted use, an office of less than 10,000 square feet, would constitute commercial office development that would trigger the bicycle parking requirements. This analysis therefore considers the applicability of both the vehicle and bicycle parking requirements to the proposed project.

[14] MTC. September 2023. MTC's Transit-Oriented Communities Policy. Available: https://mtc.ca.gov/planning/land-use/transit-oriented-communities-toc-policy.

[15] MTC. April 2024. MTC Administrative Guidance: Transit-Oriented Communities Policy. Available: https://mtc.ca.gov/sites/default/files/documents/2026-04/MTC_TOC_PolicyAdministrativeGuidanceApril2026.pdf?cb=99e5fc83.

[16] MTC. September 2023. MTC's Transit-Oriented Communities Policy Resolution No. 4530. Available: https://mtc.ca.gov/sites/default/files/documents/2023-11/MTC_Resolution_4530.pdf.

[17] MTC. September 2023. MTC's Transit-Oriented Communities Policy Resolution No. 4530. Available: https://mtc.ca.gov/sites/default/files/documents/2023-11/MTC_Resolution_4530.pdf.

San Francisco Bay Conservation and Development Commission

The BCDC is a State agency with land use planning and regulatory authority over San Francisco Bay and the Suisun Marsh. Established by the McAteer-Petris Act, BCDC has five jurisdictions including the San Francisco Bay, the shoreline band, salt ponds, managed wetlands, and certain waterways. At the project site, BCDC has jurisdiction over the Redwood Creek Channel and water bordering the site, and the shoreline along the site and 100 feet inward from the shoreline.[18] Specific BCDC plans and policies are discussed below.

Bay Conservation and Development Commission San Francisco Bay Plan

The San Francisco Bay Plan (Bay Plan) was completed and adopted by the BCDC in 1968 and most recently updated in 2025.[19] The Bay Plan was submitted to the Legislature and the Governor of California in 1969, where revisions were enacted into the McAteer-Petris Act designating the BCDC as the permanent agency responsible for carrying out the Bay Plan. The jurisdiction of the Bay Plan includes the San Francisco Bay, the shoreline band 100 feet above mean high tide, salt ponds, managed wetlands, and certain waterways that include Redwood Creek. At the project site, BCDC has jurisdiction over the Redwood Creek Channel and water along the site, and a 100-foot strip of shoreline along the northern and western edges of the project site.

The Bay Plan designates certain areas as Priority Use Areas (PUA) for ports, water-related industry, airports, wildlife refuges, and water-related recreation which are to be reserved for those purposes. Specific policies are identified for the PUAs that are enforceable and have the same authority as the policies in the text of the Bay Plan. There is one Port PUA containing the project site, Redwood Creek East. There are two Wildlife Refuge PUAs nearby the project site — to the northwest of the site approximately 1,300 feet across Redwood Creek is the Bair Island/Redwood Shores Ecological Reserve PUA and to the east of the project site approximately 800 feet across Westpoint Slough is the South San Francisco Bay PUA. The policies for the Port PUAs include:

1. Port planning and development should be governed by the policies of the Seaport Plan and other applicable policies of the Bay Plan. The Seaport Plan provides for:
    a. Expansion and/or redevelopment of port facilities at Benicia, Oakland, Redwood City, Richmond, and San Francisco, and development of new port facilities at Selby;
    b. Further deepening of ship channels needed to accommodate expected growth in ship size and improved terminal productivity;
    c. The maintenance of up-to-date cargo forecasts and existing cargo handling capability estimates to guide the permitting of port terminals; and
    d. Development of port facilities with the least potential adverse environmental impacts while still providing for reasonable terminal development.

[18] San Francisco Bay Conservation and Development Commission (BCDC). 2024. BCDC's Jurisdiction webpage. Available: https://bcdc.ca.gov/resources/jurisdiction/#shoreline-band. Accessed October 23, 2024.

[19] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

2. Some filling and dredging will be required to provide for necessary port expansion, but any permitted fill or dredging should be in accord with the Seaport Plan.
3. Port priority use areas should be protected for marine terminals and directly-related ancillary activities such as container freight stations, transit sheds and other temporary storage, ship repairing, support transportation uses including trucking and railroad yards, freight forwarders, government offices related to the port activity, chandlers, and marine services. Other uses, especially public access and public and commercial recreational development, should also be permissible uses provided they do not significantly impair the efficient utilization of the port area.

Meanwhile the primary purpose of Wildlife Refuge PUAs is the protection of threatened or endangered native species, preservation and enhancement of unique habitat types or significant wildlife habitat, and the propagation and feeding of aquatic life and wildlife.

The Bay Plan has "Plan Maps" that show how to apply the Bay Plan policies and identify the shoreline PUAs. The project area is part of Plan Map 6, Central Bay South, and has one associated policy, Policy 9, for ports which is listed below in **Table 3.10-1**.

Table 3.10-1 BCDC San Francisco Bay Plan Policy for Redwood Creek East PUA

Plan Map and Policy Number	Policy Text
Plan Map 6: Policy 9	**Port** – See Seaport Plan. Expand marine terminals and water-related industries. Some fill may be needed.

Source: San Francisco Bay Conservation and Development Commission (BCDC). Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

Within the Bay Plan, a variety of public access policies are identified that regulate how public access should be encouraged, designed, and maintained within BCDC's jurisdiction. Public access policies that are applicable to the proposed project include:

- Policy 9 – In some areas, a small amount of fill may be allowed if the fill is necessary and is the minimum absolutely required to develop the project in accordance with the Commission's public access requirements.
- Policy 10 – Access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available. Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.

The Bay Plan also has Port Policies that apply to all ports which identify that port planning and development should be governed by the policies of the San Francisco Bay Area Seaport Plan (Seaport Plan) and other applicable policies of the Bay Plan. The Seaport Plan is discussed below.

San Francisco Bay Area Seaport Plan

The Seaport Plan is part of the Bay Plan and is used by BCDC to help guide coordination of the planning and development of the five seaports located in the Bay Area, including the Port of Redwood City.[20] Within the Seaport Plan, Port PUA boundaries are defined and policies are outlined for cargo forecast, PUAs,

[20] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

climate change, environmental justice, and coordination.[21] The property within the Port's jurisdiction that includes the project site is identified in the plan as being located within the Redwood City Port PUA.

Specific policies in the Seaport Plan relevant to the proposed project are in the Preserving and Enhancing PUAs section of the Seaport Plan and are listed below:

- **Policy 1 – Preserving Port Priority Use Areas.** Port Priority Use Areas should be protected and reserved for port purposes, as defined in Finding A of this section, and other uses that would not impair existing or future use of the area for port purposes. Potentially allowable interim and non-port uses are described in additional policies below.
- **Policy 3 – Adding or Removing Port Priority Use Areas.** Requests for a Bay Plan Amendment to add or remove Port Priority Use Areas may be requested as provided in the McAteer-Petris Act (Government Code 66652) and Public Resource Code 14 CCR § 11000, and should be evaluated by the [Seaport Planning Advisory Committee] SPAC, which may make an advisory recommendation to the Commission. A request to add or remove Port Priority Use Areas should:
    a. Include a justification. The justification should analyze the need for the Port Priority Use Area based on meeting the regional Cargo Forecast, the feasibility of using the site for maritime purposes in the future, and whether removal of the Port Priority Use Area would increase pressure to fill the Bay for Port use.
    b. Requests to remove Port Priority Use Areas should not occur unless the person or organization requesting the deletion can demonstrate to the satisfaction of the Commission that the deletion does not detract from the region's ability to meet the projected growth in cargo. If the request is to remove a designated Marine Terminal (see Table 2 and Table 3 [of the Seaport Plan]), then the justification should demonstrate that the Cargo Forecast can be met with existing marine terminals, and an update to the Cargo Forecast may be first required to ensure the removal would minimize the need for Bay fill.
    c. Include meaningful community engagement and an assessment of consistency with Bay Plan Environmental Justice and Social Equity Policy 4.[22]
    d. Include consultation with the relevant port or property owners.

[21] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

[22] Bay Plan Environmental Justice and Social Equity Policy 4: If a project is proposed within an underrepresented and/or identified vulnerable and/or disadvantaged community, potential disproportionate impacts should be identified in collaboration with the potentially impacted communities. Local governments and the Commission should take measures through environmental review and permitting processes, within the scope of their respective authorities, to require mitigation for disproportionate adverse project impacts on the identified vulnerable or disadvantaged communities in which the project is proposed.

- **Policy 9 – Public Access.** Consistent with BCDC San Francisco Bay Plan Public Access policies, public access uses should be permissible in Port PUAs provided the use does not significantly impair the efficient utilization of the port area. When public access or in-lieu access is required, amenities that enhance the public's access to or understanding about the working waterfront, including visual corridors, temporary access, or other programmatic elements should be encouraged, provided that such proposals are consistent with all applicable BCDC San Francisco Bay Plan Public Access policies [discussed previously].
- **Policy 10 – Passenger Ferries.** Within Port PUAs, passenger ferry terminals and related ancillary uses may be allowed, provided that the development and operations of the ferry facilities do not interfere with ongoing or potential future port-related uses, and navigational and passenger safety can be assured.

Within the Seaport Plan, the Port of Redwood City is identified as a future ferry terminal location.[23]

Certain findings that relate to the policies above are listed below:

- **Finding A – Port Priority Use Areas.** Ports require a flat, expansive waterfront location on navigable, deep-water channels with excellent ground transportation access and services. Such sites around San Francisco Bay are limited and are a regional economic resource that should be protected and reserved as Port Priority Use Areas. Port Priority Use Areas are defined as marine terminals and directly related ancillary activities (see Finding B and Finding H below).
- **Finding B – Marine Terminals.** A marine terminal is defined as any public, private, proprietary, or military waterfront facility utilized for the receipt or shipment of waterborne cargo. For purposes of this plan, a marine terminal includes the wharf, storage area, offices, rail and truck facilities, container freight stations, intermodal container transfer facilities, areas for maintenance of containers or container handling equipment, and other functions necessary to the efficient operation of a terminal; it does not include employee parking.
- **Finding C – Community Engagement and Assessment of Consistency with Bay Plan Environmental Justice and Social Equity Policy.** The Port has had extensive community engagement with the community regarding the ferry terminal. Community engagement was initiated on the visitor-serving uses with a public scoping meeting held on May 15, 2024 for the Draft EIR and will continue throughout the CEQA process and future project approvals. The proposed project is not located in a CalEPA-designated Disadvantaged Community under SB 535, as discussed in **Section 3.10.3.1.2**.[24]
- **Finding D – Consultation with Relevant Port or Property Owners.** The Port, which owns the project site, would initiate the proposed amendment to the Seaport Plan. The Port is actively engaged in consultation with neighboring property owners and lease and easement holders. This includes coordination regarding site access and Seaport Boulevard improvements with the Redwood City and Pacific Shores Center management, lease vacation and site development and site access with

[23] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.
[24] CalEPA. 2002. SB 535 Disadvantaged Communities (2022 Update). Available: https://calepa.ca.gov/envjustice/ghginvest/. Accessed April 4, 2025.

the CEMEX Marine Terminal to the south, and relocation of the railroad tracks with Union Pacific Railroad.

- **Finding H – Ancillary Uses.** Ancillary uses are defined as port-related uses that support the operations of a marine terminal. Examples of ancillary uses include container freight stations, freight rail connections, transit sheds and other temporary storage, ship repairing, support transportation uses including truck parking and railroad yards, freight forwarders, government offices related to the port activity, chandlers, and other related marine services. For the purposes of this plan, uses that impair or detract from the ability of a Port Priority Use Area to handle cargo are not considered ancillary uses. Ancillary uses are an essential component of a functioning port. Some ancillary uses should be located adjacent to marine terminals, while others can be located upland within or outside of Port Priority Use Areas. Ancillary uses therefore generally have an alternate upland location. Port Priority Use Areas designated within the Seaport Plan and Bay Plan are primarily intended to reserve shoreline areas for maritime terminal use, and ancillary uses are a secondary use within the Port Priority Use Area.
- **Finding J – Commercial Recreation and Other Interim Uses.** Commercial recreation is defined by the Bay Plan as facilities specifically designed to attract large numbers of people to enjoy the Bay and shoreline, such as restaurants, specialty shops, and hotels. In certain Port Priority Use Areas, interim uses, which include commercial recreational establishments, may not significantly impair the efficient use of a Port Priority Use Area for port purposes if allowance of such uses are conditioned appropriately through permits to ensure their interim nature. Such interim uses can serve as a source of revenue to the port or landowner and provide a public benefit until the area is needed for Port Priority Uses.
- **Finding M – Passenger Ferries**. Some Port Priority Use Areas may offer locations considered appropriate for the development of ferry terminals. Ferry terminals and ancillary uses, such as parking and transit stop facilities, in port areas require careful planning and design to ensure that ferry use is safe and does not interfere with existing or potential port-related uses. This use should not detract from the ability of the site to be used for cargo handling.

San Francisco Bay Trail Design Guidelines and Toolkit

Created in 2016 by the MTC, the San Francisco Bay Trail Design Guidelines and Toolkit provides the San Francisco Bay region with a design resource applicable to any project that includes the San Francisco Bay Trail. These design guidelines are intended to be complementary to those of BCDC relating to shoreline access.[25]

WETA 2050 Service Vision and Expansion Policy

Adopted in May 2024, the WETA 2050 Service Vision and Expansion Policy[26] describes WETA's vision for the ferry system, the criteria for evaluating routes that enter the project development pipeline, and the roles, responsibilities, and financial commitments of WETA and its partners in enhancing and expanding

[25] San Francisco Bay Trail. June 2016. San Francisco Bay Trail Design Guidelines and Toolkit. Available: https://mtc.ca.gov/sites/default/files/documents/2021-10/Bay-Trail-Design-Guidelines-and-Toolkit.pdf.

[26] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

ferry service over the next 25 years. The 2050 Service Vision and Expansion Policy identifies the following goals, requirements, and commitments:

2050 Service Vision Goals

1. The WETA 2050 Service Vision will grow the ferry network to improve regional connectivity, emergency response and community connections in an equitable, environmentally sustainable, and fiscally responsible manner.
    a. WETA will grow its core network of terminals and routes in the following ways as shown on the Service Vision map:
        i. WETA will enhance existing route frequency to continue growing markets for all day service.
        ii. WETA will expand by implementing the Tier 1 projects from the map including regional priority projects such as those included in regional plans - including Mission Bay and Treasure Island to the San Francisco Ferry Building, Berkeley to San Francisco, and Oakland to Redwood City.
        iii. WETA will explore development of Tier 2 projects from the map to further expand the reach of the ferry system as market demand matures and technologies evolve to overcome current barriers to operating service.
    b. WETA will provide at minimum three types of service on the ferry network:
        i. Local service consisting of short distance trips connecting dense urban hubs.
        ii. Regional service consisting of medium and long-distance trips connecting activity centers.
        iii. Special Event service to major venues with existing terminals.
        iv. WETA will continue to focus on expanding midday, evening, and weekend service offerings to provide more all-day-every-day service availability.
    c. WETA will electrify the ferry system to reduce greenhouse gas emissions by taking the following measures:
        i. WETA will procure electric vessels to operate all routes that are feasible.
        ii. WETA will convert the power source on existing vessels to electric where applicable.
        iii. WETA will implement charging infrastructure at terminals and maintenance facilities.
    d. Through the development of the core network, WETA will expand emergency response reach and capacity.
2. WETA staff will continue working with partners to consider expansion of the Service Vision as follows:
    a. WETA will implement a Pilot Project Program to assist its partners in demonstrating project feasibility by testing new technologies, emerging markets, and service operations business

models. Funding for this pilot program service will primarily come from local agencies and private sources, with some contributions from WETA.

b. WETA will participate as stakeholders and advisors in ferry planning initiated by public and private partners and ensure that water transit on San Francisco Bay is provided as a regionally integrated and coordinated network.

c. Before adding any new routes to the Service Vision staff will return to the Board of Directors for approval.

3. WETA staff is directed to take the necessary actions to implement the Service Vision including the following:

   a. Complete the 2050 Business Plan including implementation planning, financial planning, organizational planning and engagement with stakeholders and the public.

   b. Continue to develop the organization so that it has the skills, expertise, and capacity to deliver the Service Vision effectively.

   c. Seek discretionary and dedicated sources of funding to cover the costs of implementing the Service Vision.

4. WETA staff will update the Service Vision on a periodic basis and in response to changes as noted below.

   a. An update will be completed not less than every five years.

   b. Updates will be completed in response to major changes that materially impact the scope of the Service Vision.

Expansion Policy: Requirements

1. **Project Memorandum of Understanding** – All candidate expansion projects will enter into a Memorandum of Understanding (MOU), executed by the WETA Board and the public governing body of the local partnering jurisdiction(s). Expenses related to the initial feasibility study and business plan will be the responsibility of the local partner. WETA will contribute in-kind staff time as part of the project team. The MOU will be amended and updated accordingly as the project progresses through the development process.

2. **Financial Sustainability** – Major capital investments to expand the WETA system will require a dedicated source of funds to fully subsidize operations for a minimum of 10 years. Operation expense categories include labor and fuel; vessel [Operation and Maintenance] O&M, which includes maintaining a fleet of spare vessels; facility O&M, which includes terminal facilities and their associated upkeep costs; system administration costs, which are required to support the service on an annual basis; and any periodic maintenance dredging work, to maintain operations, if it is required.

   System expansion and enhancement projects will support attainment of both WETA and regional targets for farebox recovery.

3. **Environmental Sustainability** – System expansion and enhancement projects will deploy Zero Emission Vessels (ZEV), if feasible. If ZEVs are not feasible, system expansion and enhancement

projects may use existing vessels in the WETA fleet, if available. All current vessels in the WETA fleet will be replaced with ZEVs upon the end of their useful life. Expansion terminals will be sited in locations that do not require excessive and/or regular on-going dredging work. Expansion routes must not traverse environmentally sensitive open water or shoreline areas.

4. **Service Design** – New expansion routes will include a minimum of 9 daily peak direction weekday trips (3 AM peak period, 3 PM peak period and 3 during the midday or late evening). System expansion and enhancement projects will support attainment of both WETA and regional targets for service productivity.
5. **Fares** – The WETA Board will be solely responsible for adopting fares for services operated by WETA. Fares and fare products for new expansion services will be consistent with WETA's Fare Policy and its zonal system of setting fare rates.

Expansion Policy: Commitments

1. **Vessel Procurement** – WETA will provide funding for the design, procurement, and maintenance of a regional fleet of vessels under WETA ownership and control. The development of system expansion and enhancement projects is subject to availability of vessels in the WETA fleet. WETA reserves the right to deploy its fleet of regional vessels to and from any current and future services at its discretion.
2. **Operation & Maintenance Facilities** – WETA will provide capital funding for central facilities to maintain, repair, and store the regional fleet. The development of system expansion and enhancement projects is subject to the availability of capacity at these facilities.
3. **Terminal Construction** – WETA will leverage available capital funds, including WETA RM3 funds, to secure external funding covering at a minimum 80 percent of new terminal construction costs. External fund sources can include new federal, state, regional, local, or private contributions.
4. **Terminal Operation & Maintenance** – WETA will be responsible for the operation and maintenance of waterside terminal assets (outboard of access control gate). The operation and maintenance of landside terminal assets (inboard of access control gate) will be the responsibility of the partnering land use jurisdiction.
5. **Terminal Rehabilitation & Replacement** – WETA will be responsible for the rehabilitation and replacement of waterside terminal assets. The rehabilitation and replacement of landside facilities will be the responsibility of the partnering land use jurisdiction. System expansion and enhancement projects must demonstrate financial capacity to absorb ongoing terminal rehabilitation and replacement expenses.
6. **Terminal Access** – Local jurisdictions will be responsible for access improvements in the vicinity of terminals and to the landside area of terminal facilities. Infrastructure and programs supporting terminal access will be consistent with WETA's Access Policy, to ensure that terminals are accessible to persons with disabilities.
7. **Transit-Supportive Land Uses** – Transit supportive land use in close proximity to the candidate ferry terminal are encouraged. Candidate terminals should maximize opportunities for high

density residential or other transit-oriented development around terminals, if feasible, to ensure adequate ridership and fare revenue.

8. **Emergency Response** – WETA serves as the coordinator of water-based emergency response activities in the Bay Area in the event of a major disaster or disruptive event. In this capacity, WETA will work closely with the California Office of Emergency Services and/or the United States Coast Guard and will be directed to perform activities coordinated on a regional and state-wide basis. These include deploying WETA's fleet resources to evacuate dangerous areas, to move first responders, and to deliver needed supplies. WETA will coordinate with other regional maritime partners to add to this fleet response, and terminal facilities must have sufficient capacity and facilities to accommodate these partner vessels. All new expansion terminals must be designed and built to Essential Facilities Standards. Emergency service to individual terminals will be guided based on state and regional direction.

Redwood City Charter

Redwood City is a charter city that operates under a city charter[27] which provides legal authority for the City's actions. The Redwood City City Charter established a Port Department to ensure continuity of control, management, and operation of the Port of Redwood City. Control and management of the Port Department is vested in the Board of Port Commissioners (Board). The powers and duties of the Board identified in Section 47f in the City Charter include the following:

- (2) To make provision for the needs of commerce, shipping and navigation of the Port, to promote, develop, construct, reconstruct, alter, repair, maintain, equip and operate all waterfront properties including piers, wharves, sea walls, docks, basins, channels, slips, landings, warehouses, floating and other plants or works, to dredge, and reclaim land, construct, equip and operate terminal trackage with sidings and turnouts and railroad connections between docks, piers, and other Port structures, and connect the same with mainline tracks, and to establish, equip and operate all other facilities or aids incident to the development, protection and operation of the Port, as may be deemed proper and desirable in its judgment, and it may modify its plans from time to time as the requirements of commerce, shipping and navigation may demand, and as part of such development and operation to provide for tugs, dredges, fireboats, barges, cold storage plants, and all other publicly-owned facilities or appliances, incident to the operation of the Port, and of such number and character, and in such places as the Board may deem feasible and proper.
- (3) To take charge of, control and supervise the Port of Redwood City, including all the waterfront properties, and land adjacent thereto, or under water, structures thereon, and approaches thereto, storage facilities and other facilities, and all rights and interest belonging thereto, which are now or may hereafter be owned or possessed by the City of Redwood City.
- (4) To have control and jurisdiction of the area hereinafter defined as the "Port Area," and to make and enforce therein general rules and regulations, to the extent that may be necessary or requisite for Port purposes or harbor development and in carrying out the powers elsewhere vested in the Board…

[27] City of Redwood City. November 8, 2022 (last amended). City Charter. Available: https://www.redwoodcity.org/home/showpublisheddocument/26148/638114540615470000.

Redwood City General Plan

The Redwood City General Plan[28] provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan establishes policies to guide development and conservation through 2030. The State-mandated General Plan elements (Land Use, Circulation, Conservation, Housing, Open Space, Noise, Safety, and Environmental Justice) are organized into five elements under the City's General Plan as follows:

- Built Environment Element
- Housing Element
- Building Community Element
- Public Safety Element
- Natural Resources Element

The General Plan identifies the project site as being in the port industrial center and as having a land use designation of (M) Marina.

The key policies and strategies of the General Plan relevant to this land use impacts analysis of the proposed project are included in **Table 3.10-2**.

Table 3.10-2 Key Land Use Policies and Strategies in the Redwood City General Plan

Goal/Policy Number	Goal/Policy Text
Policy BE-1.8	Require that new projects are integrated as seamlessly as possible into surrounding development, creating extensions of the urban fabric.
Goal BE-21	Maintain the viability of the Port of Redwood City as a center for goods and people movement and large-scale industrial activity.
Policy BE-21.1	Allow for growth and intensification of industrial uses in the Port Industrial Center.
Policy BE-21.2	Ensure efficient and productive use of Port lands.
Policy BE-21.3	Prepare a plan that accommodates a passenger ferry terminal at the Port, and that: ▪ Applies to all of the area immediately adjacent to the ferry terminal; ▪ Facilitates a variety of travel mode connections to various parts of Redwood City; and ▪ Establishes architectural and site planning standards for new buildings.
Policy BE-21.4	Maintain railroad rights-of-way for materials transport and potential transit use.

Source: City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[28] City of Redwood City. October 11, 2010. Redwood City General Plan Built Environment Element. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Redwood City Municipal Code

The Redwood City Municipal Code, organized by Article and Section, contains all ordinances for the City. Chapter 9, Article IV, Adoption of 2022 State Codes, adopts the 2022 California Building Code which contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance.

Redwood City Zoning Ordinance (Zoning Code)

The Zoning Ordinance is a regulatory document that establishes specific standards for the use and development of all properties within the City and regulates the development intensity using a variety of methods, including building height, floor area ratio, minimum lot size, and setbacks. The Zoning Ordinance also indicates permitted and conditionally permitted uses and establishes standards for parking and open space. The Zoning Code for Redwood City is separate from the municipal code and is organized by Article and Section. Relevant permitted uses within each applicable zoning district are described below:

- **Article 16 – Commercial Park District:** Administrative Office; Business Office; Research and Development Office or Lab; Finance Service Office; Professional Office; and Restaurant.
- **Article 19 – General Industrial:** Manufacturing, processing, fabricating, or assembly operations; Wholesale business, storage and warehousing; Railroad yards, freight stations, and trucking or motor terminals; Public utility buildings, substations and service yards; and Parking lots and garages.
- **Article 15 – General Commercial:** Parking lots and garages; Sales or service establishments and sales of new merchandise and equipment; Hotels, motels, nursing homes, nursery schools and day care centers; Administrative, business or professional offices with a gross floor area of less than ten thousand (10,000) square feet; and commercial passenger terminal facilities, including bus or train terminals and ambulance services.
- **Article 18 – Industrial Park**: Administrative, business, and professional offices, the gross floor area of which is less than ten thousand (10,000) square feet; Research and development; Manufacture of precision instruments and devices, such as electric or electronic equipment and appliances; Warehousing and wholesale distribution or storage facilities; Combined retail and wholesale office equipment stores and accessory office supply sales; and business or industrial supply, maintenance, or service establishments.

The project site is currently zoned GI (General Industrial) and the proposed zoning is CG (General Commercial), which is discussed further in the impacts discussion below in **Section 3.10.5**. The zoning classifications adjacent to the project site include CP (Commercial Park) and IP (Industrial Park).

Port of Redwood City 2020 Vision Plan

The Port of Redwood City 2020 Vision Plan (2020 Vision Plan) was finalized on January 8, 2020 and sets a vision for the future for the Port. The 2020 Vision Plan tracks the Port's actual cargo throughput for the

past 20 years, uses a market forecast assessment consistent with the methodology of the Seaport Plan, identifies potential future maritime concepts, and suggests potential marketing efforts.[29]

Within the 2020 Vision Plan, the project site is identified as a Port Priority Use Area, which are areas that are reserved for regional maritime port use and includes maritime terminals and directly related ancillary activities, such as parking, other transit stop facilities, and passenger service uses.[30] Additionally, it was identified that ferry uses are allowable in a Port Priority Use Area.

The 2020 Vision Plan identifies the project site as a ferry terminal area and it describes the site as appearing safe and not interfering with existing or potential port-related uses.[31] At the time of preparation of the 2020 Vision Plan, ancillary uses for the ferry terminal area included parking, other transit stop facilities, and passenger service uses.[32] Additionally, planning issues were identified that related to the proposed project. These included linking the ferry to other commercial/recreational activities in close proximity to the landing, and using the ferry terminal to build economic opportunities for downtown Redwood City and the Port's commercial recreational marina area.[33]

RWCmoves

Adopted in 2018, RWCmoves is Redwood City's Citywide Transportation Plan that envisions a balanced, multimodal transportation network that accommodates all users. The guiding vision is to:

- Promote the best travel experience possible for everyone in Redwood City by creating and maintaining a safe, multimodal, and accessible transportation network.

Through RWCmoves, the City identifies and prioritizes the types of projects and programs that most enhance transportation safety, mobility, equity, and access for everyone traveling in Redwood City. Within RWCmoves, a Commuter Ferry Service was identified as a project within RWCmoves Final List of Signature Projects and Programs. The description of the project identifies the first project as a study and conceptual design with identification of funding partners; a second project is identified as the design and construction of the terminal and coordination with WETA to operate.[34] Goal 2 within the plan is relevant to the proposed project:

- **Goal 2** – Create a walking and bicycling-friendly community that provides a safe, balanced, and convenient transportation system.

RWC Walk Bike Thrive

Adopted in June 2022, RWC Walk Bike Thrive encompasses the Vision Zero Plan, Pedestrian Master Plan, and Bicycle Master Plan identified in RWCmoves, and it helps advance the principles laid out by City

[29] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[30] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[31] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[32] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[33] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[34] City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan.

Council in the Strategic Plan.[35] It does not address ferry services within the document, however, Goal 2 is relevant to the proposed project:

- **Goal 2** – Create a walking and bicycling-friendly community that provides a safe, balanced, and convenient transportation system.

3.10.3.2 Environmental Setting

3.10.3.2.1 Land Use

The baseline for characterizing the existing land use setting is May 2024 when the NOP/IS was published. The Port manages the project site according to several plans and policies identified in **Section 3.10.3.1** above. Current land use for the project site is discussed below and shown in **Figure 3.10-1**.

- **Project site:** The project site was used by the current leaseholder for stockpiling of materials for recycling and sale of concrete base rock. The leaseholder is in the process of clearing and grading the site. The Redwood City General Plan land use map designates the project site as M (Marina). The Marina designation allows for public and private marinas, ferry terminals, and uses complementary to boating and ferry transportation activities. Complementary uses include restaurants, retail shops, and mixed-use housing. This designation allows for a maximum use of 3 stories and a floor area ratio (FAR) of 0.5.

The land uses in the surrounding area are also managed according to plans and policies identified in **Section 3.10.3.1** above. Current land use for the surrounding project area is discussed below and shown in **Figure 3.10-1**.

- **Seaport Boulevard corridor:** The Seaport Boulevard corridor is used to access the Pacific Shores Center, a large office complex. As a transportation corridor, Seaport Boulevard does not have a land use designation. The land use designation of the land east of the Seaport Boulevard corridor is O (Commercial – Office Professional/Technology). This designation allows for small- and large-scale professional offices, office campuses and complexes, and related uses that support these activities. The land use designation of the land west of the Seaport Boulevard corridor is IP (Industrial – Port related). This designation allows for heavy industrial activities requiring large properties and water access for materials loading, storage, and processing, combined with convenient access for trucks, rail, and port berthing facilities.
- **Waterfront park:** The waterfront park is used for recreation. The Redwood City General Plan land use map designates the waterfront park in the project area as O (Commercial – Office Professional/Technology) and OS-SF (Open Space – San Francisco Bay). The Open Space – San Francisco Bay designation includes all natural water features subject to tidal influences, including tidelands and submerged lands of San Francisco Bay. Permitted uses include boating, fishing, and marine-related activities, as regulated by agencies.

[35] City of Redwood City. June 2022. RWC Walk Bike Thrive. Prepared by Fehr and Peers and Eisen Letunic. Available: https://www.redwoodcity.org/home/showpublisheddocument/25615/638016840641870000https://www.redwoodcity.org/home/showpublisheddocument/25615/638016840641870000.

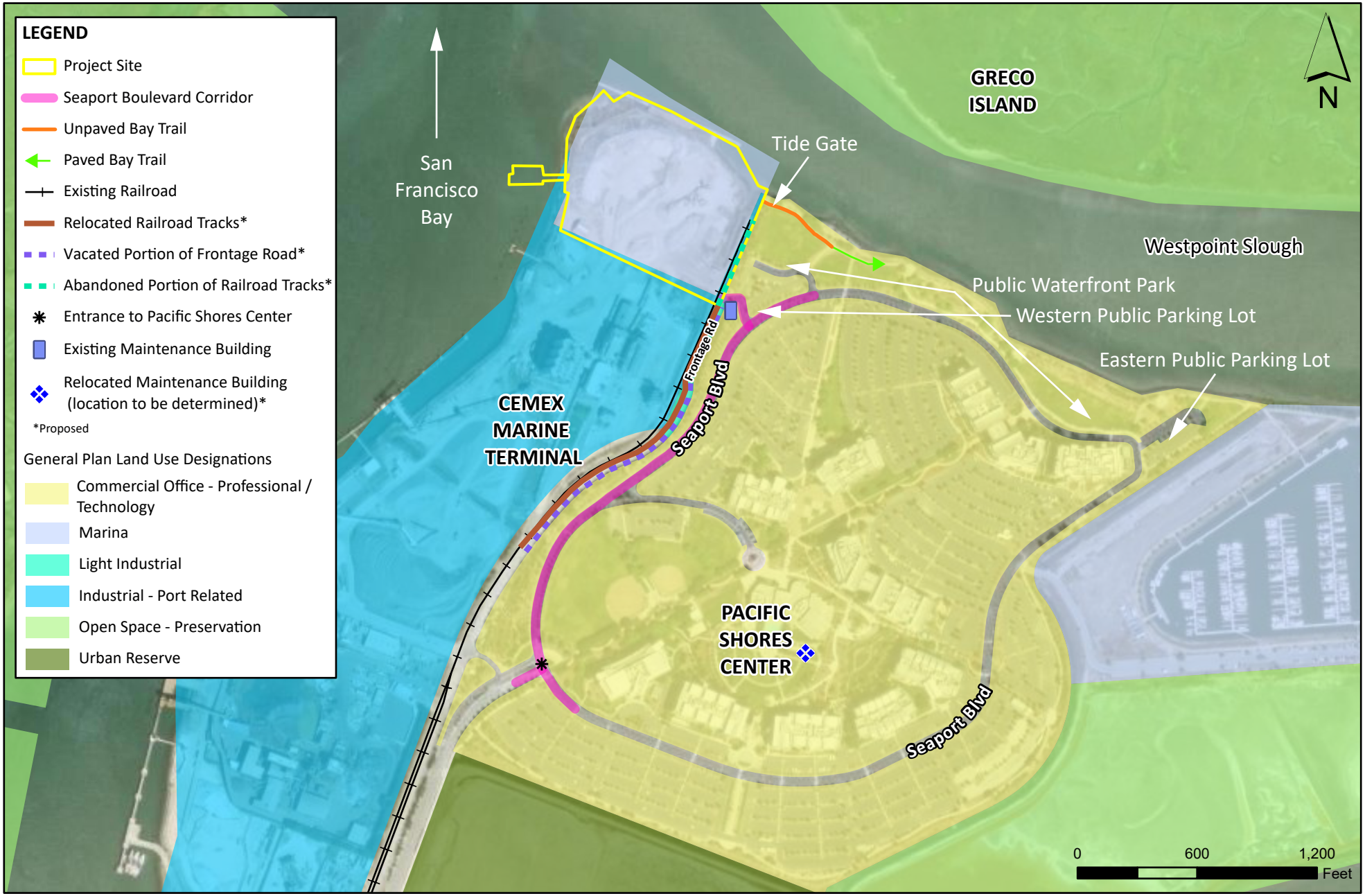


Figure 3.10-1

Port of Redwood City Ferry Terminal Project

GENERAL PLAN LAND USE DESIGNATIONS

- **Western public parking lot and maintenance building site:** The western public parking lot and existing maintenance building site are part of the Pacific Shores Center which has a land use designation of O (Commercial – Office Professional/Technology).
- **Relocated maintenance building site:** The maintenance building would be relocated/reconstructed to a site within the Pacific Shores Center property. The Pacific Shores Center has a land use designation of O (Commercial – Office Professional/Technology).
- **Frontage Road:** As a transportation corridor, Frontage Road does not have a land use designation. The land use designations of the land adjacent to Frontage Road within the project area is M (Marina) to the west and LI (Light Industrial) and O (Commercial – Office Professional/Technology) to the east.
- **Relocated railroad tracks:** As a transportation corridor, the railroad tracks do not have a land use designation. The land use designations of the land adjacent to the existing railroad tracks within the project area is M (Marina) and IP (Industrial – Port Related) to the west and LI (Light Industrial) and O (Commercial – Office Professional/Technology) to the east. The railroad tracks are proposed to be relocated south of the project site within a vacated portion of Frontage Road, which, as described above, also does not have a land use designation.
- **San Francisco Bay (including Redwood Creek and Westpoint Slough):** The water areas within Redwood City, including Redwood Creek and Westpoint Slough, have a land use designation of OS-SF (Open Space – San Francisco Bay).

3.10.3.2.2 Zoning

The current zoning classification for the project site is GI (General Industrial). The GI zoning classification, which applies to the Port property north of Seaport Court, allows uses such as manufacturing, storage and warehouse, public utility buildings, and railroad yards, freight stations, and trucking or motor terminals. Conditional uses include public or quasi-public uses, concrete batch plants, manufacturing involving production from raw materials, and other uses determined to be similar or compatible after a public hearing. The Port uses are consistent with the intent of the GI zoning district described in **Section 3.10.3.1.3**, and under the City Charter, the Board has control and jurisdiction of the Port area and has the authority to operate all waterfront properties as may be deemed proper and desirable to make provisions for the needs of commerce, shipping, and navigation of the Port.

Zoning classifications for the surrounding project area are provided below and shown in **Figure 3.10-2**. The areas within the Port area, and therefore under the Board's authority, are also identified below. Development requirements can be found in Article 15, CG (General Commercial) District and Article 19, GI (General Industrial) District of the City's Zoning Code.

- **Seaport Boulevard corridor:** As a transportation corridor, Seaport Boulevard does not have a zoning classification. The zoning classification of the land east of Seaport Boulevard within the Seaport Boulevard corridor is CP (Commercial Park). The zoning classification of the land west of Seaport Boulevard within the Seaport Boulevard corridor is GI (General Industrial).
- **Waterfront park:** The zoning classification is CP (Commercial Park) and IP (Industrial Park).

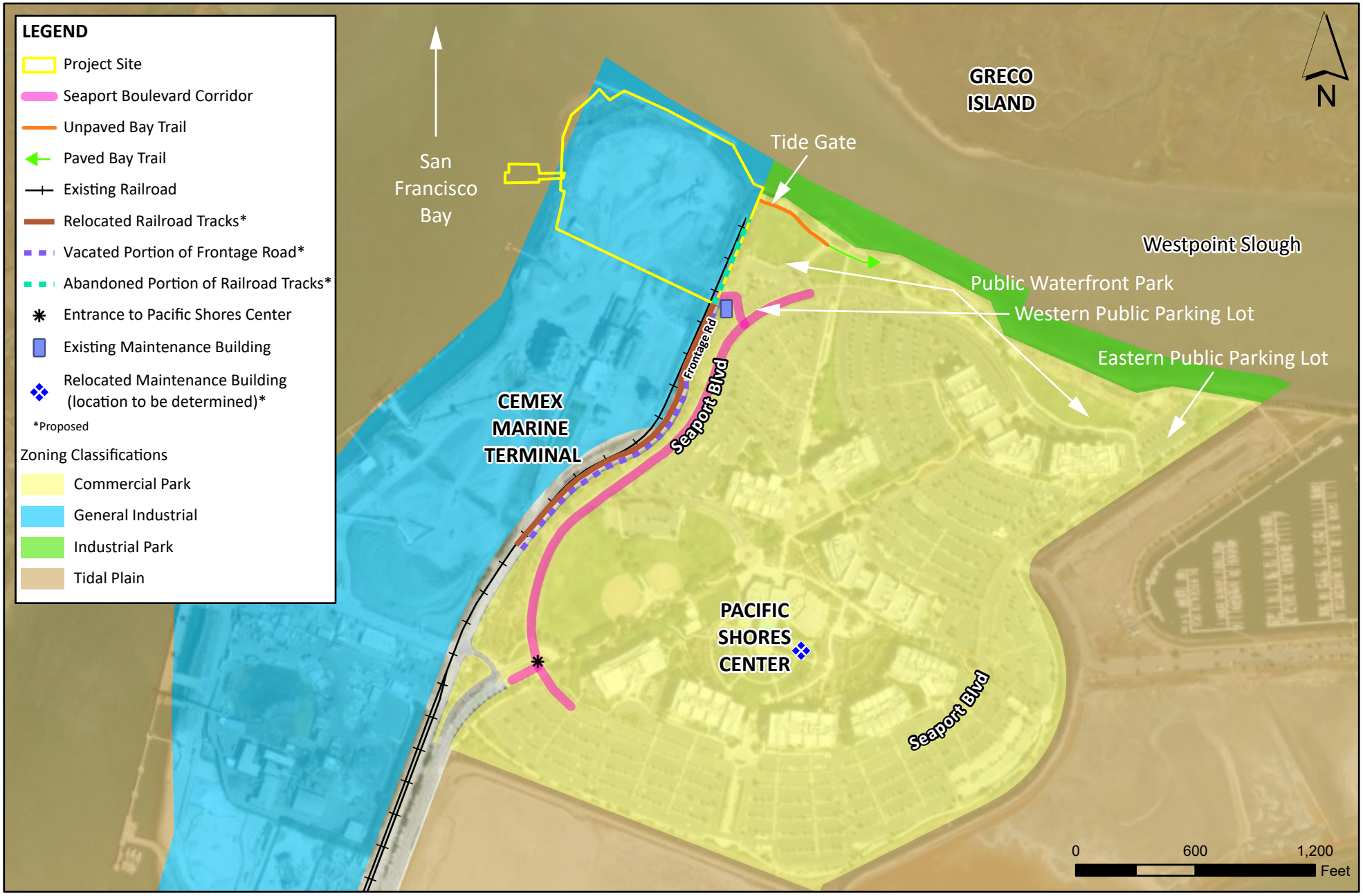


Figure 3.10-2

Port of Redwood City Ferry Terminal Project

ZONING CLASSIFICATIONS

- **Western public parking lot and maintenance building site:** The zoning classification is CP (Commercial Park).
- **Relocated maintenance building site:** The maintenance building would be relocated to a site within the Pacific Shores Center property. The zoning classification for the Pacific Shores Center property is CP (Commercial Park).
- **Frontage Road:** As a transportation corridor, Frontage Road does not have a zoning classification. The zoning classification of the land adjacent to Frontage Road within the project area is GI (General Industrial). Frontage Road is within the Port area.
- **Relocated railroad tracks:** As a transportation corridor, the railroad tracks do not have a zoning classification. The zoning classification of the land adjacent to the existing railroad tracks within the project area is GI (General Industrial) and CP (Commercial Park) to the west and CP (Commercial Park) to the east. The railroad tracks are proposed to be relocated south of the project site within a vacated portion of Frontage Road, which, as described above, also does not have a zoning classification. The relocated railroad tracks are within the Port area.
- **San Francisco Bay (including Redwood Creek and Westpoint Slough):** The water areas within Redwood City, including Redwood Creek and Westpoint Slough, have a zoning classification of TP (Tidal Plain).

3.10.4 Thresholds of Significance

The proposed project would result in significant impacts associated with land use and planning if it would:

Impact 3.10-1: Cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.10.5 Project Impacts

Impact 3.10-1: Would the proposed project cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

3.10.5.1 Construction and Operations

3.10.5.1.1 Ferry Terminal

Public Trust Doctrine

The proposed ferry terminal and access improvements are consistent with the public trust use of the shoreline and the tidelands grant to the City for the establishment, improvement and conduct of a harbor, including docks, piers and other facilities necessary or convenient for commerce and navigation by water. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Public Trust Doctrine. There would be no impact.

Plan Bay Area 2050+

Due to the construction and operation of the ferry terminal being an infill project adjacent to a TRA, the proposed project would occur in an area where there are existing services and infrastructure which

supports the overarching goal of Plan Bay Area 2050+. Additionally, the ferry terminal would create a new ferry service in Redwood City. Plan Bay Area 2050+ has identified this area as an investment location for new ferry service. Therefore, the proposed ferry terminal would not conflict with Plan Bay Area 2050+. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Plan Bay Area 2050+. There would be no impact.

Metropolitan Transportation Commission Transit-Oriented Communities Policy

As identified in **Section 3.10.3.1.3**, under the TOC Policy, the proposed project qualifies as a Tier 4 level of transit service. Specific policies within the TOC Policy which relate to ensuring that new development within TOC areas is built at sufficiently high (minimum) density are the responsibility of the City to adopt and are outside of the jurisdiction of the Port to implement. Applicable specific policies within the TOC Policy that the proposed project would implement are parking and bicycle requirements for commercial uses, as discussed under Visitor-Serving Uses below. The individual policies under the TOC Policy that apply to the proposed project include vehicle parking and bicycle parking requirements for new commercial development, such as the visitor-serving uses, where a maximum of four parking spaces are allowed per 1,000 square feet, and a minimum of 1 secure bicycle parking space is required per 5,000 square feet of commercial office space. Because the TOC Policy applies only to new commercial development surrounding existing or planned transit stops and not to transit stops themselves, the TOC Policy is discussed only under the Visitor-Serving Uses impact discussion below.

Additionally, there would be a Caltrain shuttle service to and from the project site that would provide connectivity to downtown Redwood City and other transit connections, including the SamTrans Redwood City Transit Center which is co-located with the Caltrain Redwood City Station. These connections, along with improved pedestrian and bicycle access and connections to private shuttle access operated by local employers, would ensure that the proposed project would be connected to TOC areas via a variety of transit and multi-modal options. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the TOC Policy. There would be no impact.

Bay Conservation and Development Commission San Francisco Bay Plan

The project site is within the Redwood Creek East PUA. Policy 9 for this PUA, as provided in **Table 3.10-1**, references expanding the marine terminal and water-related industries. The ferry terminal would expand water-related industries in the area, and therefore, the proposed project would not conflict with the policy for the Redwood Creek East PUA.

The operations at the ferry terminal would not encroach into the surrounding PUAs, such as Bair Island/Redwood Shores Ecological Reserve PUA and the South San Francisco Bay PUA. Therefore, the proposed project would be consistent with the Bay Plan's applicable PUA policies.

Within the Bay Plan, a variety of public access policies are identified that regulate how public access to the shoreline should be encouraged, designed, and maintained within BCDC's jurisdiction. The ferry terminal would include site access improvements, including an expansion of the Bay Trail and a new ADA-compliant sidewalk and Class I bicycle path along Seaport Boulevard that would provide improved non-vehicular access to the shoreline at the project site and to the waterfront park to the east. This would be supportive of the Bay Plan's public access policies, including Policy 9 which allows a small amount of fill, such as would occur with the installation of piles to support the ferry terminal float and access pier, and Policy 10, which encourages access being provided to and along the waterfront.

The waterways and a 100-foot strip of the project site along the Redwood Creek and Westpoint Slough shoreline (on the western and northern sides of the project site, respectively) are in BCDC's jurisdiction. The project improvements located within this area would consist of the Bay Trail extension and the ferry terminal. These uses would be consistent with the Bay Plan. Implementation of the ferry terminal would follow these guidelines in areas that are within BCDC's jurisdiction.

Therefore, construction and operation of the ferry terminal would not conflict with these guidelines. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Bay Plan. There would be no impact.

San Francisco Bay Area Seaport Plan

Construction and operation of the ferry terminal would expand water-related uses and would not conflict with the Seaport Plan policies described in **Section 3.10.3.1.3**. The proposed project would not interfere with Port operations or otherwise conflict with the intent of the Port PUA, and no Bay Plan Amendment is necessary for the ferry terminal uses.

Consistent with Policy 9, Public Access, the proposed project would extend the Bay Trail along the water's edge at the northern edge of the project site to the ferry terminal. This addition would encourage the public to use the site and the extension would be built to not significantly impair the efficient utilization of the port area.

Policy 10 of the Seaport Plan details the allowed use of passenger ferries as long as the ferries do not interfere with ongoing or potential future port-related uses and navigational and passenger safety can be assured. Because the proposed ferry terminal would be subject to applicable navigation and safety requirements and would otherwise not interfere with ongoing or future port-related uses, operation of the new ferry terminal would not conflict with Policy 10.

As such, the proposed ferry terminal would be consistent with the San Francisco Bay Area Seaport Plan and the ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Seaport Plan. There would be no impact.

WETA 2050 Service Vision and Expansion Policy

The WETA 2050 Service Vision and Expansion Policy[36] describes WETA's vision for the ferry system, the criteria for evaluating routes that enter the project development pipeline, and the roles, responsibilities, and financial commitments of WETA and its partners in enhancing and expanding ferry service over the next 25 years. The proposed ferry terminal would be supportive of and would not conflict with the goals and expansion policies described in **Section 3.10.3.1.3** for the WETA 2050 Service Vision.

Construction and operation of the ferry terminal would contribute to WETA meeting Service Vision Goal 1, which seeks to grow WETA's ferry network and routes and specifically identifies Redwood City service as a priority project. Within Goal 1, growth in a variety of services for the ferry network are identified, which operations at the proposed ferry terminal would provide. These services include growing the market, expanding regional priority projects, and providing special event services. Additionally, the ferry terminal design would meet WETA's recommended specifications for accommodating electric vehicle

[36] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

charging infrastructure and an on-site battery energy storage system should electric vessels be used for the Redwood City routes in the future, consistent with WETA's goal to electrify the ferry system to reduce greenhouse gas emissions. The new ferry service would also contribute to WETA's goal of expanded emergency response reach and capacity.

Service Vision Goals 2 through 4 address WETA's implementation and updating of the Service Vision, including WETA's partnering with stakeholders and advisors, completion of a 2050 Business Plan, and updating the Service Vision on a periodic basis. The Port is working with WETA as a partner on implementation of the proposed ferry terminal at Redwood City, and as described above, is specifically identified in the Service Vision. The proposed ferry terminal would be supportive of and would not conflict with the Service Vision and the Port would comply with applicable requirements identified in Goals 2 through 4. The proposed construction and operation of the ferry terminal would be consistent with the Service Vision goals.

Construction and operation of the proposed ferry terminal project is consistent with the expansion policy requirements described in the 2050 Service Vision and Expansion Policy. The expansion policy requirements address criteria for WETA's expansion and cooperation with local partnering jurisdictions (e.g., the Port) for expansion routes, including an MOU executed by the WETA Board and local partner, requirements for funding, deployment of ZEVs, and service targets. The Port would cooperate with WETA to meet the policy requirements.

Construction and operation of the proposed ferry terminal project is consistent with the expansion policy commitments identified in the 2050 Service Vision and Expansion Policy. The policy commitments address WETA's and local partners' responsibilities for expanded routes. Commitments for local partners include ensuring terminal access consistent with WETA's Access Policy and providing access to transit supportive land uses. The ferry terminal improvements would include multi-modal access improvements to the project site and would ensure connectivity to downtown Redwood City and the Caltrain Redwood City station and SamTrans Redwood City Transit Center. The construction and operation of the ferry terminal would be consistent with the expansion policy commitments.

As described above, construction and operation of the ferry terminal would not conflict with the WETA 2050 Service Vision and Expansion Policy. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the WETA 2050 Service Vision and Expansion Policy. There would be no impact.

Redwood City General Plan

The ferry terminal would not conflict with policies for land use and planning described in **Section 3.10.3.1.3** and identified in **Table 3.10-2**. The ferry terminal would be consistent with General Plan Policy BE-1.8, which requires that new projects are integrated as seamlessly as possible into surrounding development. The proposed project would integrate with surrounding uses by providing a new public transportation option that connects users to employment centers near the project site, including the Pacific Shores Center, as well as San Francisco and Oakland. The access and Bay Trail improvements would not only improve access for users of the ferry terminal but would connect to existing bicycle trails and the Bay Trail to expand the regional network and improve connections to the waterfront park and the Pacific Shores Center. It would thereby integrate with the surrounding development.

Due to the ferry terminal increasing people's movement capability in the area, the proposed project would not conflict with other Port operations and would be consistent with Goal BE-21, which seeks to maintain the viability of the Port of Redwood City as a center for goods and people movement and large-scale industrial activity. The ferry terminal is also consistent with the applicable policies identified under Goal BE-21 as follows.

As identified in **Table 3.10-2**, the City's General Plan Policy BE-21.1 calls for the for intensification of industrial uses in the Port Industrial Center. The project site is located on the perimeter of the Port. Operation of the ferry terminal would not affect the viability of industrial uses elsewhere in the Port. Therefore, the proposed project would be consistent with General Plan Policy BE-21.2.

Operation of the ferry terminal would be consistent with Policy BE-21.2, which seeks to ensure efficient and productive use of Port lands. Through operations of the ferry terminal, the proposed project would be creating a use at a currently underused site that would bring visitors and employees to the Port and surrounding areas and it would not limit the existing large-scale industrial activity located on other Port properties to the south. Therefore, the proposed project would result in an efficient and productive use of Port lands, in support of General Plan Policy BE-21.2.

As identified in **Table 3.10-2**, the City's General Plan Policy BE-21.3 calls for the preparation of a plan to accommodate passenger ferry services and facilitating a variety of travel mode connections to various parts of Redwood City. As the proposed project would implement site improvements to facilitate the operation of a new passenger ferry service and to provide new bicycle and sidewalk connections and establish shuttle service to provide transit to and from the ferry terminal, the proposed project would be consistent with Policy BE-21.3.

The proposed project would also not conflict with Policy BE-21.4, which involves maintaining the railroad rights-of-way for materials transport and potential transit use. While the proposed project would involve abandonment of the railroad tracks adjacent to the project site, the tracks to be removed are at the terminus and would be replaced by an equivalent length of track constructed south of the project site. The replaced tracks would connect to the existing tracks via a new switch. Therefore, while a portion of the railroad track would be relocated, the total amount of rail track at the Port would not be reduced and would continue to be available for materials transport. Further, the abandonment process would follow necessary regulations and permitting.

Land use designations for the project site and surrounding area are provided in the Redwood City General Plan and summarized in **Section 3.10.3.2.1**. The ferry terminal would be consistent with the site's M (Marina) designation, which allows for ferry terminals and uses complementary to ferry transportation activities, including restaurants, shops, mixed-use housing, and other visitor-serving uses up to three stories. The development of a ferry terminal and associated improvements would be consistent with the land use designation at the site.

The extension of the Bay Trail within the project site would also be consistent with the current land use designation, as the trail would improve access to the ferry terminal and would, therefore, be complementary to ferry transportation activities. The proposed project would also pave the unpaved portion of the Bay Trail in the waterfront park; this would have no impact on the land use designation or the current use of the park. Access improvements, such as widening Seaport Boulevard and relocating the railroad tracks would occur along existing transportation corridors and would, therefore, not affect

existing land use. The existing maintenance building and five associated parking spaces located within the western public parking lot would be removed. The maintenance building would be relocated to another site within the Pacific Shores Center complex. Additionally, one driveway of the western public parking lot and approximately five additional parking spaces would be removed to provide for the access road to the project site. The relocation of the maintenance building and modifications to the western public parking lot would not conflict with the existing land use designation O (Commercial – Office Professional/Technology). As a result, construction and operation of the ferry terminal would not conflict with applicable land use requirements. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Redwood City General Plan. There would be no impact.

Redwood City Zoning Ordinance

The City of Redwood City zoning code is described in **Section 3.10.3.1.3** and the project area zoning is further discussed in **Section 3.10.3.2.2.** As described in **Section 3.10.3.2.2**, the project site, along with most of the Port lands, is currently zoned GI (General Industrial). As also discussed in **Section 3.10.3.2.2**, the Board of Port Commissioners has the authority under the City Charter to operate all waterfront properties to make provisions for the needs of commerce, shipping, and navigation of the Port and therefore, such uses within the Port area, including the ferry terminal and ferry operations, are subject to approval by the Board and are not required to be reviewed for consistency with GI zoning classification.

Similarly, as discussed under the evaluation of visitor-serving uses below, a zone change is proposed from GI (General Industrial) to CG (General Commercial); as discussed above, the approval of the ferry terminal and ferry service uses is under the authority of the Board.

Access improvements, such as widening Seaport Boulevard and relocating the railroad tracks would occur along existing transportation corridors, which do not have a zoning classification. While the widening of Seaport Boulevard would reduce the Commercial Park and Industrial Park zoning classifications on either side of the road, the current uses are a landscape buffer to the west of Seaport Boulevard, and ball fields and parking lots to the east of Seaport Boulevard. The landscape buffer, fields, and parking that would be affected as part of the proposed project would not conflict with the existing zoning classifications as the zoning area would become reduced but would not be redesignated. The access improvements would be designed to avoid adversely affecting the public baseball fields and basketball court located east of Seaport Boulevard and north of the entrance to the Pacific Shores Center. The existing maintenance building in the western public parking lot for the waterfront park which is zoned CP (Commercial Park) would be removed and relocated to another site within the Pacific Shores Center complex with the same zoning classification; thus, there would be no conflict with the zoning classification.

As a result, the construction and operation of the ferry terminal component of the proposed project would not conflict with applicable zoning requirements. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Redwood City Zoning Ordinance. There would be no impact.

Port of Redwood City 2020 Vision Plan

As described in the Port of Redwood City 2020 Vision Plan, the project site has been identified as a ferry terminal area and the area would be safe and would not interfere with existing or potential port-related

uses.[37] Additionally, the 2020 Vision Plan has identified the project area as a ferry terminal. Thus, the proposed use is consistent with the 2020 Vision Plan.

In addition, consistent with the Port's 2020 Vision Plan, the ferry terminal would indirectly assist in building economic opportunities for the Port's commercial areas, such as the Seaport Center Business Park and other commercial establishments south of the Port, by providing an alternative for intra-bay commuting. Therefore, the ferry terminal would not interfere with the 2020 Vision Plan. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the 2020 Vision Plan. There would be no impact.

RWCmoves

The ferry terminal would provide a new transit option for commuters and visitors to and from Redwood City, which is supportive of the guiding vision of RWCmoves to promote the best travel experience for everyone and create and maintain a safe multimodal transportation network. As described in RWCmoves, a Commuter Ferry Service was listed as a project within RWCmoves Final List of Signature Projects and Programs. The proposed project includes the construction of a ferry terminal and operation of a commuter ferry service consistent with the project identified in RWCmoves, and is thereby consistent.[38] Additionally, consistent with RWCmoves goals, a new bicycle trail and expanded Bay Trail would be constructed, which would support the goal for the City to be a walking and bicycling-friendly community by increasing the walking and bicycling opportunities in the area. Therefore, the ferry terminal would not interfere with RWCmoves. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with RWCmoves. There would be no impact.

RWC Walk Bike Thrive

The focus of RWC Walk Bike Thrive is on a Vision Zero Plan, Pedestrian Master Plan, and Bicycle Master Plan. As described above for RWCmoves, the construction and operation of the ferry terminal include a new bicycle trail and expanded Bay Trail, which would be consistent with Goal 2 of RWC Walk Bike Thrive, which is focused on creating a walking and bicycling-friendly community. This goal would be consistent with the proposed project because it would increase the walking and bicycling opportunities in the area.

Therefore, the ferry terminal would not interfere with RWC Walk Bike Thrive. The ferry terminal would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with RWC Walk Bike Thrive. There would be no impact.

3.10.5.1.2 Visitor-Serving Uses

Public Trust Doctrine

The proposed visitor-serving uses would be consistent with the Public Trust Doctrine, which permits hotels, water-oriented recreation, restaurants, visitor-serving retail, and parks and open space on public trust lands. Public trust lands are those lands under the ocean and under navigable streams. As part of the visitor-serving uses, the Shell Unloading Wharf parallel to the shore on Westpoint Slough would be removed. While the Port has been granted control of the public trust lands in Redwood City Creek, the

[37] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[38] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

Port has not been granted control of the public trust lands in Westpoint Slough. Accordingly, the Port would have to attain a permit from the State Lands Commission to remove the abandoned wharf. However, the removal would be consistent with the Public Trust Doctrine. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Public Trust Doctrine. There would be no impact.

Plan Bay Area 2050+

Due to the construction and operation of the visitor-serving uses being an infill project adjacent to a TRA, the proposed project would occur near an area where there are existing services and infrastructure which supports the overarching goal of Plan Bay Area 2050+. While the project site itself does not have existing on-site utilities, there is existing utility infrastructure in the area, including utility lines within Seaport Boulevard, to which the visitor-serving uses would connect. The commercial aspect of the visitor-serving uses would be consistent with Plan Bay Area 2050+ by developing commercial opportunities in proximity to transit. Additionally, the proposed ferry terminal would create another transit option that could connect the visitor-serving uses to other forms of transit present in the adjacent TRA, such as bus, rail, or shuttle connections. Therefore, the visitor-serving uses would be consistent with Plan Bay Area 2050+. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Plan Bay Area 2050+. There would be no impact.

Metropolitan Transportation Commission Transit-Oriented Communities Policy

As identified in **Section 3.10.3.1.3**, under the TOC Policy, the proposed project qualifies as a Tier 4 level of transit service. The voluntary TOC Policy supports transit investments by creating higher-density communities around transit stations and along transit corridors. As discussed for the Ferry Terminal above, some of the specific policies within the TOC Policy are the responsibility of the City to adopt and outside of the jurisdiction of the Port to implement. However, the proposed project would provide vehicle parking and bicycle parking for commercial uses consistent with the TOC Policy, which sets maximum vehicle parking amounts and minimum bicycle parking amounts. For the proposed project, commercial development would include the hotel, restaurant, and office uses that are a maximum total of 210,000 square feet.[39] Under the TOC Policy, this would result in a maximum of 840 parking spaces for the commercial uses.[40]

The precise number of parking spaces for the visitor-serving uses would be determined at the time specific development is proposed. The number of spaces would comply with City parking requirements. The number of spaces provided would be consistent with City parking requirements and is assumed to include shared parking between the ferry terminal and other uses in compliance with the Redwood City Zoning Code, subject to City review and approval. As identified in Chapter 2, Project Description, the parking provided for the visitor-serving uses would meet the minimum City parking requirements but would not exceed four spaces per 1,000 square feet of commercial uses. As stated, a portion of the 250 ferry terminal parking spaces are assumed to be shared with the visitor-serving uses, and this portion of shared spaces would apply to the parking maximum, while the TOC Policy requirement is less stringent, requiring 1 secured bicycle parking space per 5,000 square feet of office use. Consistent with the City's

[39] 180,000 square feet (hotel) + 20,000 square feet (restaurant) + 10,000 square feet (office) = 210,000 total square feet.
[40] 210,000 total square feet/1,000 square feet = 210; 210 x 4 = 840 parking spaces.

recommendations, secure bicycle parking would also be provided for the hotel and restaurant. Short-term bicycle parking would also be provided in compliance with City requirements.

In addition to compliance with the TOC Policy vehicle parking and bicycle parking requirements, the proposed zone change and development of the visitor-serving uses would increase the number of jobs and services located near the ferry terminal, and the project site would have connectivity to downtown Redwood City and other transit connections. Therefore, the visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the TOC Policy. There would be no impact.

Bay Conservation and Development Commission San Francisco Bay Plan

There are no applicable policies within the Bay Plan for the construction or operation of visitor-serving uses. These plans only apply within BCDC's jurisdiction, which is a 100-foot strip of shoreline on the northern and westerns sides of the project site. Construction and operation of the visitor-serving uses would not be within the 100-foot strip of shoreline and would be outside of BCDC's jurisdiction. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Bay Plan. There would be no impact.

San Francisco Bay Area Seaport Plan

As discussed in **Section 3.10.3.1.3**, while commercial recreation and other uses are allowed within a Port PUA, these uses should be of an interim nature. The proposed visitor-serving uses would not be an interim use and, therefore, establishment of the visitor-serving uses would require an adjustment of the PUA boundaries to remove the project site from the PUA. The majority of the Port would remain a PUA and be preserved for Port priority uses, consistent with Policy 1 of the Seaport Plan, which focuses on preserving and protecting PUAs.

Consistent with Policy 3, the PUA removal would follow the process outlined in Policy 3 described above and occur prior to construction of the visitor-serving uses. Therefore, with removal of the project site from the PUA, construction and operation of the visitor-serving uses would not conflict with the San Francisco Bay Area Seaport Plan. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Seaport Plan. There would be no impact.

WETA 2050 Service Vision and Expansion Policy

The goals and policies in the WETA 2050 Service Vision and Expansion Policy would not apply to construction and operation of visitor-serving uses, which does not relate to construction and operation of the ferry terminal. Further, the construction and operation of the visitor-serving uses would not hinder operation of the ferry terminal and may encourage ridership by increasing the number of jobs and services adjacent to the terminal. Therefore, visitor-serving uses would not conflict with any goals or objectives within the WETA 2050 Service Vision and Expansion Policy. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the WETA 2050 Service Vision and Expansion Policy. There would be no impact.

Redwood City General Plan

During construction and operation of the visitor-serving uses, the ferry terminal would be operational. Construction and operation of visitor-serving uses of the proposed project would not conflict with policies for land use and planning described in **Section 3.10.3.1.3**.

The visitor-serving design would be similar to the uses at the Seaport Center Business Park, which is south of the Port, and the Pacific Shores Center to the east of the site, which would support Policy BE-1.8, which requires that new projects are integrated as seamlessly as possible into surrounding development. While there are industrial uses to the south of the project site, the visitor-serving uses would be oriented towards the waterfront and ferry terminal parking lot and a landscape buffer would provide separation from the industrial buildings and activities.

The construction and operation of visitor-serving uses at the project site would assist in facilitating people movement with the establishment of a hotel and restaurant nearby and upgrading the bathrooms at the ferry terminal. These additions to and around the ferry terminal would support the ferry service and maintain the area as a center for people movement. Therefore, the construction and operation of visitor-serving uses would not conflict with Goal BE-21, which seeks to maintain the viability of the Port of Redwood City as a center for goods and people movement and large-scale industrial activity. The visitor-serving uses are also consistent with the applicable policies identified under Goal BE-21 as follows.

Consistent with General Plan Policy BE-21.2, the proposed project would ensure efficient and productive use of Port lands by constructing and co-locating a high-quality ferry terminal with restaurant, office, and hotel accommodations.

The proposed project would not conflict with Policy BE-21.4 of the Redwood City General Plan, which seeks to maintain railroad rights-of-way for materials transport and potential transit use. Visitor-serving uses would not affect the railroad rights-of-way and would not include a railroad aspect.

Policies that are within the Redwood City General Plan but would not apply to visitor-serving uses include Policy BE-21.3, which calls for the preparation of a ferry services plan. Due to this aspect of the project being focused on constructing and operating visitor-serving uses and not a ferry terminal, Policy BE-21.3 would not apply.

Land use designations for the project site and surrounding area are provided in the Redwood City General Plan and summarized in **Section 3.10.3.2.1**. The visitor-serving uses of the proposed project would be consistent with the site's M (Marina) designation, which allows for ferry terminals and uses complementary to ferry transportation activities, including restaurants, shops, mixed-use housing, and other visitor-serving uses up to three stories. As a result, construction and operation of the visitor-serving uses would not conflict with applicable land use requirements. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Redwood City General Plan. There would be no impact.

Redwood City Zoning Ordinance (Zoning Code)

Without a zone change, the project would not be consistent with the existing zoning. A zone change from GI (General Industrial) to CG (General Commercial) would be required prior to construction and operation of the visitor-serving uses, and is included in the Project Description (see Chapter 2). The proposed CG classification would permit the proposed hotel, an administrative or professional office of less than 10,000

square feet, sales of merchandise, and commercial passenger terminal facilities within an enclosed building. The hotel and office space would be consistent with the proposed new CG zoning classification. As discussed above for the ferry terminal, approval of the ferry terminal and ferry service use is under the authority of the Board. Restaurants and bars would also be permitted under a Conditional Use Permit.

Additionally, the CG designation would require at least 20 percent of the project site be pervious area and be composed of landscaping, vegetated open space, or permeable paving materials, consistent with the provisions of Section 32.12 of the Zoning Ordinance.[41] The CG designation would limit lot coverage to 60 percent and, while it would allow a building height of up to 75 feet (e.g., five to seven stories), the maximum building height at the project site would be three stories (i.e., approximately 45 feet) for the hotel, in compliance with the project site's General Plan designation of M (Marina), which is not proposed to be amended.

The proposed zone change associated with the visitor-serving uses would not lead to an incompatibility with respect to nearby industrial zoned areas. For instance, as discussed in Section 3.2, Air Quality, the construction and operation of visitor-serving uses as part of the proposed project would not introduce sensitive receptors to the project site. Sensitive receptors are defined by the Bay Area Air Quality Management District (BAAQMD) as "individuals more susceptible to poor air quality (e.g., children, the elderly, and those with preexisting serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycares centers and preschools, hospices, dormitories, correctional facilities, nursing homes, hospitals, and residential communities."[42] The visitor-serving uses would not constitute any of these land use types. Moreover, the visitor-serving uses would be located on the north side of the project site and away from existing industrial activities south of the project site. As part of the proposed project, a landscape buffer would be installed between the hotel and adjacent industrial activities that would assist in visually separating the site from industrial uses to the south. Additionally, visitor-serving uses would be located at the northern end of the project site, away from the industrial uses and would be physically separated by the landscape buffer and ferry terminal parking lot. The operation of visitor-serving uses would not affect industrial operations nearby due to the distance between the industrial operations and the visitor-serving uses, nor would the visitor-serving uses obstruct existing operations on adjacent properties.

As a result, with the approval of the zone change from GI to CG, construction and operation the visitor-serving uses would not conflict with applicable zoning requirements. Furthermore, the visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the Redwood City Zoning Ordinance. There would be no impact.

Port of Redwood City 2020 Vision Plan

Consistent with applicable land use plans and policies, such as the Seaport Center Business Park and other commercial establishments south of the Port, by providing visitors with lodging options in the area. Therefore, the visitor-serving uses would increase the frequency and quantity of business patrons in close

[41] City of Redwood City. 2026. Zoning Ordinance, Article 15 – CG (General Commercial). Available: https://library.municode.com/ca/redwood_city/codes/zoning_code?nodeId=ART15CGGECODI.

[42] Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Air Quality Guidelines, Appendix E: Recommended Methods For Screening and Modeling Local Risks and Hazards. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc_lang=en.

vicinity to the Port and would not interfere with the 2020 Vision Plan. The visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with the 2020 Vision Plan. There would be no impact.

RWCmoves

There are no applicable goals or projects or programs within RWCmoves for the construction or operation of visitor-serving uses. However, providing visitor-serving uses in proximity to the ferry service would be supportive of RWCmoves by providing new development close to transit, thereby prioritizing enhanced mobility, equity, and access. The visitor-serving uses would not conflict with RWCmoves. Therefore, visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with RWCmoves. There would be no impact.

RWC Walk Bike Thrive

There are no applicable goals or improvements within RWC Walk Bike Thrive for the construction or operation of visitor-serving uses. However, the visitor-serving uses would result in new development located in an area accessible to walkers and bicyclists, including the Bay Trail, which would be supportive of the Plan's goal for a walking and bicycling-friendly community. Therefore, visitor-serving uses would not cause a significant environmental impact not analyzed elsewhere in this EIR due to a conflict with RWC Walk Bike Thrive. There would be no impact.

3.10.5.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, with a zone change and an amendment to the Seaport Plan to allow the visitor-serving uses, the construction and operation of all project components would not conflict with applicable land use plans and policies. The ferry terminal would continue to be an allowable use under the proposed zone change and Seaport Plan amendment and, therefore, the proposed zone change and amendment that may occur after the ferry terminal is operational would not create a conflict with the ferry terminal use. Further, the proximity of the ferry terminal operations and the visitor-serving uses would be complementary (i.e., hotel users may choose to ride the ferry and ferry riders may choose to patronize the visitor-serving uses) and would not introduce any land use incompatibilities that could result in a conflict with land use plans, policies, or regulations. Therefore, the construction and operation of the proposed project would not conflict with any land use plan, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and there would be no impact.

3.10.5.1.4 Mitigation Measures

No mitigation is required for construction or operations.

3.10.5.1.5 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.10.5.2 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the

individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic area for cumulative analysis is the City of Redwood City and the context for assessing cumulative environmental impacts associated with land use is the planning framework set forth in the City's General Plan. As discussed in Section 3.0.4 of the Introduction to Chapter 3, the adopted growth projections used for the cumulative impacts analysis in this EIR are derived from the San Mateo County Factsheet for the Plan Bay Area 2050+, which are based upon economic and demographic trends as well as key existing State and regional policy commitments for the county. Plan Bay Area 2050+ used the Bay Area Spatial Information System (BASIS) to collect data from local jurisdictions for use in regional forecasts, including zoning and general plan data. As such, the land use planning and development framework included in the City's General Plan is considered to be generally reflected, and accounted for, in the adopted Association of Bay Area Governments (ABAG) growth projections.[43]

As described above, the proposed project would have no impact relative to land use. Therefore, the proposed project would not contribute to a cumulative land use impact.

3.10.5.2.1 Mitigation Measures

No mitigation is required.

3.10.5.2.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. There would be no cumulative land use impact.

3.10.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to land use associated with construction and operation of the proposed project.

[43] MTC and ABAG. March 6, 2026. Final Plan Bay Area 2050+ San Mateo County Factsheet. Available: https://planbayarea.org/sites/default/files/documents/pba50_plus_san_mateo_county_fact_sheet.pdf?cb=7d7bef44https.

Section 3.11
Noise and Vibration

3.11.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to noise, and the impacts from implementation of the proposed project. Noise impacts on humans related to construction and operation of the proposed project, as well as from exposure to aircraft noise, and vibration impacts on structures during construction activities are addressed. Noise and vibration impacts from construction and operation of the proposed project on sensitive biological resources are addressed in Section 3.3, Biological Resources, of this Draft EIR. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.11.1.1 Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher-pitched signals sound louder to humans than sounds with a lower pitch. Loudness is the intensity of sound waves combined with the reception characteristics of the ear. Intensity is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales that are used to describe noise in a particular location. The noise measurement terms used in this analysis are described below and defined in **Table 3.11-1**.

Table 3.11-1 Definition of Acoustical Terms Used in this Analysis

Term	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure for the medium that the sound is passing through. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 hertz (Hz) and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.

Term	Definition
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 PM and 7:00 AM.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels measured in the night between 10:00 PM and 7:00 AM.
Sound Exposure Level, SEL	A time integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control; and Illingworth and Rodkin, 2025.

A decibel (dB) is a unit of measurement that indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a tenfold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in **Table 3.11-2**. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Table 3.11-2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level, dBA	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room (background)
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 PM to 10:00 PM) and a 10 dB addition to nocturnal (10:00 PM to 7:00 AM) noise levels. The Day/Night Average Sound Level (DNL or L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Another noise descriptor is Maximum Noise Level (L_{max}), which is the greatest sound level measured during a noise event. For example, as a vehicle passes by an observer, the sound level increases to a maximum level and then decreases.

The metric Sound Exposure Level (SEL), expressed in dBA, is a time-integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound.

3.11.1.2 Effects of Noise

3.11.1.2.1 Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and 55 dBA if the noise is fluctuating.[1,2] Outdoors, the thresholds are about 15 dBA higher.[1] Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep.[1] Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn}.[3] The standard is designed for sleep and speech protection, and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling.[4] Sleep and speech interference is therefore possible when exterior noise levels are about 57 to 62 dBA L_{dn} with open windows and 65 to 70 dBA L_{dn} if the windows are closed. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to 70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at development immediately outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special glass windows.

3.11.1.2.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. Causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed.[5] There is disagreement about the relative annoyance caused by aircraft noise and ground transportation noise. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA L_{dn}. At a L_{dn} of about 60 dBA, approximately 12 percent of the population is highly annoyed.[6] When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 25 to 30 percent.[5] There is, therefore, an increase of about 2 percent per dBA between a L_{dn} of 60 and 70 dBA. Between a L_{dn} of 70 and 80 dBA, each decibel increase increases the percentage of the

[1] U.S. Environmental Protection Agency, Office of Noise Abatement and Control. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Available: https://www.nrc.gov/docs/ML1224/ML12241A393.pdf.

[2] California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.

[3] 2022 California Building Code. California Code of Regulations, Title 24, Volume 1 of Part 2.

[4] Based on the U.S. Department of Transportation, Federal Highway Administration document "Highway Traffic Noise: Analysis and Abatement Guidance" (2017) and data from Illingworth & Rodkin, Inc. noise monitoring projects.

[5] California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf.

[6] Kryter, Karl D. 1985. The Effects of Noise on Man. Menlo Park, Academic Press, Inc. Available: https://archive.org/details/unset0000unse_v9r0.

population highly annoyed by about 3 percent. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately 30 to 35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.[5]

3.11.1.3 Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In the analysis herein, a PPV descriptor with units of in/sec is used to evaluate construction-generated vibration for building damage and human complaints. Construction that can result in significant levels of ground vibration generally falls into two categories that are best characterized by the cause of the vibration and its duration. Vibration that is steady-state and more or less continuous can be caused by vibratory compaction of soil, movement of large equipment, and other sources. In contrast, vibration that is more transient in nature and intermittent due to impulsive forces can be caused by pile driving. **Table 3.11-3** presents vibration guidelines in terms of PPV levels, summarizing the vibration criteria for human response and potential damage to buildings resulting from construction vibration, and it displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce.

Table 3.11-3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, in/sec PPV	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect.
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure.
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected.
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings.
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential buildings.
0.5	Severe – vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures.

Source: California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction-related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage to structures and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception of vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, which may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in **Table 3.11-3** include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from "historic and some old buildings" to "modern industrial/commercial buildings". Major structural damage from construction-induced vibration is generally only observed if a structure is in a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in **Table 3.11-3** should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibrations, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

Railroad and light rail operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground vibration from rail vehicles has been correlated best with the average, root mean square (RMS) velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} in/sec RMS, which equals 0 vibration decibels (VdB), and 1 in/sec equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams, and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. **Table 3.11-4** illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

Table 3.11-4 Typical Levels of Groundborne Vibration

Human/Structural Response	Velocity Level, VdB	Typical Events (50-foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
–	–	Heavy tracked vehicles (bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	–
–	–	Commuter rail, upper range
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, occasional events	–	Commuter rail, typical bus or truck over bump or on rough roads
Residential annoyance, frequent events	70	Rapid transit, typical
Approximate human threshold of perception to vibration	–	Buses, trucks and heavy street traffic
–	60	–
–	–	Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	–

Source: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment. 2018. Transit Noise and Vibration Impact Assessment Manual. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

3.11.2 Methodology

Assessment of the significance of noise impacts resulting from the construction and operation of the proposed project was conducted as follows:

- Receptor locations were selected to represent potentially impacted land uses in the project area (see **Figure 3.11-2** in **Section 3.11.3.2** below).
- Noise measurements were made at the closest receptor sites to the project site and at representative locations to quantify the dominant noise source in the project vicinity to establish existing baseline noise conditions.

Construction Equipment Noise

Noise impacts from project construction equipment were evaluated by considering the relevant types of construction activities, calculating construction-related noise levels at nearby noise-sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without project-related construction noise). Noise levels for the proposed construction activities were estimated from published sources referenced in **Section 3.11.5.1.1.1**. Calculations were based on the minimum required equipment to complete the work and the maximum equipment per construction phase. Additionally, maximum noise levels from individual pieces of equipment were considered, especially during pile driving operations.

Construction Equipment Vibration

The construction-related vibration impacts of the proposed project were evaluated using guidance developed by the California Department of Transportation (Caltrans).[7] As reflected in **Table 3.11-3** above, Caltrans recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards. A conservative vibration limit of 0.25 to 0.30 in/sec PPV has been used for older buildings that are found to be structurally sound, but cosmetic damage to plaster ceilings or walls is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of 0.08 in/sec PPV is often used to provide the highest level of protection. Compliance with these limits has not been known to result in appreciable structural damage. All vibration limits referred to herein apply on the ground level and consider the response of structural elements (i.e., walls and floors) to groundborne excitation.

Impacts due to construction activities were evaluated by identifying the proposed project's vibration sources (i.e., construction equipment), measuring the distance between vibration sources and the surrounding structures that may be susceptible to vibration impacts, and comparing these to the Caltrans construction vibration damage criteria.

The operation of the proposed project would not generate groundborne vibration; therefore, operational vibration is not addressed further in this EIR.

Operational Noise

Operational noise impacts were determined by comparing project-generated operational noise to existing ambient noise levels and applicable thresholds. The operational noise analysis includes project-generated noise from ferry operations, roadway traffic increases, mechanical equipment, parking lot activities, and truck loading/unloading activities.

Exposure to Excessive Noise from Aircraft Operations

The potential for the proposed project to expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations was determined by reviewing noise contour maps contained in the Airport Land Use Compatibility Plans (ALUCPs) for nearby airports. The project site is within the Airport Influence Area (AIA) for both the San Francisco International Airport and San Carlos Airport (refer to **Section 3.11.3.1.3** below).

[7] California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

3.11.3 Existing Conditions

3.11.3.1 Regulatory Setting

3.11.3.1.1 Federal

No federal regulations or policies regarding noise are applicable to the proposed project.

3.11.3.1.2 State

California Noise Control Act of 1973

The Legislature, in Section 46000 of the California Noise Control Act of 1973 (Health and Safety Code, Sections 46000 to 46080), finds that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The act declared that California has a responsibility to protect the health and welfare of its citizens by controlling, preventing, and abating noise that jeopardizes the health or welfare of Californians.

California Airport Noise Standards

Title 21 of the California Code of Regulations, Division 2.5, Subchapter 6 (also known as the California Airport Noise Standards) defines incompatible noise levels as exposure of nearby communities to noise levels of 65 dB CNEL or greater from aircraft operations. Land use incompatibility is most likely to occur for noise-sensitive uses within the 65 dB CNEL noise contour. The 65 dB CNEL standard is also referenced in the Caltrans California Airport Land Use Planning Handbook as the basic limit of acceptable noise levels for residential and other noise-sensitive uses within an urban area.[8]

3.11.3.1.3 Regional

San Mateo County Airport Land Use Compatibility Plans

Section 21670 of the State Aeronautics Act (California Public Utilities Code, Sections 21001 to 21712) mandates that each county containing a public airport have an Airport Land Use Commission (ALUC), which is required to coordinate planning for the areas surrounding public use airports. Airport Land Use Compatibility Plans (ALUCPs) provide guidance on compatible land uses surrounding airports to protect the health and safety of people and property within the vicinity of an airport, as well as the public in general. ALUCPs focus on a defined area around each airport known as the Airport Influence Area (AIA). The AIA is comprised of noise, safety, airspace protection, and overflight factors. Development of an AIA takes into consideration the projected aircraft-related noise contours associated with the airport.

The City/County Association of Governments of San Mateo County (C/CAG) is the designated ALUC for San Mateo County, and is responsible for adopting ALUCPs for the public use airports within San Mateo County. As the San Mateo County ALUC, C/CAG has prepared ALUCPs for the three public use airports in the County: San Francisco International Airport, San Carlos Airport, and Half Moon Bay Airport, located approximately 10.5 miles northwest, 2.3 miles west, and 16 miles west of the project site, respectively.

[8] California Department of Transportation (Caltrans), Division of Aeronautics. 2011. California Airport Land Use Planning Handbook, Section 4.2, Noise. Available: https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlandu seplanninghandbook-a11y.pdf.

The project site is located within the AIA, as identified in the ALUCPs, for the San Carlos Airport and San Francisco International Airport.[9,10] The project site is not within the AIA for the Half Moon Bay Airport.[11]

3.11.3.1.4 Local

City of Redwood City General Plan

The Public Safety Element of the Redwood City General Plan[12] sets forth goals, policies, and programs with the aim of minimizing the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies in Redwood City. The City's noise guidelines for mixed-use districts are shown in **Figure 3.11-1**. The following goals, policies, and programs are applicable to the proposed project:

Goal PS-13: Minimize the impact of point source noise and ambient noise levels throughout the community.

- **Policy PS-13.3:** Consider noise impacts as part of the development review process, particularly the location of parking, ingress/egress/loading, and refuse collection areas relative to surrounding residential development and other noise-sensitive land uses.
- **Policy PS-13.4:** In accordance with the Municipal Code and noise standards contained in the General Plan, strive to provide a noise environment that is at an acceptable noise level near schools, hospitals, and other noise-sensitive areas.
- **Policy PS-13.5:** Limit the hours of operation at all noise generation sources that are adjacent to noise-sensitive areas, wherever practical.
- **Policy PS-13.6:** Require all exterior noise sources (construction operations, air compressors, pumps, fans, and leaf blowers) to use available noise suppression devices and techniques to bring exterior noise down to acceptable levels that are compatible with adjacent land uses.
- **Policy PS-13.8:** Implement appropriate standard construction noise controls for all construction projects.

Goal PS-14: Minimize the impacts of transportation-related noise.

- **Policy PS-14.1:** Consult with responsible federal and State agencies to minimize the impact of transportation-related noise, including noise associated with freeways, major arterials, rail lines, and airports.

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[9] City/County Association of Governments of San Mateo County. 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared by ESA. Available: https://ccag.ca.gov/wp-content/uploads/2015/11/SQL_FinalALUCP_Oct15_read.pdf.

[10] City/County Association of Governments of San Mateo County. 2012. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport. Prepared by Ricondo & Associates in association with Jacobs Consultancy and Clarion Associates. Available: https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf.

[11] City/County Association of Governments of San Mateo County. 2014. Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport. Prepared by Coffman Associates. Available: https://ccag.ca.gov/wp-content/uploads/2014/10/HAF-ALUCP-Final.pdf.

[12] City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

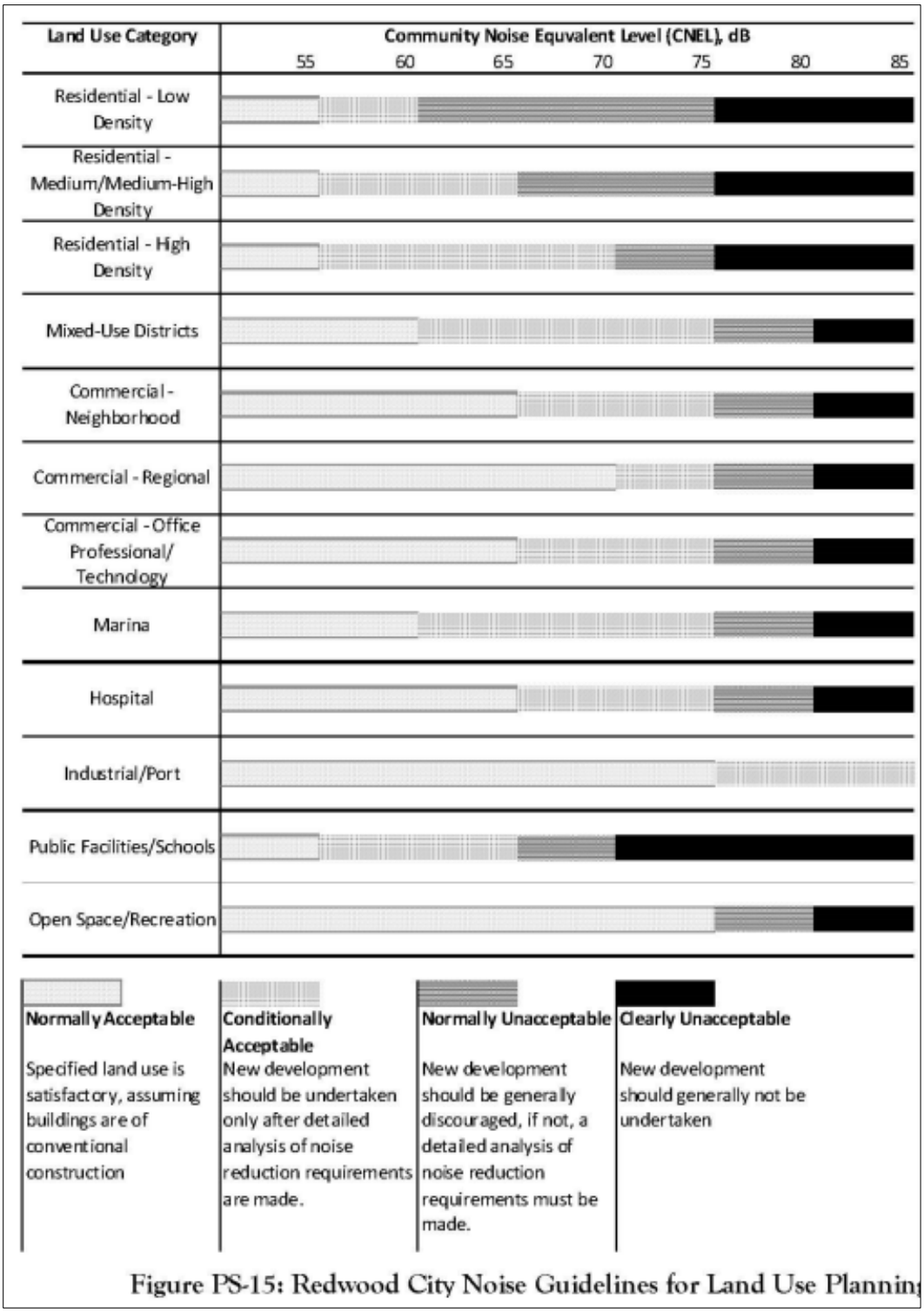


Figure PS-15: Redwood City Noise Guidelines for Land Use Planning

Source: City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Figure 3.11-1 Redwood City Noise Guidance for Land Use Planning

Program PS-60: Noise Regulation Enforcement.

- Continue to enforce City and State noise regulations to protect residents from excessive noise levels. Periodically update City regulations for adequacy and revise, as needed, to address community needs and changes in legislation and technology.
- Allow for appropriate enforcement of all noise regulations, including fines for violations.

Program PS-63: Enforcing Construction and Maintenance Noise Regulations. Minimize noise from property maintenance equipment, construction activities, and other non-transportation noise sources by enforcing construction and maintenance hours, including vehicle start-up and preparation. Enforce standard construction noise controls such as:

- Limit construction to the hours of 8:00 AM to 5:00 PM on weekdays, and 9:00 AM to 5:00 PM on Saturdays, with no noise-generating construction on Sundays or holidays.
- Control noise from construction workers' radios to the point where they are not audible at existing residences that border the project site.
- Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
- Utilize quiet models of air compressors and other stationary noise sources where technology exists.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- Prohibit unnecessary idling of internal combustion engines.
- Notify residents adjacent to the project site of the construction schedule in writing.

Program PS-71: Quiet Pavement Surfaces. Consider quiet pavement surfaces in the City's repaving plans as an opportunity to make a noticeable reduction in traffic noise along City streets.

Redwood City Municipal Code

Chapter 24 of the City's Municipal Code includes noise regulations for construction activities.[13] The following sections apply to the proposed project:

Section 24.30. Excessive and Unreasonable Noises

The following are deemed to be excessive and unreasonable noises:

- Noise levels generated by loud equipment or construction activities, including demolition, alteration, repair, landscaping or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured at any point within a residential district of the City and outside of the plane of said property;
- Any noise generated by construction activities that persists for ten (10) continuous minutes or more outside of the hours identified in Section 24.32 of this Code; or

[13] City of Redwood City. Municipal Code, Chapter 24 – Noise Regulation. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH24NORE.

- Noise levels generated by an individual item of machinery, equipment or device used during construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured within a residential district of the City at a distance of twenty-five feet (25 feet) from said machinery, equipment or device. If said machinery, equipment or device is housed within a structure on the property, then the measurement shall be made at a distance as near to twenty-five feet (25 feet) from said machinery, equipment or device as possible.

Section 24.31. Prohibit Noise Levels

It shall be unlawful for any person to suffer or allow noise levels to be generated by:

- Construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured at any point within a residential district of the City and outside of the plane of said property; or
- An individual item of machinery, equipment or device used during construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured within a residential district of the City at a distance of twenty-five feet (25 feet) from said machinery, equipment or device. If said machinery, equipment or device is housed within a structure on the property, then the measurement shall be made at a distance as near to twenty-five feet (25 feet) from said machinery, equipment, or device as possible.

Section 24.32. Time Limitations

It shall be unlawful for any person to suffer or allow noise levels to be generated by:

- General construction noise on private projects shall be limited to weekdays from seven o'clock (7:00) AM to eight o'clock (8:00) PM. Excessive or unreasonable construction noises, as identified under Section 24.30, shall be limited to weekdays from nine o'clock (9:00) AM to four o'clock (4:00) PM. General and excessive or unreasonable construction noise is prohibited during holiday periods, as indicated on the City website.
- Preconstruction noise including, but not limited to, loading and unloading, cleaning of mechanical toilets, maintenance of vehicles, deliveries, truck idling, backup beeps, yelling and radios is also limited to the general and excessive or unreasonable construction noise hours.

The Building Official or their designee may approve construction work occurring outside the times described in Section A and B above for private projects. A request for work outside the designated periods must be received by the Building Official or their designee prior to construction. A copy of the approved request shall be kept on the site of the work.

Redwood City Zoning Ordinance (Zoning Code)

Article 36 of the City's Zoning Ordinance includes provisions to encourage quality design and reduce potential impacts, including noise, of exterior improvements on adjoining properties.[14] The following section applies to the proposed project:

Section 36.7. Outdoor Equipment, Decks, and Patios

- Outdoor Equipment. Outdoor equipment such as air conditioning units or pool equipment must be located in the side or rear yard and setback a minimum of three (3) feet from the property line. Outdoor equipment shall not exceed fifty-five (55) dBA in noise level at any point along the property line.

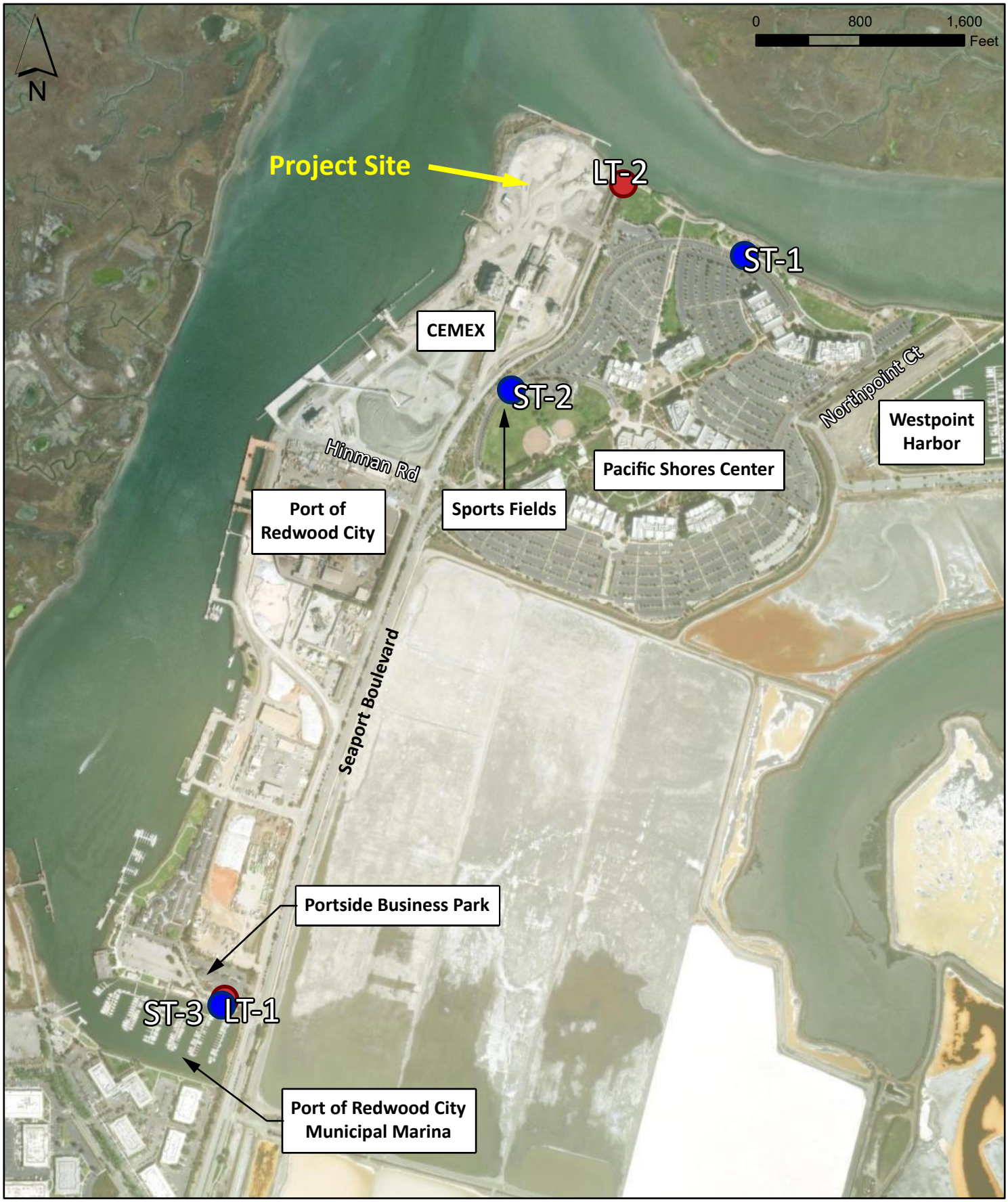
3.11.3.2 Existing Noise Environment

The project site is located near the Port of Redwood City where the Westpoint Slough meets Redwood Creek. The surrounding land uses include the Cemex Construction Materials (CEMEX) Redwood City Cement Terminal, which adjoins the project site to the south; the Pacific Shores Center office complex to the east, opposite Seaport Boulevard; the Port of Redwood City Municipal Marina, which has liveaboards (people who reside on boats); Portside Business Park, approximately 4,000 feet to the south; and Westpoint Harbor, which also has liveaboards, approximately 1,680 feet to the east. The CEMEX facility is an industrial source, as opposed to a noise-sensitive receptor. The office complex, which includes a gym and outdoor sports courts, and the nearby liveaboards would be considered noise-sensitive receptors that would potentially be exposed to temporary and permanent noise generated at the project site. Users of the Bay Trail and waterfront park would not be considered permanent daytime or nighttime receptors with long-term exposure to noise-generating activities at the project site. Therefore, the exposure of any park or walking trail user would be minimal, and these land uses are not treated as noise-sensitive receptors in this analysis. Similarly, participants in any motorized or nonmotorized activities on the water, such as boating, kayaking, etc., are transient receptors, minimizing the duration of any noise exposure to temporary or permanent noise-generating activities at the project site.

The existing noise environment (ambient noise) at the site results primarily from vehicular traffic along Seaport Boulevard and aircraft associated with the San Carlos Airport, which is located approximately 2.3 miles to the west. Operational noise from CEMEX and occasional rail activity accessing the CEMEX site also contributes to the noise environment. Motorized vessels on the adjacent waterways also contribute to the noise environment, although sporadically.

A noise monitoring survey consisting of two long-term (LT-1 and LT-2) and three short-term (ST-1 through ST-3) noise measurements was conducted at the project site and the surrounding area between Wednesday, July 17, 2024, and Friday, July 19, 2024. All noise measurement locations are shown in **Figure 3.11-2**.

[14] City of Redwood City. Zoning Ordinance, Article 36 – Exterior Site Improvements. Available: https://library.municode.com/ca/redwood_city/codes/zoning_code?nodeId=ART36EXSIIM.



Source: Illingworth and Rodkin, 2025

Figure 3.11-2

Port of Redwood City Ferry Terminal Project

NOISE MEASUREMENT LOCATIONS

Long-term noise measurement LT-1 was made at the northeastern corner of the Port of Redwood City Municipal Marina and near the Disney Cruise Booking building, approximately 165 feet west of the centerline of Seaport Boulevard. Hourly average noise levels typically ranged from 51 to 71 dBA L_{eq} during daytime hours (7:00 AM and 10:00 PM) and from 48 to 60 dBA L_{eq} during nighttime hours (10:00 PM and 7:00 AM). The community noise equivalent level on Thursday, July 18, 2024, was 64 dBA CNEL. The daily trend in noise levels at LT-1 is shown in Figures 1 through 3 in Appendix I of this Draft EIR. Long-term noise measurement LT-2 was made near the northeastern corner of the project site, approximately 355 feet north of the centerline of Seaport Boulevard and approximately 75 feet from the edge of the Westpoint Slough. Hourly average noise levels typically ranged from 50 to 65 dBA L_{eq} during daytime hours and from 39 to 56 dBA L_{eq} during nighttime hours. The community noise equivalent level on Thursday, July 18, 2024, was 60 dBA CNEL. The daily trend in noise levels at LT-2 is shown in Figures 4 through 6 in Appendix I of this Draft EIR.

Short-term noise measurements were made on Wednesday, July 17, 2024, between 10:40 AM and 12:00 PM in 10-minute intervals. Results of the short-term measurements are summarized in **Table 3.11-5**.

Table 3.11-5 Summary of Short-Term Noise Measurements (dBA)

Noise Measurement Location	Time	Measured Noise Level, dBA					
		L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: west of Moon Phase Plaza	10:40-10:50 AM	77	74	56	51	48	59
	10:50-11:00 AM	57	56	51	49	47	50
ST-2: west of basketball court at Pacific Shores Club	11:10-11:20 AM	77	67	59	53	50	57
	11:20-11:30 AM	60	58	54	51	50	52
ST-3: northeast corner of Port of Redwood City Municipal Marina	11:50 AM -12:00 PM	68	64	58	53	50	55

Source: Illingworth & Rodkin, Inc., 2025.

Short-term noise measurement ST-1 was made in the Bay Trail west of Moon Phase Plaza, approximately 45 feet north of the centerline of Seaport Boulevard. Two 10-minute measurements were taken at ST-1. During the first 10-minute period, noise sources included a distant lawn mower (47 to 55 dBA), local traffic consisting of passenger cars (52 to 59 dBA), and jets flying overhead (50 to 77 dBA). The second 10-minute period included noise from passenger cars (52 to 57 dBA), jets (50 to 51 dBA), a boat (51 dBA), and birds (54 to 55 dBA). The 10-minute L_{eq} measurements at ST-1 were 59 and 50 dBA during the first and second measurement periods, respectively.

Short-term noise measurement ST-2 was made at the basketball court just north of the Pac Shores Baseball Field, which is part of the Pacific Shores Club. ST-2 was made approximately 75 feet east of the centerline of Seaport Boulevard. Two 10-minute measurements were taken at ST-2. During the first 10-minute period, noise sources included local traffic (52 to 68 dBA), slow freight trains (50 to 60 dBA), a plane flying overhead (56 dBA), jets flying overhead (59 to 67 dBA), and operations from the nearby concrete factory (49 to 52 dBA). The noise contributors during the second measurement period included passenger cars (53 to 57 dBA), a plane (52 dBA), jets (53 to 60 dBA), and operations from the CEMEX aggregate and cement marine terminal (49 to 52 dBA). The 10-minute L_{eq} measurements at ST-2 were 57 and 52 dBA during the first and second measurement periods, respectively.

Short-term noise measurement ST-3 was made at LT-1, approximately 165 feet west of the centerline of Seaport Boulevard and near the Wested educational building. Local traffic noise from Seaport Boulevard was the dominant noise source at this location, with passenger cars generating noise levels of 52 to 60 dBA and heavy trucks generating noise levels of 60 to 68 dBA. The 10-minute L_{eq} measured at ST-3 was 55 dBA.

3.11.4 Thresholds of Significance

The proposed project would result in significant impacts associated with noise and vibration if it would:

Impact 3.11-1 Construction Noise:

Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies as defined below.

- Section 24.30 of the Redwood City Municipal Code limits temporary construction noise levels to 110 dB measured at any point within a residential district of the City and outside of the plane of said property. Additionally, temporary construction noise levels of any individual piece of equipment shall not exceed 110 dB measured within a residential district of the City at a distance of 25 feet from the equipment or 25 feet from the enclosure in which the equipment is housed.
- Section 24.32 of the Redwood City Municipal Code limits all temporary construction activities to weekdays between 7:00 AM and 8:00 PM and limits excessive construction noise levels that exceed the limits provided in Section 24.30 to the hours of 9:00 AM and 4:00 PM on weekdays. All construction activities are prohibited during holiday periods.

Operational Noise (including Roadway Traffic Noise):

- All outdoor equipment shall not exceed 55 dBA at any point along the property line, according to Section 36.7 of the Redwood City Zoning Code.
- A significant permanent noise level increase over existing ambient conditions would occur if:
  - The project results in a 5 dBA CNEL or more noise level increase where the future noise environment would remain below the normally acceptable level.
  - The project results in a 3 dBA CNEL or more noise level increase where the future noise environment would equal or exceed the normally acceptable level.

This threshold is based on the accepted industry standard that a 3 dBA difference is the point at which the human ear will perceive a difference in noise level and a minimum 5 dBA change is readily perceptible.[15]

[15] California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

Impact 3.11-2 Generate excessive groundborne vibration, defined as vibration that would exceed the following damage potential threshold criteria for continuous/frequent intermittent sources:

- 0.5 in/sec PPV at new residential and modern commercial/industrial buildings, which typically consist of structures constructed since the 1990s;
- 0.3 in/sec PPV, at older residential structures, which would apply to most structures built since the 1940s; or
- 0.25 PPV in/sec PPV, at historic buildings or some older sensitive buildings constructed prior to the 1940s.

This threshold is based on Caltrans' Transportation and Construction Vibration Guidance Manual.[16]

Impact 3.11-3 If located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations.

This threshold is based on Appendix G of the State CEQA Guidelines, Title 21 of the California Code of Regulations, Subchapter 6 (also known as the California Airport Noise Standards), and the Caltrans California Airport Land Use Planning Handbook.[17]

3.11.5 Project Impacts

3.11.5.1 Impact 3.11-1

Impact 3.11-1: Would the proposed project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

3.11.5.1.1 Construction

3.11.5.1.1.1 Methodology

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

[16] California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

[17] California Department of Transportation (Caltrans), Division of Aeronautics. 2011. California Airport Land Use Planning Handbook, Section 4.2, Noise. Available: https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf.

Program PS-63 of the City's General Plan limits construction hours to between 8:00 AM and 5:00 PM on weekdays and to between 9:00 AM and 5:00 PM on Saturdays, with no noise-generating construction on Sundays or holidays. Chapter 24 of the City's Municipal Code limits construction activities within 500 feet of a residential district to between 7:00 AM and 8:00 PM on weekdays. Additionally, Section 24.30 of the Redwood City Municipal Code limits construction noise within residential districts to 110 dBA, and individual pieces of construction equipment are limited to 110 dBA at a distance of 25 feet within a residential district. There are no residential districts within the project site. However, this analysis conservatively discusses the standard for construction noise within residential districts in Section 24.30 of the Redwood City Municipal Code to noise-sensitive receptors residing and working in the Port of Redwood City Municipal Marina, which has liveaboards (people who reside on boats); Portside Business Park, approximately 4,000 feet to the south; and Westpoint Harbor, which also has liveaboards, approximately 1,680 feet to the east.

Construction activities for individual projects are typically carried out in phases. During each phase of construction, there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location at which the equipment is operating. The typical ranges of maximum instantaneous noise levels for individual pieces of equipment are shown in **Table 3.11-6**, and **Table 3.11-7** shows the range of hourly average noise level, by construction phase, during typical construction projects.

Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

Table 3.11-6 Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	L_{max} Level, dBA[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Source: U.S. Department of Transportation, Federal Highway Administration. 2017 (updated). FHWA Highway Construction Noise Handbook. Available: https://www.fhwa.dot.gov/ENVIRONMENT/noise/construction_noise/handbook/handbook00.cfm.
Notes:
[1] Measured at 50 feet from the construction equipment, with a "slow" (1 second) time constant.
[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.
[3] Portable air compressor rated at 75 cubic feet per meter (cfm) or greater and that operates at greater than 50 pounds per square inch (psi).

Table 3.11-7 Typical Ranges of Construction Noise Levels at 50 Feet, dBA L_{eq}

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers & Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

Source: U.S. Environmental Protection Agency. 1973. Legal Compilation on Noise, Vol. 1, p. 2-104.
Notes:
I – All pertinent equipment present at site.
II – Minimum required equipment present at site.

Construction activities would include raising the site elevation, site preparation, grading, trenching, building construction, building interior work, and paving. Additionally, construction of the floating dock, the access pier on the landside, and the foundations for the future visitor-serving uses would require pile driving, which is discussed in more detail below. Construction activities are expected to start in mid-2026 and last for a total of approximately four years. **Table 3.11-8** summarizes the range of maximum instantaneous noise levels and typical hourly average noise levels for each of the proposed construction activities included in the proposed project at 25 feet and at the nearest noise-sensitive receptors. Noise levels presented in **Table 3.11-8** do not assume reductions due to intervening buildings or existing barriers. While equipment may be scattered around the proposed work areas, the distances for each receptor in **Table 3.11-8** represent the center of the construction work sites to the nearest property line where extended use may occur (not including existing parking lots).

Table 3.11-8 Construction Noise Levels Estimated for the Proposed Project

Project Component	At 25 feet[1]			Pacific Shores Center Office Complex			Portside Business Park & Port of Redwood City Municipal Marina Liveaboards			Westpoint Harbor Liveaboards		
	Distance, feet	L_{max}, dBA	L_{eq}, dBA	Distance, feet	L_{max}, dBA	L_{eq}, dBA	Distance (feet)	L_{max}, dBA	L_{eq}, dBA	Distance, feet	L_{max}, dBA	L_{eq}, dBA
Ferry Terminal	25	**101-111**	77-95	1,165	68-78	44-62	4,025	57-67	33-51	2,700	60-70	36-54
Landside Facilities	25	91-101	81-95	720	62-72	52-66	4,000	47-57	37-51	2,045	53-63	43-57
Roadwork	25	91-101	84-94	40	87-97	80-90	2,510	51-61	44-54	330	69-79	62-72
Visitor-Serving Uses	25	**101-111**	77-95	1,135[2] 1,060[3]	58-68[2] 69-79[3]	44-62[2]	4,365[2] 4,255[3]	46-56[2] 56-66[3]	32-50[2]	1,340[2] 2,305[3]	56-66[2] 62-72[3]	42-60[2]

Source: Illingworth & Rodkin, Inc., 2025.

Notes:

[1] Numbers shown in **bold** indicate noise level exceeding the City's 110 dBA threshold at 25 feet.

[2] Noise levels calculated from center of visitor-serving uses site and does not include pile driving activities.

[3] Noise levels calculated from nearest possible building edge at the visitor-serving uses site where foundation pile driving activities would occur.

3.11.5.1.1.2 Ferry Terminal

Total construction of the ferry terminal, access, and associated improvements is expected to take approximately 15 months.

Waterside Improvements

The ferry terminal would include waterside construction for in-water installation of the pilings and float and overwater work to install ramping and utilities. The floating platform would be located on the western shore of the project site and would be moored in place by steel guide piles that would support the float and provide navigation aid for landing vessels. These guide piles would be approximately 36 inches in diameter and 120 feet long. Two steel piles with floating donut fenders, which would protect the corners of the float and provide a pivot point for vessels entering and leaving the berth, would be located at the offshore end of the float. A total of up to 16 piles would be required for the ferry terminal and would be installed from both land and barges. Construction of the float and gangway would take place off-site and would be shipped by barge for installation. Piles are also assumed to be delivered by barge.

Dredging would be required and is estimated to be up to 11,500 cubic yards. This material would be removed by barges and taken to an off-site disposal facility for reuse.

During construction of the ferry terminal, the highest noise levels would be generated during grading, excavation, and foundation construction, especially during the pile driving work necessary for the float and access pier. While most construction work would have hourly average noise levels ranging from 71 to 89 dBA L_{eq} at 50 feet, as shown in **Table 3.11-6**, pile driving operations would be a discrete, isolated construction activity that would generate maximum instantaneous noise levels at 50 feet ranging from 95 dBA L_{max} for vibratory pile driving to 105 dBA L_{max} for impact pile driving. As shown in **Table 3.11-8**, at 25 feet, maximum instantaneous noise levels would range from 101 dBA L_{max} during vibratory pile driving to 111 dBA L_{max} during impact pile driving, assuming no attenuation, and hourly average noise levels would typically range from 77 to 95 dBA L_{eq}.

The nearest receptors include the Pacific Shores Center office complex to the east; the Portside Business Park and the Port of Redwood City Municipal Marina liveaboards to the south; and the Westpoint Harbor liveaboards to the east. These receptors would be 1,165 to 4,025 feet from the area designated for the float and the access pier, which would be located along the western boundary of the project site and in the water, respectively. As shown in **Table 3.11-8**, at these distances, pile driving activities would generate noise ranging from 57 to 78 dBA L_{max} for vibratory and impact. Hourly average noise levels at these distances would range from 33 to 62 dBA L_{eq}. Noise levels would not exceed 110 dBA at the Pacific Shores Center office complex.

The waterfront park, which adjoins the project site to the east, typically would not be considered noise-sensitive since users of the park are transient. The nearest edge of the park would be approximately 760 feet from the nearest pile driving activities. At this distance, pile driving activities would generate noise levels up to 81 dBA L_{max}, which would not exceed the City's threshold. Noise levels would not exceed 110 dBA at the waterfront park.

The ferry terminal component would also include raising the project site by seven feet with imported fill to address sea level rise. This is expected to take approximately nine months to complete. Trucks would import material from up to 20 miles off-site to the project site. This would require approximately 100 truck trips per day over a nine-month period along the Frontage Road. The nearest outdoor sports field

associated with the Pacific Shores Center office complex to the east would be 130 feet from the centerline of the Frontage Road, and the Portside Business Park and liveaboards to the south would be 120 feet or more from the centerline of the roadway. At these distances, and assuming nine to 10 trucks each hour during the allowable construction hours, hourly average noise levels would range from 49 to 50 dBA L_{eq}, with maximum instantaneous noise levels up to 71 dBA L_{max}. The Westpoint Harbor liveaboards would be more than 1,900 feet from the nearest centerline of Frontage Road and would be exposed to hourly average noise levels below 40 dBA L_{eq} and maximum instantaneous noise levels up to 45 dBA L_{max}. Temporary construction noise levels would not exceed thresholds at the nearest receptors. Noise levels would not exceed 110 dBA at the nearest outdoor sports field, the Portside Business Park, or the liveaboards to the south.

While the 110 dBA threshold would potentially be exceeded at 25 feet during pile driving activities, this threshold applies to sounds measured in and impacting a residential district of the City. The nearest liveaboards are more than 4,000 feet away and would be exposed to noise levels up to 67 dBA, which is below the 110 dBA threshold. This would be a less than significant impact.

Landside Facilities

Modifications to the existing public parking lot would be required to accommodate the access improvements. The site elevation of the nine-acre terminal site would be raised to accommodate sea level rise. Additionally, landside components would include a parking lot with 250 spaces and a one-way loop access road for vehicles would extend around the perimeter of the parking lot. An Americans with Disabilities (ADA)-compliant sidewalk would extend along both sides of the loop access road, and transit stops for shuttle services and a drop-off area would be located on the western edge of the site, closest to the terminal. Additional improvements would include an extension of the Bay Trail, the relocation of existing infrastructure (e.g., railroad spur, terminus of Frontage Road, lighting and utilities, and a maintenance building), the removal of an existing 1,000-square-foot cinderblock maintenance storage building, and the relocation of a similarly sized and constructed maintenance building at a new location within the Pacific Shores Center property.

Construction activities associated with the landside facilities would include site preparation, removal and relocation of the railroad tracks and Pacific Shores Center maintenance building, demolition of the parking lot, excavation and grading, installation of utilities, site paving, painting/striping, installation of passenger access pier with cover, and installation of other support features and infrastructure including a security gate, electric vehicle (EV) charging facilities, bicycle storage, parking lot lighting, and signage. The unpaved portion of the Bay Trail would be extended, graded, and paved to connect to the Bay Trail within the project site. Typical construction equipment for the landside facilities would range from 85 to 95 dBA L_{max} at a distance of 50 feet from the noise source. Hourly average noise levels generated by construction would be approximately 75 to 89 dBA L_{eq} for the new landside facilities, measured at a distance of 50 feet from the center of a busy construction site. As shown in **Table 3.11-8**, at 25 feet, maximum instantaneous noise levels would range from 91 to 101 dBA L_{max}, and hourly average noise levels would range from 81 to 95 dBA L_{eq}. The impact would be less than significant.

As shown in **Table 3.11-8**, at the nearest receptors, which would be 720 to 4,000 feet from the center of the proposed parking lot, maximum noise levels would range from 47 to 72 dBA L_{max}, and hourly average noise levels would typically range from 37 to 66 dBA L_{eq}. The impact would be less than significant.

The unpaved portion of the Bay Trail along the northern portion of the waterfront park adjacent to the project site would be paved as part of the proposed project. Paving a portion of the Bay Trail would take no more than one month. The close proximity of construction activities would temporarily elevate noise levels at the westernmost portion of the waterfront park; however, users of the park are not permanent or consistent receptors. Therefore, exposure to construction would be minimal. Given the short duration of construction activities at the waterfront park, and the users' ability to relocate to areas with little to no noise exposure, this would be a less than significant impact.

Roadway Improvements

The proposed project includes widening the Seaport Boulevard loop road from the Pacific Shores Center entrance to the ferry terminal site to accommodate a bicycle trail and sidewalk, and modifying the entrance to the Pacific Shores Center at the intersection with Seaport Boulevard to accommodate the sidewalk and bicycle trail and establish a safe connection to the existing trail to the south. Seaport Boulevard would be widened by approximately 10 to 13 feet on either side. The intersection improvements would include shifting approximately 200 feet of roadway on the east to the southwest and removal of the existing landscape buffer and approximately seven parking spaces southwest of the existing roadway.

Hourly average noise levels generated by construction would be approximately 78 to 88 dBA L_{eq} for roadways and trenching activities, measured at a distance of 50 feet from the center of a busy construction site. As shown in **Table 3.11-8**, at 25 feet, maximum instantaneous noise levels would range from 91 to 101 dBA L_{max}, and hourly average noise levels would range from 84 to 94 dBA L_{eq}. The impact would be less than significant.

As shown in **Table 3.11-8**, at the nearest receptors, which would be 40 to 2,510 feet from the centerline of the nearest roadway improvement, maximum noise levels would range from 51 to 97 dBA L_{max}, and hourly average noise levels would typically range from 44 to 90 dBA L_{eq}. The impact would be less than significant.

3.11.5.1.1.3 Visitor-Serving Uses

Construction of the visitor-serving uses, which is expected to take a total of 24 months, would include removal of the existing Shell Unloading Wharf parallel to the shore along Westpoint Slough, building construction, and installation of drought-tolerant landscaping. Utility connections to existing utility lines at Seaport Boulevard would be required for the visitor-serving uses, and a driveway connection would be established with the ferry parking lot/roadway and new lighting for the visitor-serving uses site. Additionally, deep pile foundations would be required for the visitor-serving uses.

Hourly average noise levels generated by non-pile-driving construction activities would be approximately 71 to 89 dBA L_{eq} for the visitor-serving uses, measured at a distance of 50 feet from the center of a busy construction site, and as shown in **Table 3.11-8**, maximum instantaneous noise levels would range from 91 to 101 dBA L_{max} at 25 feet, and hourly average noise levels would range from 77 to 95 dBA L_{eq}. The impact would be less than significant.

Pile driving operations would generate maximum instantaneous noise levels ranging from 95 dBA L_{max} for vibratory pile driving to 105 dBA L_{max} for impact pile driving at 50 feet. As shown in **Table 3.11-8**, at 25 feet, maximum instantaneous noise levels would range from 101 dBA L_{max} during vibratory pile driving to 111 dBA L_{max} during impact pile driving, and hourly average noise levels would typically range from 77 to 95 dBA L_{eq}. Noise from pile driving operations would potentially exceed the City's 110 dBA threshold at 25 feet.

As shown in **Table 3.11-8**, at the nearest receptors, which would be 1,135 to 4,365 feet from the center of the future visitor-serving uses area, maximum noise levels during non-pile-driving activities would range from 46 to 68 dBA L_{max}, and hourly average noise levels would typically range from 32 to 62 dBA L_{eq}. During discrete pile driving activities for building foundations, distances would range from 1,060 to 4,255 feet from the nearest receptors. At these distances, maximum noise levels would range from 66 to 79 dBA L_{max}. Noise levels would not exceed 110 dBA at the nearest surrounding receptors.

While the 110 dBA threshold would potentially be exceeded at 25 feet during pile driving activities, this threshold applies to sounds measured in and impacting a residential district of the City. The nearest liveaboards are more than 2,300 feet away and would be exposed to noise levels up to 72 dBA, which is below the 110 dBA threshold. The Pacific Shores Center office complex, located 1,165 feet away, would be exposed to noise levels up to 78 dBA, which is likewise below the 110 dBA threshold. Thus, the impacts at the nearest sensitive receptors would not exceed the threshold. This would be a less than significant impact.

3.11.5.1.1.4 Project Impact: Ferry Terminal and Visitor-Serving Uses

As shown in **Table 3.11-8**, while construction activities for the proposed project would be at or below 97 dBA L_{max} and at or below 90 dBA L_{eq} at the nearest noise-sensitive receptor, impact pile driving associated with construction of the ferry terminal and visitor-serving uses would potentially result in maximum instantaneous noise levels exceeding the City's 110 dBA threshold at 25 feet. However, this threshold applies to sounds measured in and impacting a residential district of the City. The 110 dBA threshold would not be exceeded at any off-site sensitive receptor. Therefore, this would be a less than significant impact.

3.11.5.1.2 Operations

The initial ferry service under project conditions would provide weekday service during the morning and afternoon commute periods, operating from approximately 6:00 AM to 10:30 AM in the mornings and 4:00 PM to 9:30 PM in the evenings. These ferries would be passenger-only, diesel-powered vessels capable of carrying up to 320 passengers. For purposes of this analysis, full buildout conditions are assumed, which would be phased in over time as demand and commute-period service are established. A conservative assumption was made for full buildout service that would consist of all-day service to San Francisco and Oakland with a higher frequency of service during morning and evening peak periods on weekdays, and weekend days, and special event service for the San Francisco route. This service was assumed to include an average of two vessels per hour between 6:00 AM and 9:30 PM, totaling 32 total vessels per day during weekdays and weekends. Ferry terminal operations would also include traffic noise increases and parking lot activities.

The future visitor-serving uses would include traffic noise increases, mechanical equipment, parking lot activities, and truck loading/unloading activities. The noise analysis for these operational activities is discussed below.

3.11.5.1.2.1 Ferry Terminal

The new ferry terminal would include new operational noise sources, such as project (vehicle) trips, ferry operations, and parking lot noise. Each of these operations is discussed below.

Project Trips

The Federal Highway Administration (FHWA) 77-108 Traffic Noise Calculator was used to calculate traffic noise levels along major roadways in the project vicinity using traffic volumes included in the transportation study completed for the proposed project, included as Appendix H of this Draft EIR. Observed vehicle mix data, posted speed limits, roadway widths, and the number of travel lanes were also input into the calculation model. The predicted noise levels were then compared to measured noise levels for calibration purposes, and adjustments were made to the model where appropriate. **Table 3.11-9** summarizes the Existing (2023) and Existing (2023) Plus Ferry Terminal CNEL noise levels at 75 feet from the centerline of the roadways. As described in Appendix H, 2023 is used for baseline transportation conditions consistent with the City's 2023 Transportation Impact Fee Study.[18]

When the Existing (2023) Plus Ferry Terminal volumes were compared to the Existing (2023) volumes, the proposed project's contribution to the overall noise level increase was calculated to be 2 dBA CNEL or less with the ferry terminal. **Table 3.11-9** summarizes the noise level increases calculated for the Existing (2023) Plus Ferry Terminal conditions compared to Existing (2023) conditions.

Since a 3 dBA CNEL or greater increase was not calculated along any segments in the project vicinity, this would be a less than significant impact.

Additionally, the traffic study included peak hour volumes along various segments of U.S. 101 for Existing (2023) and Existing (2023) Plus Ferry Terminal. Comparing the Existing (2023) Plus Ferry Terminal to the Existing (2023) volumes resulted in a noise level increase of less than 1 dBA CNEL. The impact would be less than significant.

[18] City of Redwood City. December 2023 (update). Redwood City Transportation Impact Fee Study. Prepared by Economic & Planning Systems, Inc. and Hexagon Transportation Consultants, Inc. Available: https://www.redwoodcity.org/home/showpublisheddocument/27445/638388322844730000.

Table 3.11-9 Existing and Existing Plus Ferry Terminal Modeled Noise Levels Along Roadways in the Project Vicinity

Roadway	Segment	Permanent Noise Level Increase Considered a Significant Impact, dBA CNEL	CNEL at 75 feet from the Roadway Centerline, dBA		Noise Level Increase, dBA CNEL[1]
			Existing (2023)	Existing (2023) Plus Ferry Terminal	Existing (2023) Plus Ferry Terminal
Seaport Boulevard loop	North of Hinman Road/Port of Redwood City entrance	3	60	62	2
Seaport Boulevard	Hinman Road/Port of Redwood City entrance to Seaport Court	3	64	65	1
	Seaport Court to Chesapeake Drive	3	64	65	1
	Chesapeake Drive to Blomquist Street/East Bayshore Boulevard	3	64	65	1
	Blomquist Street/East Bayshore Boulevard to U.S. 101 northbound ramps	3	70	70	0
Woodside Road/SR 84	U.S. 101 southbound ramps to Broadway	3	69	69	0
	Broadway to Middlefield Road	3	69	69	0
Blomquist Street	Seaport Boulevard to Maple Street	5	58	58	0
Maple Street	Blomquist Street to Veterans Boulevard	5	58	58	0
Veterans Boulevard	Woodside Road/SR 84 to Maple Street	3	68	68	0
	Maple Street to Whipple Avenue	3	70	70	0
Whipple Avenue	U.S. 101 northbound off-ramp to U.S. 101 southbound off-ramp/ Veterans Boulevard	3	66	66	0
East Bayshore Boulevard/ Haven Avenue	Seaport Boulevard to Marsh Road	5	59	59	0
Marsh Road/SR 84	Haven Avenue to U.S. 101 northbound ramps	3	72	72	0
	U.S. 101 northbound ramps to U.S. 101 southbound ramps	3	72	72	0

Source: Illingworth & Rodkin, Inc., 2025.

Note:

[1] The only receptors exposed to the 3 dBA CNEL increase would be businesses within the Portside Business Park. Since these businesses would not be considered noise-sensitive receptors, this would be a less than significant impact.

Ferry Operations

The vessel type proposed for the Redwood City service connecting to San Francisco and/or connecting to Oakland would be 320-passenger capacity vessels. Initially, three to four trips would be provided during the AM and PM commuting hours on weekdays, operating from approximately 6:00 AM to 10:30 AM and from 4:00 PM to 9:30 PM Depending on demand, midday service to either San Francisco or Oakland and weekend service to San Francisco may be added. Future plans might also involve extending the service to include special event services to San Francisco, similar to what WETA offers on existing routes.

As described previously, this analysis makes conservative assumptions for full buildout conditions, which would be phased in over time as demand and commute-period service are established. Full buildout service includes all-day service to San Francisco and Oakland that has a higher frequency of service during morning and evening peak periods on weekdays, and weekend days, and special event service for the San Francisco route. This service was assumed to include an average of two vessels per hour between 6:00 AM and 9:30 PM, totaling 32 total vessels per day during weekdays and weekends.

Ferries are expected to idle at the berth during 10-minute embarking/disembarking. For purposes of this analysis, a total of 20 minutes is assumed per hour per vessel to dock, unload incoming passengers, load outgoing passengers, and disembark. Vessels would dock overnight and on weekends at the WETA Central Bay Operations and Maintenance Facility (CBOMF) in Alameda and would not typically be berthed overnight or on weekends at the Redwood City terminal.

Two types of ferry noise sources could be expected at the proposed project: (1) ferry boat landing, idling, and departing (91 dBA SEL and 78 dBA L_{max} at 50 feet); and (2) ferry boat foghorn noise (90 dBA SEL and 84 dBA L_{max} at 50 feet). These noise source levels were obtained from Table 4-24 of the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual).[19] It is assumed that these source levels represent one ferry per hour. Using the formulas from Table 4-25 of the FTA Manual, the hourly average L_{eq} at 50 feet for a single ferry would be 55 dBA during ferry boat docking, idling, and departing, and 54 dBA for the foghorn, which typically operates for less than five minutes per departure or arrival in a given hour. As discussed in Chapter 2, Project Description, of this Draft EIR, the floating dock would be capable of supporting two ferries simultaneously. Noise source levels at 50 feet for two ferries would, therefore, range from 57 dBA L_{eq} for foghorn noise to 58 dBA L_{eq} during docking, idling, and departing under worst-case conditions.

With two ferries per hour between 6:00 AM and 9:30 PM, the estimated CNEL at 50 feet would be 60 dBA CNEL. The nearest property line of the project site would be 170 feet south of the ferry terminal. At this distance, maximum noise levels would be 73 dBA L_{max}, hourly average noise levels would be 48 dBA L_{eq}, and the CNEL would be 49 dBA CNEL. As discussed above, measurements in CNEL represent the average A-weighted noise level during a 24-hour day, obtained after the addition of 5 dB to each hourly average noise level (L_{eq}) between 7:00 PM to 10:00 PM and the addition of 10 dB to each L_{eq} between 10:00 PM and 7:00 AM. Thus, evening and nighttime penalties have been applied in the calculation.

[19] U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment. 2018. Transit Noise and Vibration Impact Assessment Manual. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

The additional vessels accessing the San Francisco and Oakland terminals due to the proposed project would not be expected to result in a significant noise impact due to the loud existing noise environments in the vicinity of both terminals and the limited number of peak hour and daily vessel trips the proposed project would generate.

The ferry terminal would be located to the west of the proposed parking lot, which would be about 1,290 to 4,150 feet from the property lines of the nearest receptors (i.e., Pacific Shores Center; Portside Business Park and Port of Redwood City Municipal Marina liveaboards; and Westpoint Harbor liveaboards). These distances are estimated based on the conceptual site plan (Figure 2-5 in Chapter 2, Project Description.) At these distances, maximum noise levels would range from 46 to 56 dBA L_{max}, hourly average noise levels would be at or below 30 dBA L_{eq}, and the CNEL would be at or below 31 dBA CNEL. Hourly average noise levels would not exceed the 55 dBA L_{eq} threshold at the project property line or at the receiving property lines (the nearest property boundary of the receptors). The impact would be less than significant.

When the operational CNEL generated by the ferry terminal activities is added to the ambient noise levels at each receptor, the permanent noise level increase would not be measurable or detectable (i.e., 0 dBA CNEL noise level increase). The impact would be less than significant.

Parking Lot Activities

The ferry terminal includes a surface parking lot for 250 passenger cars. The proposed project would also provide transit stops for bus and shuttle services and areas for ride share and general public passenger drop-offs and pick-ups.

Noise sources associated with the use of the parking lots would include vehicular circulation, loud engines, door slams, and human voices. The maximum noise level of a passing car at 15 miles per hour (mph) typically ranges from 45 to 55 dBA at a distance of 100 feet. The noise generated during an engine start is similar. Door slams cause slightly lower noise levels. The hourly average noise levels resulting from all of these noise-generating activities in a busy parking lot typically range from 40 to 50 dBA L_{eq} at a distance of 100 feet from the parking area. Assuming busy parking lot activity starting as early as 5:00 AM and ending by 10:00 PM under full buildout conditions, the CNEL would be 52 dBA CNEL at 100 feet.

The center of the proposed parking lot would be approximately 155 feet from the nearest project boundary. At this distance, noise levels due to parking lot activities would be 36 to 46 dBA L_{eq} and up to 49 dBA CNEL, assuming an active parking lot between 5:00 AM and 10:00 PM.

The center of the proposed parking lot would range from 950 to 4,185 feet from the nearest receiving property lines (excluding parking lots). At these distances, hourly average noise levels would range from below 20 to 30 dBA L_{eq}, and CNEL would range from 20 to 33 dBA CNEL. Hourly average noise levels would not exceed the 55 dBA L_{eq} threshold at the project property line or at the receiving property lines. The impact would be less than significant.

When the operational CNEL generated by parking lot activities at the proposed project is added to the ambient noise levels at each receptor, the permanent noise level increase would not be measurable or detectable (i.e., 0 dBA CNEL noise level increase). The impact would be less than significant.

3.11.5.1.2.2 Visitor-Serving Uses

Project trips and mechanical equipment are noise-generating sources that would be included with the visitor-serving uses. These noise sources are discussed below.

Project Trips

Using the FHWA 77-108 Traffic Noise Calculator with the same assumptions discussed above, CNEL noise levels were estimated for the Existing (2023) and Existing (2023) Plus Full Project at 75 feet from the centerline of the roadways. These calculated noise levels, along with the increase calculated when comparing the Existing (2023) Plus Full Project scenario to the Existing (2023), are summarized in **Table 3.11-10**.

Under the Existing Plus Full Project conditions, project-generated traffic would result in a permanent noise level increase of 3 dBA CNEL was calculated along two segments in the project vicinity:

- Seaport Boulevard loop – north of Hinman Road/Port of Redwood City entrance; and
- Seaport Boulevard – Hinman Road/Port of Redwood City entrance to Seaport Court.

Existing office buildings, a restaurant, and the Pacific Shores Club are located along the Seaport Boulevard loop, which would not be considered noise-sensitive receptors. While the Westpoint Harbor liveaboards are located near the Seaport Boulevard loop, Northpoint Court and parking lots are located between the receptors and the Seaport Boulevard loop, which would dominate the noise environment at the noise-sensitive receptors such that the incremental noise level increase from the proposed project would not have a significant impact on the liveaboards. Additionally, the noise level increase along the Seaport Boulevard would occur north of Seaport Court, and the liveaboards located in the Port of Redwood City Municipal Marina are located south of Seaport Court. Therefore, the only receptors exposed to the 3 dBA CNEL increase would be businesses within the Portside Business Park. Since these businesses would not be considered noise-sensitive receptors, this would be a less than significant impact.

When traffic volumes along U.S. 101 for Existing (2023) Plus Full Project were compared to the Existing (2023) volumes, a noise level increase of less than 1 dBA CNEL was calculated. The impact would be less than significant.

Table 3.11-10 Existing and Existing Plus Full Project Modeled Noise Levels Along Roadways in the Project Vicinity

Roadway	Segment	Permanent Noise Level Increase Considered a Significant Impact, dBA CNEL	CNEL at 75 feet from the Roadway Centerline, dBA		Noise Level Increase, dBA CNEL[1]
			Existing (2023)	Existing (2023) Plus Full Project	Existing (2023) Plus Full Project
Seaport Boulevard loop	North of Hinman Road/Port of Redwood City entrance	3	60	63	3[1]
Seaport Boulevard	Hinman Road/Port of Redwood City entrance to Seaport Court	3	64	67	3[1]
	Seaport Court to Chesapeake Drive	3	64	66	2
	Chesapeake Drive to Blomquist Street/East Bayshore Boulevard	3	64	66	2
	Blomquist Street/East Bayshore Boulevard to U.S. 101 northbound ramps	3	70	70	0
Woodside Road/SR 84	U.S. 101 southbound ramps to Broadway	3	69	70	1
	Broadway to Middlefield Road	3	69	70	1
Blomquist Street	Seaport Boulevard to Maple Street	5	58	58	0
Maple Street	Blomquist Street to Veterans Boulevard	5	58	58	0
Veterans Boulevard	Woodside Road/SR 84 to Maple Street	3	68	68	0
	Maple Street to Whipple Avenue	3	70	70	0
Whipple Avenue	U.S. 101 northbound off-ramp to U.S. 101 southbound off-ramp/ Veterans Boulevard	3	66	66	0
East Bayshore Boulevard/Haven Avenue	Seaport Boulevard to Marsh Road	5	59	59	0
Marsh Road/SR 84	Haven Avenue to U.S. 101 northbound ramps	3	72	72	0
	U.S. 101 northbound ramps to U.S. 101 southbound ramps	3	72	72	0

Source: Illingworth & Rodkin, Inc., 2025.

Note:

[1] The only receptors exposed to the 3 dBA CNEL increase would be businesses within the Portside Business Park. Since these businesses would not be considered noise-sensitive receptors, this would be a less than significant impact.

Mechanical Equipment

The proposed visitor-serving uses would include mechanical equipment, such as heating, ventilation, and air conditioning (HVAC) units. Detailed information pertaining to the specific type of unit, quantity of units, and locations on the project site was not available at the time of this study. However, based on previous experience with similar projects in the Bay Area, noise levels for HVAC units for buildings of this size would typically range from 64 to 66 dBA at 3 feet.[20] Assuming up to three units operating continuously at any given time each hour during a 24-hour period, hourly average noise levels would range from 69 to 71 dBA L_{eq} at 3 feet, and the CNEL would be 77 dBA at 3 feet.

These units would be at least 325 feet north of the southern boundary and at least 90 feet west of the eastern boundary of the project site, assuming the location of the proposed visitor-serving uses is at the northern portion of the site. At these distances, assuming no attenuation due to intervening buildings or elevations and continuous 24-hour operations, noise levels due to mechanical equipment at the future visitor-serving uses would be 39 to 41 dBA L_{eq} and 48 dBA CNEL.

Estimating the distances from the assumed location of the proposed mechanical equipment at the northern part of the project site to the nearest property lines of off-site receptors in the vicinity, distances would range from 910 to 4,340 feet from the nearest receiving property lines (excluding parking lots). At these distances, hourly average noise levels would range from below 20 to 21 dBA L_{eq}, and CNEL would range from below 20 to 28 dBA CNEL. Hourly average noise levels would not exceed the 55 dBA L_{eq} threshold at the project property line or at the receiving property lines. The impact would be less than significant.

When the operational CNEL generated by mechanical equipment at the proposed project is added to the ambient noise levels at each receptor, the permanent noise level increase would not be measurable or detectable (i.e., 0 dBA CNEL noise level increase). The impact would be less than significant.

Truck Loading and Unloading

Truck deliveries at the site are expected for the visitor-serving uses. Truck delivery noise would include maneuvering activities from medium trucks accessing the site. Trucks maneuvering would generate a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air brakes. Based on previous experience with similar projects in the Bay Area, these medium-sized trucks typically generate maximum noise levels ranging from 60 to 65 dBA at 50 feet.[21] It is assumed that one delivery for each use would occur daily. Assuming one to three delivery trucks access the site in one hour during a 24-hour period, the hourly average noise level would range from 59 to 64 dBA L_{eq}, and the CNEL would range from 45 to 50 dBA at 50 feet, assuming all deliveries would occur during daytime hours between 7:00 AM and 7:00 PM.

While a detailed site plan is unavailable at this time, the nearest truck deliveries would occur more than 325 feet north of the southern boundary and more than 90 feet west of the eastern boundary. At these distances, noise levels due to truck loading and unloading activities would be 55 to 60 dBA L_{max}, 54 to 59

[20] CDM Smith Team. 2025. Personal Communication.
[21] CDM Smith Team. 2025. Personal Communication.

dBA L_{eq}, and 40 to 48 dBA CNEL, assuming all deliveries would occur during daytime hours between 7:00 AM and 7:00 PM.

Loading docks at the future visitor-serving uses would be at least 910 to 4,340 feet from the nearest receiving property lines (excluding parking lots). At these distances, maximum noise levels would range from 21 to 40 dBA L_{max}, hourly average noise levels would range from 20 to 39 dBA L_{eq}, and CNEL would range from below 20 to 25 dBA CNEL. The City does not regulate noise from truck deliveries. However, since hourly average noise levels would not exceed 55 dBA L_{eq} or the ambient noise environment at the nearest receptors, this would be a less than significant impact.

When the operational CNEL generated by truck loading and unloading activities at the proposed project is added to the ambient noise levels at each receptor, the permanent noise level increase would not be measurable or detectable (i.e., 0 dBA CNEL noise level increase). The impact would be less than significant.

3.11.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Noise levels produced by operations of the proposed project combined (i.e., project traffic, ferries, mechanical equipment, parking lot noise, and truck maneuvering noise) would result in a permanent noise level increase of 2 dBA CNEL or less at existing noise-sensitive receptors in the project vicinity, which would not exceed the City's 3 dBA CNEL threshold. The impact would be less than significant.

Outdoor equipment noise levels generated by project activities would be less than 55 dBA L_{eq} at the nearest project site boundary, assuming the equipment to be set back a minimum distance of 90 feet. Additionally, all operations would be at or below 40 dBA L_{eq} at the receiving property lines of the nearest receptors (excluding parking lots). Therefore, project operations would not exceed the City thresholds of 55 dBA outside the property line or existing ambient conditions at the nearest receptors. This would be a less than significant impact.

3.11.5.1.3 Impact Summary

The proposed project would not result in a significant permanent noise level increase or permanent operational noise exceeding the City of Redwood's thresholds. Additionally, operational noise levels generated by the proposed project would not exceed existing ambient noise levels at off-site receptors surrounding the project site.

The City's temporary construction noise threshold of 110 dBA at 25 feet may be exceeded during the construction of the ferry terminal and visitor-serving uses when pile driving occurs. However, this threshold applies to sounds measured in and impacting a residential district of the City. The nearest residences are more than 2,300 feet away and would be exposed to noise levels up to 72 dBA, which is below the 110 dBA threshold. The Pacific Shores Center office complex, located 1,165 feet away, would be exposed to noise levels up to 78 dBA, which is likewise below the 110 dBA threshold. Thus, the impacts at the nearest sensitive receptors would not exceed the threshold. Therefore, this would be a less than significant impact.

3.11.5.1.4 Mitigation Measures

No mitigation is required for construction or operations.

3.11.5.2 Impact 3.11-2

Impact 3.11-2: Would the proposed project generate excessive ground-borne vibration that would exceed damage criteria?

3.11.5.2.1 Construction

The construction of the proposed project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities that could be a source of vibration include demolition, site preparation work, foundation work (including pile driving activities), and new building framing and finishing.

As reflected in **Table 3.11-3**, Caltrans recommends a vibration limit of 0.5 in/sec PPV for new residential and modern commercial/industrial structures, which typically consist of buildings constructed since the 1990s. A vibration limit of 0.3 in/sec PPV is used for older residential structures, which would apply to most structures built since the 1940s. For historic buildings or some older buildings, a vibration limit of 0.25 in/sec PPV would apply.

The Pacific Shores Center office buildings to the east and Pacific Shores Club building to the southeast of the project site are newer buildings constructed of modern construction materials. These buildings would be subject to the 0.5 in/sec PPV threshold. The older industrial buildings at the marine terminal operated by CEMEX to the south of the project site would be subject to the conservative 0.3 in/sec PPV threshold. As discussed in Section 3.4, Cultural Resources and Tribal Cultural Resources, of this Draft EIR, there are no historical buildings in the project vicinity. Therefore, all buildings surrounding the project site would be subject to either the 0.5 or 0.3 in/sec PPV Caltrans thresholds.

Table 3.11-11 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Pile driving activities typically range from 0.17 to 0.65 in/sec PPV for vibratory and impact driving, respectively, with upper ranges of 0.73 to 1.16 in/sec PPV at 25 feet.

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. **Table 3.11-11** also summarizes the distances to the 0.3 and 0.5 in/sec PPV thresholds.

Table 3.11-11 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet, in/sec	Minimum Distance to Meet Threshold, feet	
			0.3 in/sec PPV	0.5 in/sec PPV
Pile Driver (impact)	Upper range	1.158	86	54
	Typical	0.644	51	32
Pile Driver (sonic/vibratory)	Upper range	0.734	57	36
	Typical	0.17	15	10
Clam Shovel Drop		0.202	18	11
Hydromill (slurry wall)	In soil	0.008	1	< 1
	In rock	0.017	2	2
Vibratory Roller		0.21	19	12
Hoe Ram		0.089	9	6
Large Bulldozer		0.089	9	6
Caisson Drilling		0.089	9	6
Loaded Trucks		0.076	8	5
Jackhammer		0.035	4	3
Small Bulldozer		0.003	< 1	< 1

Sources: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment. 2018. Transit Noise and Vibration Impact Assessment Manual. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf; and Illingworth & Rodkin, Inc., August 2024.

Vibration levels are highest close to the source and then attenuate with increasing distance at the rate $\left({}^{D_{ref}}/_{D}\right)^{1.1}$, where *D* is the distance from the source in feet and D_{ref} is the reference distance of 25 feet. While construction noise levels increase based on the cumulative equipment in use simultaneously, construction vibration levels would be dependent on the location of individual pieces of equipment. Equipment scattered throughout the site would not generate a collective vibration level, but an impact pile driver, for instance, would generate the worst-case vibration levels for the buildings in close proximity to the hammer. Further, construction vibration impacts are assessed based on the potential for damage to buildings on receiving land uses, not at receptors at the nearest property lines.

3.11.5.2.1.1 Ferry Terminal

Vibration levels for pile driving activities were propagated from the location of the proposed ferry terminal and access pier, which is along the western shore of the project site and just inland, to the nearest existing off-site buildings surrounding the project site. The nearest off-site building to the pile driving activities would be the CEMEX industrial buildings just south of the project site. The nearest building would be approximately 300 feet from the pile driving activities. At this distance, vibration levels would be below 0.08 in/sec PPV, even during the upper range of impact driving. The Pacific Shores Center office complex would be more than 1,300 feet from the construction site. At 1,300 feet, vibration levels would be below 0.02 in/sec PPV.

Vibration levels during non-pile-driving activities, which would occur along the southern boundary of the proposed parking lot, would be as close as 175 feet from the nearest CEMEX industrial building to the

south of the project site. At this distance, vibration levels would be below 0.03 in/sec PPV. The Pacific Shores Center office complex would be approximately 700 feet from the nearest boundary of the project site, which would result in vibration levels of 0.005 in/sec PPV or below.

Additionally, up to 100 loaded trucks would access the site daily, driving as close as 55 feet from existing buildings. As shown in **Table 3.11-11**, loaded trucks generate vibration levels below 0.08 in/sec PPV at 25 feet. At 55 feet, vibration levels would be below 0.04 in/sec PPV, which would be well below the Caltrans thresholds.

Paving a segment of the Bay Trail would generate vibration; however, the nearest existing Pacific Shores Center office complex building would be 665 feet from the Bay Trail paving, and existing CEMEX buildings would be 545 feet or more from the Bay Trail. At these distances, vibration levels would be below 0.01 in/sec PPV. Additionally, removal and relocation of the railroad tracks would generate vibration levels up to 0.02 in/sec PPV at the nearest CEMEX building (would be less at the nearest Pacific Shores Center office complex). These vibration levels would result in a less than significant impact. However, waterfront park users would be as close as 60 feet from the railroad tracks removal and potentially as close as 20 feet from the Bay Trail paving. While no structural damage would occur at the waterfront park, users of the park would potentially perceive vibration from the construction activities up to 0.08 and 0.27 in/sec PPV, respectively, for the removal of railroad tracks and paving. This would be expected and would only occur for short periods of time. By use of administrative controls, such as notifying park users of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with the least potential to affect park users, perceptible vibration can be kept to a minimum and, as such, would not result in a significant impact.

Vibration levels generated during construction activities at the ferry terminal and landside facilities would not exceed applicable Caltrans criteria at each of the surrounding buildings, even during pile driving activities; the impact would be less than significant.

Roadway Improvements

Pile driving activities would not occur during roadway improvement construction. Vibration levels were propagated from the edge of the nearest roadway construction location to the nearest existing off-site buildings surrounding the project site. The surrounding off-site buildings would be approximately 200 to 2,485 feet from the nearest roadway improvements construction work. These buildings would be exposed to vibration levels up to 0.021 in/sec PPV.

Vibration levels generated during roadway improvement construction activities would not exceed applicable Caltrans criteria at each of the surrounding buildings; the impact would be less than significant.

3.11.5.2.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would require pile driving for the foundations. Vibration levels were propagated from the nearest possible location for pile driving to the nearest existing off-site buildings surrounding the project site. The surrounding off-site buildings would be approximately 420 to over 4,000 feet from the future visitor-serving uses. These buildings would be exposed to vibration levels below 0.06 in/sec PPV.

Vibration levels generated during construction activities of the visitor-serving uses would not exceed applicable Caltrans criteria at each of the surrounding buildings; the impact would be less than significant.

3.11.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Vibration due to construction activities of the proposed project would not exceed the Caltrans thresholds for damage to historical or conventional buildings surrounding the site. The impact would be less than significant.

3.11.5.2.2 Operations

Operations of the proposed project include ferry departure, idling, and arrival; stationary mechanical equipment; truck deliveries; and parking lot activities. Each of these on-site activities would generate perceptible vibration when receptors are located in close proximity (i.e., within 10 feet for equipment and vehicles and within 20 to 50 feet for heavy trucks and ferries) of the operating object. However, at distances beyond 50 feet, vibration levels would not be perceptible (less than 0.01 in/sec PPV) and, therefore, would not result in any damage to off-site buildings surrounding the site. Vibration due to operations of the proposed project would have no impact on the surrounding receptors.

3.11.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.11.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.11.5.3 Impact 3.11-3

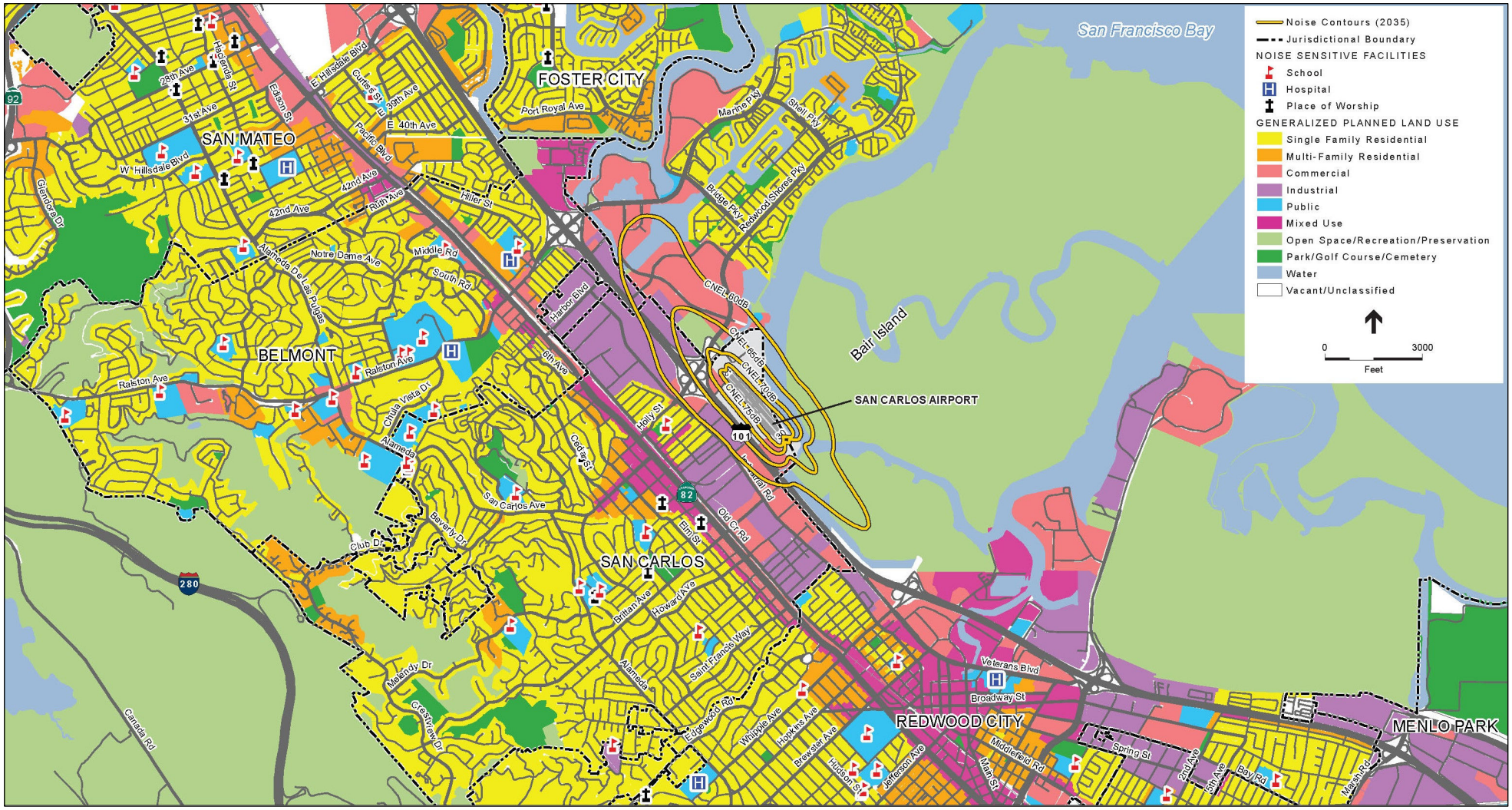
Impact 3.11-3: Would the proposed project expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations?

3.11.5.3.1 Construction

3.11.5.3.1.1 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed in **Section 3.11.3.1.3**, the project site is located within the AIA for the environs of the San Carlos Airport and the San Francisco International Airport. The project site is approximately 2.3 miles east of the San Carlos Airport, and well outside the 65 dB CNEL noise contour for the airport as identified in the San Carlos Airport ALUCP (see **Figure 3.11-3**). The San Francisco International Airport is located approximately 10.5 miles northwest of the project site and, according to the ALUCP for this airport, the project site lies well outside the 65 dB CNEL noise contour.[22] As such, the proposed project (ferry terminal and visitor-serving uses) would not expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations; the impact would be less than significant.

[22] City/County Association of Governments of San Mateo County. 2012. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport. Prepared by Ricondo & Associates in association with Jacobs Consultancy and Clarion Associates. Exhibit IV-5: Noise Compatibility Zones. Available: https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf.



Source: City/County Association of Governments of San Mateo County, 2015

Figure 3.11-3

2035 NOISE CONTOURS FOR SAN CARLOS AIRPORT

3.11.5.3.2 Operations

3.11.5.3.2.1 Project Impact: Ferry Terminal and Visitor-Serving Uses

The project site is well outside the 65 dB CNEL noise contours for the San Carlos Airport and San Francisco International Airport. As such, the proposed project (ferry terminal and visitor-serving uses) would not expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations; the impact would be less than significant.

3.11.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.11.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.11.5.4 Cumulative Impacts

"The incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the proposed project and traffic noise increases under future conditions or temporary construction noise from cumulative construction projects in the vicinity would be significant when considered together, even if not independently significant.

Vibration is a localized impact, and the impact assessment is based on instantaneous exposure. Multiple pieces of construction equipment operating from different sites simultaneously do not generate an additive vibration level. The nearest piece of equipment to the receptor is the highest concern. As described under Impact 3.11-2, the proposed project would not result in a significant vibration impact during construction or operations. Therefore, the forecasted growth coupled with the proposed project would not result in significant impacts related to vibration. The proposed project's contribution to an individual effect would not be cumulatively considerable.

As described under Impact 3.11-3, the proposed project (ferry terminal and visitor-serving uses) would not expose people residing or working in the project area to excessive noise levels (at or above 65 dB CNEL) from aircraft operations. The forecasted growth coupled with the proposed project would not result in significant impacts related to proximity of a public airport or public use airport. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.11.5.4.1 Cumulative Traffic Noise

A significant cumulative traffic noise increase would occur if two criteria are met: (1) if the cumulative traffic noise level increase was 3 dBA CNEL or greater for future noise levels exceeding 60 dBA CNEL or was 5 dBA CNEL or greater for future noise levels at or below 60 dBA CNEL at a noise-sensitive receptor; and (2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase at the same noise-sensitive receptor. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA CNEL or more attributable solely to the proposed project.

Using the FHWA 77-108 Traffic Noise Calculator with the same assumptions discussed above in **Section 3.11.5.1.2.1**, CNEL noise levels were estimated for the Cumulative, Cumulative Plus Ferry Terminal, and Cumulative Plus Full Project at 75 feet from the centerline of the roadways. These calculated noise levels, along with the increase calculated when comparing each cumulative scenario to the Existing (2023), is summarized in **Table 3.11-12**. Existing (2023) noise levels are provided in **Table 3.11-9** and **Table 3.11-10** above.

The traffic study completed for the proposed project included Cumulative (no project), Cumulative Plus Ferry Terminal, and Cumulative Plus Full Project traffic scenarios. By comparing all three cumulative traffic scenarios to the existing traffic volumes, a traffic noise increase of 3 dBA CNEL or more was calculated under the Cumulative Plus Ferry Terminal and Cumulative Plus Full Project scenarios along the following segments in the project vicinity, as summarized in **Table 3.11-12**:

- Seaport Boulevard loop – north of Hinman Road/Port of Redwood City entrance;
- Seaport Boulevard – Hinman Road/Port of Redwood City entrance to Seaport Court;
- Seaport Boulevard – Seaport Court to Chesapeake Drive;
- Seaport Boulevard – Chesapeake Drive to Blomquist Street/East Bayshore Boulevard; and
- Woodside Road/SR 84 – Veterans Boulevard/U.S. 101 southbound on-ramp to Broadway.

Table 3.11-12 Cumulative, Cumulative Plus Ferry Terminal, and Cumulative Plus Full Project Modeled Noise Levels Along Roadways in the Project Vicinity

Roadway	Segment	CNEL at 75 feet from the Roadway Centerline, dBA			Noise Level Increase, dBA CNEL[1]			Project's Contribution, dBA CNEL	
		Cumulative	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project	Cumulative	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project
Seaport Boulevard loop	North of Hinman Road/Port of Redwood City entrance	62	65	65	2	**5**	**5**	**3**	**3**[1]
Seaport Boulevard	Hinman Road/Port of Redwood City entrance to Seaport Court	66	68	69	2	**4**	**5**	**2**	**3**[1]
	Seaport Court to Chesapeake Drive	66	68	68	2	**4**	**4**	**2**	**2**[1]
	Chesapeake Drive to Blomquist Street/ East Bayshore Boulevard	66	67	68	2	**3**	**4**	**1**	**2**[1]
	Blomquist Street/East Bayshore Boulevard to U.S. 101 northbound ramps	71	71	71	1	1	1	0	0
Woodside Road/ SR 84	U.S. 101 southbound ramps to Broadway	72	72	72	**3**	**3**	**3**	0	0
	Broadway to Middlefield Road	71	71	71	2	2	2	0	0
Blomquist Street	Seaport Boulevard to Maple Street	59	59	60	1	1	2	0	1
Maple Street	Blomquist Street to Veterans Boulevard	60	60	60	2	2	2	0	0
Veterans Boulevard	Woodside Road/SR 84 to Maple Street	69	69	69	1	1	1	0	0
	Maple Street to Whipple Avenue	72	71	71	1	0	0	-1	-1

Roadway	Segment	CNEL at 75 feet from the Roadway Centerline, dBA			Noise Level Increase, dBA CNEL[1]			Project's Contribution, dBA CNEL	
		Cumulative	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project	Cumulative	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project	Cumulative Plus Ferry Terminal	Cumulative Plus Full Project
Whipple Avenue	U.S. 101 northbound off-ramp to U.S. 101 southbound off-ramp/ Veterans Boulevard	67	67	67	1	1	1	0	0
East Bayshore Boulevard/ Haven Avenue	Seaport Boulevard to Marsh Road	61	61	61	2	2	2	0	0
Marsh Road/SR 84	Haven Avenue to U.S. 101 northbound ramps	74	74	74	2	2	2	0	0
	U.S. 101 northbound ramps to U.S. 101 southbound ramps	74	74	74	2	2	2	0	0

Source: Illingworth & Rodkin, Inc., 2025.

Note:

[1] No existing noise-sensitive receptors are located along the Seaport Boulevard loop or along Seaport Boulevard north of Seaport Court or along Seaport Boulevard south of Chesapeake Drive. This would be a less than significant impact.

As discussed above, no existing noise-sensitive receptors are located along the Seaport Boulevard loop or along Seaport Boulevard north of Seaport Court. Additionally, no existing noise-sensitive receptors are located along Seaport Boulevard south of Chesapeake Drive. Therefore, the proposed project's traffic noise contribution to an individual effect in these locations would not be cumulatively considerable.

A 3 dBA CNEL increase was calculated for all three cumulative traffic noise scenarios (i.e., with and without the project) along Woodside Road/SR 84, which means the proposed project's contribution to the cumulative traffic noise increase would be 0 dBA CNEL. Therefore, the proposed project's traffic noise contribution to an individual effect in these locations would not be cumulatively considerable.

The existing liveaboards located at the Port of Redwood City Municipal Marina are located west of Seaport Boulevard between Seaport Court and Chesapeake Drive and are considered noise-sensitive receptors. Any liveaboards located within 300 feet of Seaport Boulevard would be exposed to a noise level increase of more than 3 dBA CNEL under both Cumulative Plus Ferry Terminal and Cumulative Plus Full Project conditions, and an increase over the Cumulative (no project) scenario of more than 1 dBA CNEL. Therefore, the proposed project's traffic noise contribution to an individual effect would be cumulatively considerable. The cumulative impact would be significant.

Additionally, the traffic study included peak hour volumes along various segments of U.S. 101 for Cumulative (no project), Cumulative Plus Ferry Terminal, and Cumulative Plus Full Project conditions. Comparing all three cumulative traffic scenarios to the Existing (2023) traffic volumes resulted in a noise level increase of less than 1 dBA CNEL along all segments, which would not meet the first cumulative condition. Therefore, the proposed project's traffic noise contribution to an individual effect along U.S. 101 would not be cumulatively considerable.

3.11.5.4.2 Cumulative Construction Noise

There are no planned or approved projects located within 1,000 feet of the proposed project site.[23] Therefore, forecasted growth coupled with the proposed project would not result in significant impacts related to construction noise. The proposed project's construction noise contribution to an individual effect would not be cumulatively considerable.

3.11.5.4.3 Cumulative Noise Impact Conclusion

A significant cumulative traffic noise impact would occur along Seaport Boulevard between Seaport Court and Chesapeake Drive under Cumulative Plus Ferry Terminal and Cumulative Plus Full Project conditions. The noise reduction methods included in the following mitigation measure would reduce the traffic noise increase:

[23] City of Redwood City. Redwood City Community GIS website. Available: http://webgis.redwoodcity.org/community/?task=pp&pid=96. Accessed October 6, 2025.

MM NOI-1: If there are liveaboards at the Port of Redwood City Municipal Marina that occupy slips within 300 feet of Seaport Boulevard when construction of either the ferry terminal or the visitor-serving uses (whichever comes first) is completed, MM NOI-1 shall be implemented to achieve a minimum noise reduction of 5 dBA CNEL at 75 feet. This shall be achieved by raising the existing berm between Seaport Boulevard and the marina from the Seaport Boulevard crosswalk at the northern end of the marina to the southern end of the marina. The berm shall have a minimum width of one foot at the top and a total height of five feet above the elevation of Seaport Boulevard. Preliminary noise modeling using SoundPLAN (version 8.2), a three-dimensional ray-tracing computer program, was developed to confirm the minimum height required to reduce noise levels along Seaport Boulevard between Seaport Court and Chesapeake Drive. The results of the model confirm a minimum reduction of 5 dBA at 75 feet and demonstrate a 3 dBA reduction at the nearest liveaboards, maintaining noise levels below 60 dBA CNEL. Final design of the berm that shows the minimum reduction of 5 dBA at 75 feet shall be confirmed during final design once project-level engineering drawings for the ferry terminal or visitor-serving uses (whichever comes first) are available.

The berm specified above in Mitigation Measure MM NOI-1 would reduce the potential permanent noise level increase under future cumulative conditions. Implementation of this measure would reduce the traffic noise impact of the proposed project to a less than significant level at receptors along Seaport Boulevard.

3.11.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts related to noise and vibration associated with construction and operation of the proposed project.

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Section 3.12
Public Services

3.12.1 Introduction

This section identifies existing conditions and evaluates the impacts to public services that may be affected by the proposed project; specifically, fire protection and police protection services.

As discussed in the Initial Study (IS), provided in Appendix A, Notice of Preparation (NOP)/IS, of this Draft EIR, the project area does not include any schools or other public facilities (i.e., hospitals, libraries) and would not result in a direct physical impact or alteration to any schools or other public facilities. Furthermore, the proposed project would not generate population growth that could increase the demands on services such as schools, hospitals, and libraries. Consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 15128, this analysis is available for review in Appendix A, and it is also summarized in Chapter 5, Other CEQA Considerations. Accordingly, analysis of the public services threshold related to schools and other public facilities is not repeated here. Impacts to parks are analyzed in Section 3.13, Recreation, of this Draft EIR. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.12.2 Methodology

The evaluation of impacts to fire and police protection services considers whether the proposed project would increase the demand for fire protection and law enforcement and, if so, if sufficient resources exist to meet this demand and maintain service levels and response times. If a need for additional fire and police protection services is identified, the analysis considers if this would result in the construction of new or altered fire and police protection facilities that would result in physical impacts on the environment. The City's Fire Department and Police Department were contacted to obtain information regarding their existing and projected service capacities and ability to adequately serve the proposed project. Additionally, City, Fire Department, and Police Department documentation was examined to obtain information regarding their existing and projected service capacities and ability to adequately serve the proposed project on the landside and waterside. Coast Guard requirements and WETA safety procedures and vessel safety requirements were also considered. The project plans would comply with regulations presented in **Section 3.12.3.1** and, therefore, compliance with applicable design and operational requirements is assumed in the following analysis.

3.12.3 Existing Conditions

3.12.3.1 Regulatory Setting

3.12.3.1.1 Federal

U.S. Coast Guard

Helping mariners in distress is a core mission of the U.S. Coast Guard (USCG). This includes search and enforcing safety regulations, conducting search and rescue operations, providing basic life support, and providing support to local firefighting agencies in order to save a life or to prevent a significant threat due

to a fire. California is part of the USCG 11th District, which covers California, Arizona, Nevada, and Utah, and coastal and offshore waters. The 11th District Headquarters is located on Coast Guard Island in Alameda. Sector San Francisco, the sector responsible for northern California, including the San Francisco Bay, is stationed on Yerba Buena Island which is in the San Franscico Bay between San Francisco and Oakland. USCG Station Golden Gate and USCG Station Vallejo are also located in the Bay Area.[1,2]

Marine Safety Manual

The Marine Safety Manual provides information and guidance to USCG personnel and the maritime industry. It provides the authority, background, and rationale for the various activities that are part of the federal program for vessel, facility, and equipment inspections. Pursuant to the USCG Firefighting policy in the Marine Safety Manual Volume VI, Chapter 8,[3] local authorities are principally responsible for maintaining necessary firefighting capabilities in U.S. ports and harbors; however, the USCG provides "assistance as available." Pursuant to Volume IV, Chapter 1, Section A.2 of the Marine Safety Manual, the Captain of the Port (COTP) administers the Marine Safety and Security (MSS) programs by enforcing laws and regulations related to the policing of waterside activities, including procedures for vessel traffic management, surveillance of ocean dumping activities, and navigation safety regulations. Volume IV, Chapter 1, Section E.1 of the Marine Safety Manual establishes that the COTP has authority to control vessel movements, including specifying times of entry, vessel speed, and restricting vessel operation in a hazardous area or under hazardous conditions.

Sector San Francisco Area Contingency Plan

As mandated by the Oil Pollution Act of 1990 and the National Contingency Plan (40 CFR 300), the 2022 revision of the Sector San Francisco Area Contingency Plan (ACP) was made effective July 19, 2022. The ACP is formally revised every five years and outlines the USCG's procedures and resources for responding to marine emergencies, with the goal of mitigating or preventing the threat of the discharge of oil or a hazardous substance from a vessel, offshore facility, or onshore facility. Section 8000 of the ACP discusses protocols for marine firefighting and identifies locations that may be selected as a potential place of refuge (PPOR)[4] for ships in need of assistance and seeking a place to dock, anchor, moor, and/or ground during an emergency. The USCG COTP, San Francisco, has jurisdiction over approving a PPOR site for a vessel in distress, and the USCG is the Jurisdictional Contact for the Bair Island area (Anchorage 9).[5]

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1 U.S. Coast Guard. 2026. United States Coast Guard – Pacific Area Sector San Francisco webpage. Available: https://www.pacificarea.uscg.mil/Our-Organization/Southwest-District/District-Units/Sector-San-Francisco/. Accessed May 4. 2026.

2 San Francisco Planning Department. May 2, 2018. Preliminary Mitigated Declaration Mission Bay Ferry Landing and Water Taxi Landing. Case No. 2017-08824ENV. Available: https://sfplanning.s3.amazonaws.com/sfmea/2017-008824ENV_MissionBayFerry_PMND_20180502.pdf.

3 U.S. Coast Guard. 1986. Marine Safety Manual, Volume VI, Chapter 8, Coast Guard Marine Fire Fighting Activities, page 8-1. Available: https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/Commercial-Vessel-Compliance/Marine-Safety-Manual/.

4 A potential place of refuge is a location where a vessel needing assistance can be temporarily moved to, and where actions can then be taken to stabilize the vessel, protect human life, reduce a hazard to navigation, and/or protect sensitive natural resources and other uses of the area. A place of refuge may include constructed harbors, ports, docks, anchorages, a natural embayment, potential grounding sites, or offshore waters.

5 U.S. Coast Guard. 2022. Sector San Francisco – Area Contingency Plan (ACP), Volume 1: Sections 1000-9740. Available: https://wildlife.ca.gov/OSPR/Contingency/SF-Spill-Contingency-Plan#volumei.

3.12.3.1.2 State

California Building Code

Part 9 of the California Building Code (CBC) (Title 24, California Code of Regulations) is the California Fire Code which contains regulations designed for safeguarding life and property from hazards associated with fire/explosion, handling of hazardous materials, and other hazardous conditions. This includes requirements for the installation of fire-resistant building materials, smoke detectors, and sprinkler systems for all new construction. Chapter 33 of the California Fire Code prescribes minimum safeguards for construction, alteration, and demolition operations to provide reasonable safety to life and property from fire during such operations.[6] This includes taking precautions to prevent fire, requirements for the handling of flammable materials, and requirements for providing vehicle access for fire apparatus at construction sites. The City of Redwood City has adopted the California Fire Code (Ordinance No. 2519, Redwood City Municipal Code Chapter 12, Article II).

California Health and Safety Code

The California Health and Safety Code (Sections 13000 *et seq*.) establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, and fire suppression training.

Penal Code of California

The Penal Code of California forms the basis for the application of criminal law in California. All law enforcement agencies within the State of California are organized and operated in accordance with the applicable provisions of the California Penal Code, which sets forth the authority, rules of conduct, and training for peace officers. All sworn municipal and county police officers, including those within the City's Police Department, are State peace officers, under the authority of California Penal Code Section 830.1. Penal Code Section 783 states that when a public offence is committed on a vessel navigating a river, bay, slough, lake, or canal, the jurisdiction is in any competent court through, on, or over the jurisdictional territory which the vessel passes in the course of its voyage, or in the jurisdictional territory of which the voyage terminates.[7]

Harbors and Navigation Code

The California Harbors and Navigation Code addresses harbor rules and regulations, including liveaboard ordinances, mooring rental agreements, and master fee schedules. It establishes minimum safety standards for boats and equipment, including requiring the use of certain equipment and prohibiting the use of equipment that does not meet safety standards. Section 655.2 of the Harbors and Navigation Code restricts speeds to five miles per hour within two hundred feet of landing floats with boats made fast (secured) or being used for embarkation or discharge of passengers, except for law enforcement or public safety activities.

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[6] 24 California Code of Regulations, Part 9 – California Fire Code (CFC), Chapter 33 – Fire Safety During Construction and Demolition. 2022 CFC with July 2024 Supplement. Available: https://up.codes/viewer/california/ca-fire-code-2022/chapter/33/fire-safety-during-construction-and-demolition#33.

[7] California Public Law. California Penal Code Section 783. Available: https://california.public.law/codes/penal_code_section_783.

3.12.3.1.3 Regional/Local

San Francisco Bay Vessel Mutual Assistance Plan

The San Francisco Vessel Mutual Assistance Plan (SF-VMAP)[8] is a mutual aid plan that identifies actions to be taken by USCG Sector San Francisco, the San Francisco Marine Exchange, and ferryboat operators for rapidly evacuating passengers from a stricken ferryboat. This plan was developed in recognition that emergency evacuation of a ferry vessel would exceed normal Coast Guard response and would require the assistance of nearby underway ferryboats to render assistance. The plan includes identification of roles and responsibilities, response objectives, activation procedures, logistics, training, and a list of participating organizations. The list of participating organizations includes several WETA ferry vessels operated by the Blue and Gold Fleet, who are under contract with WETA to operate the San Francisco Bay Ferry services. The SF-VMAP also includes a Ferryboat to Pier/Dock Compatibility Matrix that identifies which participating vessels can use which ferry berth, landing or pier locations.

The plan includes the following list of mandatory equipment that each member vessel must carry:

- Life floats, or existing buoyant apparatus, for at least 30 percent of the total persons permitted onboard;
- One 25-person inflatable buoyant apparatus (IBA), or an approved equivalent device;
- An effective and expedient means of transferring people from an IBA to the vessel;
- An effective and expedient means to retrieve personnel from the water;
- A spotlight for nighttime recovery operations; and
- All other equipment and personnel required by the vessel's Certificate of Inspection.
- All vessels will monitor and participate in the Vessel Traffic Service (VTS) on Channel 14 while they are operating on San Francisco Bay.

San Mateo County Fire Chief's Association 2026 Deployment and Alarm Plan

The 2026 Deployment and Alarm Plan, adopted December 16, 2025, reflects efforts among all the fire agencies in San Mateo County to establish an effective response plan that enhances the automatic aid system while also accounting for the specific agency special requirements and needs. The plan supports a standardized approach to incident responses across the County. The plan governs deployment and alarm response practices within the County and serves a similar operational function. The dispatch plan identifies frontline equipment and resources located at each fire station, including where Battalion Chiefs are stationed. The dispatch plan further states protocols for responses to fires and other emergency situations, including response zones by jurisdiction.[9]

[8] U.S. Coast Guard, Sector San Francisco Bay. May 30, 2021. San Francisco Vessel Mutual Assistance Plan (SF-VMAP).
[9] San Mateo County Fire Chief's Association. December 16, 2025. 2026 Deployment and Alarm Plan.

Redwood City General Plan

The Redwood City General Plan identifies goals that address providing and maintaining fire services and police services to the local community. The following are most relevant to the proposed project: [10]

- Goal PS-9a - Maintain the ability of the Redwood City community to respond promptly, efficiently, and effectively in the event of a major earthquake or other natural or human-caused disaster
- Goal PS-11 - Provide a high level of public safety services
- Goal PS-13 - Prevent the loss of life and mitigate the potential damage to structures by creating fire adaptive communities

The General Plan identifies specific policies and implementation programs to meet these goals. The implementation programs relevant to the proposed project include requiring new development to provide adequate access for emergency vehicles and fire-fighting equipment and to secure evacuation routes (Program PS-33); providing funding for police and fire departments to meet service requirements of new growth and specific needs (Program PS-39); requiring new development to provide adequate safety lighting (Program PS-40); requiring new development to be in areas with adequate firefighting protection (Program PS-13.1); requiring new development to comply with the latest building and fire codes (Program PS-13.4); and requiring new development to incorporate fire safe design (Program PS-13.5).

Redwood City Municipal Code

Chapter 12 Fire Prevention

Chapter 12 of the Redwood City Municipal Code is entitled Fire Prevention. Chapter 12, Article I, Section 12.1 through Section 12.6 sets restrictions on smoking, possession of lighted cigar, cigarettes, or pipe or igniting matches on any wharf, pier, dock, bulkhead, or marine facility in the port area except where designated. Smoking on vessels moored in the port area is only allowed in designated areas.

Chapter 12, Article II, Section 12.7 through Section 12.30 is the Redwood City Fire Code. The City has adopted the current California Fire Code, with amendments to address specific local conditions. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, requirements for minimum fire flow rates for water mains, and emergency responder radio coverage.

Chapter 12, Article III, Section 12.31 through Section 12.36 addresses fireworks use, discharge, and display within the City.

Chapter 44 Redwood City Harbor Administration

Chapter 44 of the Redwood City Municipal Code is entitled Redwood City Harbor Administration. It addresses safety and boat operations in waterways situated within the City. Specific sections of Chapter 44 are summarized herein. Section 44.6 identifies that the speed of boats on waterways west of marker 22 and in all sloughs may not exceed 10 miles per hour, and speed of boats within 200 feet from a marina

[10] City of Redwood City. October 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

and any anchored or moored boat may not exceed five miles per hour, with an exception for designated boat races. Section 44.6 is specified as being in addition to, and not in lieu of, Section 655.2 of the Harbors and Navigation Code, which, as described in **Section 3.12.3.1.2**, limits vessel speeds near occupied landing floats. Section 44.10 identifies that every boat entering the harbor becomes subject to the order and direction of the City and may only anchor or moor in areas designated by the Port. Section 44.11 through 4.24 include requirements related to mooring, anchorage, storage, and launching of vessels. Section 44.27 identifies penalties for violations of provisions set forth in Chapter 44.

3.12.3.2 Environmental Setting

The baseline for characterizing the existing public services setting is the conditions at the beginning of proposed project operations that consist of a cleared graded project site.

Redwood City Fire Department

The Redwood City Fire Department (Fire Department) provides fire protection and emergency response services to the City and the nearby City of San Carlos. The Fire Department includes seven fire stations and currently has over 90 staff members including firefighters, firefighter/paramedics, captains, battalion chiefs, fire prevention staff, training staff, and administrative staff.[11]

The project site is within Fire District #9, which is serviced by Fire Station #9 (755 Marshall Street) located 2.7 miles southwest of the project site. Fire Station #9 is the department headquarters and is equipped with several engines, and trucks. Station #9 also houses the Alternate Emergency Operations Center for Redwood City and the Alternate Fire Dispatch Center for San Mateo County Communications.[12] Fire Boat 9 is a MetalCraft FireStorm 36 specialized Twin jet vessel designed for search and rescue, fire and pumping operations, towing operations, and environmental and spill containment operations. Stationed at Westpoint Marina approximately 0.6 mile east of the proposed ferry terminal, Fire Boat 9 operates in all San Francisco Bay and adjacent waters. However, it is planned to be relocated, independent of the proposed project, to a planned First Responder Jet Dock facility at the Port, approximately 0.6 mile to the south in Redwood Creek.

Rescue Boat 11 is located at Fire Station #11, approximately three miles from the project site at 1091 Second Avenue. Rescue Boat 11 is a Zodiac 600 19-foot Rigid Hull Inflatable Boat with small fire pumping capabilities. Boat 11 operates in the San Francisco Bay.

Rescue Boat 20 is located at Fire Station #20, approximately eight miles from the project site at 680 Redwood Shores Parkway.[13] Rescue Boat 20 is an 11-foot Zodiac inflatable boat, used in the lagoons where Rescue Boat 11 is unable to launch. Only Rescue Boat 11 would need to be towed to water for deployment

[11] City of Redwood City. January 2023. Housing, Built Environment, Public Safety, Building Community & Natural Resources Elements Update to the Redwood City General Plan Final Environmental Impact Report. Prepared with the assistance of MIG, Inc., Marshall Day Acoustics, and Fehr & Peers. State Clearinghouse Number 2022100449. Available: https://www.redwoodcity.org/home/showpublisheddocument/28434/638500033673930000.

[12] City of Redwood City Fire Department. 2022. Fire Stations webpage. Available: https://www.redwoodcity.org/departments/fire-department/about-the-department/fire-stations. Accessed June 25, 2024.

[13] San Mateo County Fire Chief's Association. December 16, 2025. 2026 Deployment and Alarm Plan.

during a marine operation. During a water rescue, the Fire Department would deploy two engines, a fire boat, and a battalion chief, requiring seven total personnel.[14]

The Fire Department has a goal to respond to land-based fires in less than seven minutes. From 2019 through 2024, this goal was consistently met with an average incident response time of less than six minutes. As shown in **Table 3.12-1** the number of emergency calls has varied from 10,037 calls in 2020 to 15,727 calls in 2023. In 2023, the percentage of fires contained to the room of origin and structure of origin was 75 percent and 96 percent, respectively, while the percentage of fire extending beyond the building of origin was less than four percent.[15]

Table 3.12-1 Average Fire Response Times

Performance Measure	2020	2021	2022	2023	2024
Number of calls for service	10,037	13,750	14,663	15,727	14,957
Response time (minutes)	5:23	5:53	5:56	5:52	5:45

Source: City of Redwood City. 2025. Operating Budget - Fiscal Year 2025-26. Available: https://www.redwoodcity.org/home/showpublisheddocument/29928/638858742895830000.

The Fire Department's 2023 Standards of Cover Study and Community Risk Assessment (SOC/CRA) is a report that establishes recommended minimum requirements on the organization and deployment of fire suppression operations, emergency medical operations, and special operations. It provides technical information on existing fire services, regulations, and presents findings and recommendations to be used as a forward-looking planning framework.

The SOC/CRA finds that the Fire Department is using best practices and accomplishes its mission to serve a diverse population over a large service area. Its deployment system is strong but the report identifies existing challenges facing the Fire Department's deployment system in three key areas: (1) response times; (2) the rising rate of emergency medical incidents, particularly in Fire Station #9's service area; and (3) the coverage limitations of a single ladder truck and Battalion Chief.

The Fire Department's minimum effective response force (ERF) for building fires is five engines, one ladder truck, and two chief officers for a total of 21 personnel. Best practices and the SOC/CRA's recommendations are for an ERF travel time of 8:00 minutes for the first-due unit to arrive and a call-to-arrival travel time of 11:30 minutes for all units. **Table 3.12-2** shows the travel time and the total response time for 90th percentile performance over the SOC/CRA's three-year study period (2019-2021), during which there were only 16 building fires where the entire ERF arrived at the incident within outlier time limits. The SOC/CRA finds that ERF coverage is exceeding best practice response times by 3:34 minutes, primarily due to the Fire Department having only one ladder truck and chief, both from Fire Station #9.

[14] City of Redwood City Fire Department. May 1, 2023. Standards of Cover Study and Community Risk Assessment, Volume 1 of 2: Technical Report. Prepared by Citygate Associates, LLC. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/10A.%20ATTACHMENT%20A%20%E2%80%93%20STANDARDS%20OF%20COVER%20STUDY%20AND%20COMMUNITY%20RISK%20ASSESS.pdf?meetingId=2430&documentType=Agenda&itemId=9082&publishId=14487&isSection=false.

[15] City of Redwood City. 2025. Operating Budget - Fiscal Year 2025-26. Available: https://www.redwoodcity.org/home/showpublisheddocument/29928/638858742895830000.

Table 3.12-2 90th Percentile Emergency Response Force Performance (2019-2021)

ERF Response Measure	Overall	2019	2020	2021
Travel – Department-wide	12:40 (16)	10:49 (4)	06:00 (1)	13:45 (11)
Call to Arrival	14:51 (16)	10:49 (4)	06:00 (1)	15:04 (11)

Source: City of Redwood City Fire Department. May 1, 2023. Standards of Cover Study and Community Risk Assessment, Volume 1 of 2: Technical Report. Prepared by Citygate Associates, LLC. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/10A.%20ATTACHMENT%20A%20%E2%80%93%20STANDARDS%20OF%20COVER%20STUDY%20AND%20COMMUNITY%20RISK%20ASSESS.pdf?meetingId=2430&documentType=Agenda&itemId=9082&publishId=14487&isSection=false.

Table 3.12-1 and **Table 3.12-2** present calculated land-based response times. The Fire Department does not publish data on response times for marine incidents. Marine incidents include watercraft fires, searches for person(s) in water, and water and watercraft rescues. The Fire Department's marine safety service capacity includes 26 response personnel at the seven fire stations. According to the SOC/CRA and as shown in **Table 3.12-3**, the Fire Department responded to 50 marine incidents between 2019 and 2021, comprising 0.15 percent of the total service demand within that time period. Of the 50 incidents, 27 were responded to by personnel from Fire Station #9. The SOC/CRA also included an assessment of marine incident risk by planning zone, which indicated that Fire Stations #9 and #11 have a moderate risk of a marine incident occurring.[16]

Table 3.12-3 Marine Incident Service Demand

Hazard	Year	Planning Zone								Total	Percent Total Annual Service Demand
		Station 9	Station 10	Station 11	Station 12	Station 13 (San Carlos)	Station 16 San Carlos)	Station 20	Other		
Marine Incident	2019	8	0	0	0	0	0	0	3	11	0.10%
	2020	10	0	0	0	1	0	1	4	16	0.16%
	2021	9	2	10	0	0	0	2	0	23	0.19%
Total		**27**	**2**	**10**	**0**	**1**	**0**	**3**	**7**	**50**	**0.15%**
Percent Total Station Demand		0.26%	0.03%	0.27%	0.00%	0.02%	0.00%	0.17%	0.63%		

Source: City of Redwood City Fire Department. May 1, 2023. Standards of Cover Study and Community Risk Assessment, Volume 1 of 2: Technical Report. Prepared by Citygate Associates, LLC. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/10A.%20ATTACHMENT%20A%20%E2%80%93%20STANDARDS%20OF%20COVER%20STUDY%20AND%20COMMUNITY%20RISK%20ASSESS.pdf?meetingId=2430&documentType=Agenda&itemId=9082&publishId=14487&isSection=false.

The City's Fiscal Year 2024 – 2025 Budget lists major accomplishments relative to the Fire Department as including standardized recruitment processes for scheduling at least two recruitments annually, resulting in eight external recruitments.

[16] City of Redwood City Fire Department. May 1, 2023. Standards of Cover Study and Community Risk Assessment, Volume 1 of 2: Technical Report. Prepared by Citygate Associates, LLC. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/10A.%20ATTACHMENT%20A%20%E2%80%93%20STANDARDS%20OF%20COVER%20STUDY%20AND%20COMMUNITY%20RISK%20ASSESS.pdf?meetingId=2430&documentType=Agenda&itemId=9082&publishId=14487&isSection=false.

Redwood City Police Department

The Redwood City Police Department (Police Department) headquarters is approximately two miles southwest of the project site at 1301 Maple Street in Redwood City. The Department polices a 19 square-mile area that includes the project site.[17]

The Police Department has approximately 132 full time employees, including over 90 sworn officers.[18] The Department is divided into three organizational divisions: the Patrol Division, the Investigations Division, and the Administrative Services Division. The Patrol Division includes officers who respond to emergency and non-emergency calls for services, as well as specialized functions such as the Patrol Unit, Marine Unit, Canine Officers, Community Policing Activities Team, School Resource Officer Program, Traffic Enforcement Unit, and the Parking Enforcement Unit.[19]

The Police Department has a goal of responding to Priority 1 calls and arriving at the scene within seven minutes. Priority 1 calls include any emergency call where people are in danger of injury (shooting, stabbing), suicide in progress, officer needs help, major injury accident, plane crash, violent felony in progress, structure fires with persons inside, explosions, or other major fires, life threatening medical emergencies, missing children under 13, hold-up and panic alarms, and persons down or prowler calls. The Police Department's average response time (i.e., time of initial phone call to dispatch, to arrival of first officer on scene) to Priority 1 calls in 2024 averaged 9 minutes and 55 seconds.[20]

The Police Department's Marine Unit (Marine Unit) is responsible for investigating crimes and conducting marine rescues occurring on areas of the San Francisco Bay south of the San Mateo-Hayward Bridge. The Marine Unit, consisting of 12 marine officers, provides 24/7 emergency response, safety checks of the San Mateo-Hayward and Dumbarton bridges, and security at events at the Port throughout the year. The Marine Unit also tows abandoned boats and assists the USCG and other agencies as needed. During the summer holidays, the Marine Unit focuses on alcohol-related collisions and other boating safety violations, such as illegal mooring. Although there is currently no technology to continuously monitor vessel speeds in the water channels, the Marine Unit responds to safety concerns and complaints regarding speeding vessels.[21]

The Marine Unit averages 300 officer hours per year and incident responses averaging 20 marked boats (generally transient vessels attempting to illegally moor within Port waters), four search and rescues, and 12 towed boats per year. The Marine Unit has a response time goal of 30 minutes (i.e., time of initial phone call to dispatch, to arrival of first officer on scene), and usually meets this goal, with rare exceptions for late night/early morning hour calls.[22]

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[17] City of Redwood City Police Department. 2024. homepage. Available: https://www.redwoodcity.org/departments/police-department. Accessed June 25, 2024.

[18] City of Redwood City. 2023. Recommended Budget - Fiscal Year 2024-25. Available: https://www.redwoodcity.org/home/showpublisheddocument/28658/638544719055470000.

[19] City of Redwood City. January 2023. Housing, Built Environment, Public Safety, Building Community & Natural Resources Elements Update to the Redwood City General Plan Final Environmental Impact Report. Prepared with the assistance of MIG, Inc., Marshall Day Acoustics, and Fehr & Peers. State Clearinghouse Number 2022100449. Available: https://www.redwoodcity.org/home/showpublisheddocument/28434/638500033673930000.

[20] City of Redwood City. 2025. Operating Budget - Fiscal Year 2025-26. Available: https://www.redwoodcity.org/home/showpublisheddocument/29928/638858742895830000.

[21] Personal communication with John Gunderson, Captain – Patrol Division, Redwood City Police Department. August 7, 2024.

[22] Personal communication with John Gunderson, Captain – Patrol Division, Redwood City Police Department. August 7, 2024.

As described for the fire boat above, the police boat is planned to be located at the new First Responder Jet Dock at the Port, approximately 0.6 mile to the south in Redwood Creek. Assistance in marine law enforcement response is provided by the Fire Department, the San Mateo County Sheriff's Department, and the USCG if necessary. The Marine Unit may also borrow the Port's boat if needed/appropriate.

Port of Redwood City

The Port contracts with a private security provider who patrols the land area of the Port for 24 hours a day and seven days a week. The patrol area extends from Chesapeake Drive north to the Ferry Terminal project site.

Every peace officer of the State, City, harbor district, or other State subdivision is empowered to enforce California boating law.

San Mateo County Sheriff

A San Mateo County Sheriff's Office Training Unit is located at Coyote Point in San Mateo, approximately eight miles northwest of the project site. There is a vessel stationed at this location and is available to respond to marine incidents in Redwood City if assistance is needed.[23]

U.S. Coast Guard

The USCG Section San Francisco has federal jurisdiction over navigable waters of San Francisco Bay. The USCG Regulated Navigation Areas that enhance navigational safety by organizing traffic flow patterns on San Francisco Bay apply to large cargo vessels but not ferries. USCG maintains the Office of Vessel Traffic Safety (VTS) that applies to all vessels 40 meters or greater in length, all vessels certified to carry 50 or more passengers, and all commercial vessels eight meters or more that are towing another vessel. The VTS coordinates the safe and efficient transit of vessels in San Francisco Bay in an effort to prevent accidents and the associated loss of life and damage to property and the environment. The VTS issues direction to enhance vessel safety during conditions of vessel congestion, restricted visibility, adverse weather, or other dangerous conditions. According to the ACP, approximate response times for marine firefighting units to arrive are 30 minutes.[24]

Water Emergency Transportation Authority

In addition to overseeing the operation of the public ferry service in the San Francisco Bay Area, WETA has a legislative mandate (California Government Code Sections 66540.4 – 66540.69) to operate and coordinate emergency water transportation when regional transportation systems are severely disrupted due to a disaster or other events.[25] WETA is legislatively authorized to operate in coordination with the California Governor's Office of Emergency Services (Cal OES), USCG, the Federal Emergency Management Agency (FEMA), and the Metropolitan Transportation Commission (MTC) to coordinate and provide emergency water transportation throughout the San Francisco Bay.[26] In the event of a major disaster,

[23] Personal communication with John Gunderson, Captain – Patrol Division, Redwood City Police Department. August 7, 2024.

[24] U.S. Coast Guard. July 19, 2022. Sector San Francisco – Area Contingency Plan (ACP), Volume 1: Sections 1000-9740. Available: https://wildlife.ca.gov/OSPR/Contingency/SF-Spill-Contingency-Plan#volumei.

[25] San Francisco Bay Ferry. 2026. Emergency Response webpage. Available: https://sanfranciscobayferry.com/emergency-response/. Accessed February 25, 2026.

[26] San Francisco Bay Ferry. November 13, 2025. Understanding Emergency Water Transportation During Regional and Statewide Disasters. Available: https://sanfranciscobayferry.com/emergency-water-transportation/.

such as an earthquake, WETA would assist regional, State, and federal agencies by assessing and monitoring the status of water transit resources, coordinating additional mutual aid or contracted services, and working with WETA's own contracted ferry operator to create and implement an emergency water transportation plan. Coordination for such a plan would require coordination with MTC, Caltrans, USCG, surface transportation agencies, organizations operating shelters, and jurisdictions requesting transport. WETA would manage and operate water transportation routes that provide service between ferry terminals as part of a larger transportation system that connects care and shelter sites or base camps. WETA would also implement enhanced ferry service during disruptions to transportation infrastructure such as closure of the Bay Bridge, transit strikes, closure of the BART Transbay Tube, or major accidents.

WETA regularly coordinates its emergency response efforts with the MTC, other Bay Area transit agencies, the Cal OES, FEMA, USCG, and the Ports of San Francisco and Oakland. In addition to internal staff training that includes firefighting, person overboard drills, review of emergency procedures, and standard operation procedures related to fire, equipment failure and USCG reporting, WETA participates in several emergency response exercises and training workshops each year. Additionally, WETA's contracted operator — Blue & Gold Fleet — participates in operation-based exercises such as oil spill drills and Vessel Mutual Assistance Plan exercises.[27] Additional information on WETA's emergency response mandate is provided in Section 3.14, Transportation, of this Draft EIR.

3.12.4 Thresholds of Significance

The proposed project would result in significant impacts associated with public services if it would:

Impact 3.12-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection.

Impact 3.12-2: Result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities or need for new or physically altered police protection facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

3.12.5 Project Impacts

3.12.5.1 Impact 3.12-1

Impact 3.12-1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives?

[27] San Francisco Bay Ferry. 2026. Emergency Response webpage. Available: https://sanfranciscobayferry.com/emergency-response/. Accessed February 25, 2026.

3.12.5.1.1 Construction

3.12.5.1.1.1 Ferry Terminal

Construction of the proposed project would not directly impact any fire stations, as the closest stations are Fire Station #9 and Fire Station #11, located approximately two miles away from the construction area. The existing fire boat dock and planned new First Responder Jet Dock would also not be directly impacted.

Regarding indirect impacts, construction would be conducted in compliance with Chapter 33, Fire Safety During Construction and Demolition, of the California Fire Code, adopted under Redwood City Municipal Code Chapter 12: Fire Prevention. As discussed in **Section 3.12.3.1.2**, Chapter 33 of the California Fire Code prescribes minimum safeguards for construction and demolition operations to provide reasonable safety to life and property from fire during such operations. This includes precautions to prevent fire, specifications for the handling of flammable materials, and requirements for having available water supplies and temporary or permanent vehicle access for firefighting at construction sites.

Construction activities would result in a temporary daily increase in local population from construction workers traveling to and from the site daily, which may indirectly impact fire stations. It is estimated that between 2 and 44 construction workers would be on-site daily to construct the ferry terminal, depending on the phase of construction. Given the relatively low number of workers required and common nature of the anticipated construction, there would be a sufficient existing market in the City and the region as a whole to fill the jobs. Additionally, given the short-term duration of construction and challenging housing market, the construction workforce is expected to commute from the surrounding area and not relocate. Therefore, construction of the proposed project would not cause a permanent increase in local population resulting in increased demand on fire stations. Furthermore, construction activities would be conducted in accordance with the precautions and requirements associated with Chapter 33 of the California Fire Code, which are intended to maintain safe and orderly worksites and reduce fire-related risks. Requirements include pre-fire plans, training of personnel, fire protection devices, and maintaining access for firefighting personnel. Compliance with these regulations would reduce the risk of fire on the project site and, therefore, reduce the demand for fire protection services caused by the temporary presence of construction workers. Therefore, the temporary daily increase in the number of workers at the construction site that would occur during construction activities (typically between 7 AM and 7 PM, Monday through Friday, between 8 AM and 5 PM on Saturdays, and during nighttime hours if needed) would not have a material impact on fire department response capacity.

Construction would occur on the ferry terminal site. Roadway work would require some temporary lane closures and detours throughout the 15 month construction period for the ferry terminal and access improvements, including along the western leg of Seaport Boulevard; however, access routes through the areas where construction is occurring would be kept clear and unobstructed at all times in accordance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites. The temporary lane closures and detour routes would occur in coordination with the City, Pacific Shores Center management, the Redwood City Fire Department, and the Redwood City Police Department. Project construction would also be subject to a traffic control plan and the traffic lane closure requirements set forth by the City (see Section 3.14, Transportation, for additional information). The Fire Department and other first responders would be notified of traffic control measures in the traffic control plan during construction to coordinate emergency response routing and ensure that adequate access for emergency vehicles would be available. Access to the Pacific Shores

Center and the western public parking lot for the Bay Trail and waterfront park would be maintained. No closures on the eastern leg of the Seaport Boulevard loop road would occur; thus, access from the entrance of the Pacific Shores Center to the northern limits of the construction area would remain fully open at all times. This includes access to the eastern public parking lot for the waterfront park, which would remain fully accessible from the eastern leg of the Seaport Boulevard loop road.

Additionally, during construction activities associated with the vacation of Frontage Road and relocation of the railroad tracks east and southeast of the project site, ingress and egress from the CEMEX Cement Terminal would be kept clear to ensure unobstructed access would be maintained.

As described above, construction would not directly impact any fire station. Construction activities would proceed in compliance with State and local codes governing safe construction practices, and a traffic control plan would be prepared to maintain emergency access and control vehicular circulation during construction. Therefore, construction of the ferry terminal would not increase the demand for fire protection services or increase response times to a degree that new or physically altered fire protection facilities would be required. The impact would be less than significant.

3.12.5.1.1.2 Visitor-Serving Uses

As described for the ferry terminal construction, construction of the visitor-serving uses would comply with Chapter 33 of the California Fire Code to provide reasonable safety to life and property from fire during such operations. Compliance with these safeguards would reduce the fire risk during construction. Additionally, it is estimated that between 8 and 44 construction workers would be on-site daily to construct the visitor-serving uses, depending on the phase of construction. This temporary daily increase in the number of workers at the construction site would not have an indirect impact on fire department response capacity.

Construction activities for the visitor-serving uses would occur within the boundaries of the project site, with the exception of the ingress and egress of construction-related traffic, utility work, and removal of the concrete dock in Westpoint Slough. There would be no direct impact on any fire stations, existing fire boat dock, or the planned new First Responder Jet Dock. Construction activities would result in temporary access restrictions to areas under construction; however, access routes through the construction area would be kept clear and unobstructed at all times in accordance with Chapter 33, Fire Safety During Construction and Demolition, of the California Fire Code.

Temporary roadway lane closures would be needed to establish connections between new on-site utilities to the existing utility supply lines located in and along Seaport Boulevard. As discussed above for roadway work occurring with construction of the ferry terminal, any temporary lane closures needed for utility work would occur in coordination with the City, Pacific Shores Center management, the Redwood City Fire Department and the Redwood City Police Department and project construction would be subject to City requirements. Access to the ferry terminal and ferry terminal parking as well as the adjacent Pacific Shores Center, waterfront park, and public parking lot would remain available during construction, which would also ensure that adequate access for emergency vehicles would be available during construction.

As described above, construction would not directly impact any Fire Department facilities, construction activities would proceed in compliance with State and local codes governing safe construction practices, and emergency vehicle access would remain available. Therefore, construction of the visitor-serving uses would not increase the demand for fire protection services or increase response times to a degree that

new or physically altered fire protection facilities would be required. The impact would be less than significant.

3.12.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, the construction of the proposed project would not directly impact any fire stations, the existing fire boat dock, or the planned new First Responder Jet Dock. Further, the project site is already served by the Fire Department and all construction activities would comply with applicable Fire Code requirements, including site access requirements. During construction of the visitor-serving uses, the ferry terminal would be operational. As described above, a barrier such as temporary fencing would be used to separate the construction area for the visitor-serving uses from the proposed new ferry terminal use and parking and ingress and egress to the ferry terminal site would be kept unobstructed. Construction of the proposed project would not increase activity in the area such that response times would increase or new or expanded facilities would be required. Thus, construction of the ferry terminal and visitor-serving uses would not require new or physically altered fire protection facilities that would cause significant environmental impacts. Therefore, construction of the proposed project would have a less than significant impact.

3.12.5.1.2 Operations

3.12.5.1.2.1 Ferry Terminal

The ferry terminal would not establish new residential units or create enough employment opportunities that would directly or indirectly lead to an increase in population. The ferry terminal would not be staffed and ferry crews would generally embark and disembark at the WETA Central Bay Operations and Maintenance Facility (CBOMF) in Alameda. It is anticipated that 8 crews of four people would be needed for ferry operations. The City's Housing Element identifies that in 2018, Redwood City had 40,418 workers living within the City borders and an estimated 69,400 jobs.[28] Plan Bay Area 2050+ anticipates there being 5.4 million jobs in the Bay Area in 2050. Of this increase, 593,000 new jobs are projected for San Mateo County by 2050.[29] Ferry operators are not large employers in the context of overall employment in the region and employees may not necessarily live in Redwood City. Therefore, the proposed project would not increase the demand for fire protection services as a result of population growth.

The proposed project would increase the number of visitors to the project site during ferry vessel embarking and disembarking; as stated in Section 3.13, Recreation, the ferry terminal would generate an average of 40 patrons traveling by foot and 44 patrons traveling by bicycle during the full service weekday, or an additional 84 potential new users of the Bay Trail daily across the ferry service hours. Therefore, usage of the Bay Trail and other park resources would not be substantially more than existing levels. The project site is already served by the Redwood City Fire Department and the incremental increase in visitors to the project area resulting from operation of the ferry terminal and access improvements would not substantially increase the demand for fire protection services such that new or expanded facilities would be needed to maintain acceptable performance objectives.

[28] City of Redwood City. 2023-2031 Housing Element, City of Redwood City. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/28334/638484500539830000.

[29] Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

The ferry vessels serving the Redwood City routes would conform with SF-VMAP, ACP, and San Francisco Bay Ferry emergency management protocols and safety requirements, including crew member participation in regular drills, coordination with local authorities, and the provision of onboard safety gear. This includes maintaining an on-board fire suppression system and equipping all ferries with USCG-approved IBA life rafts that could be deployed in a water emergency to provide a floatation device for stranded passengers and crew. Each IBA generally accommodates between 15 to 30 people and, consistent with WETA requirements, there would be enough IBAs on board to accommodate a minimum of 30 percent of the vessel's maximum passenger capacity (e.g., a 320-person ferry vessel would have a minimum IBA capacity of 96 passengers).

While WETA ferry vessels carry required emergency equipment, including IBAs for at a minimum of 30 percent of the total persons permitted onboard, if the terminal or the ferry vessels south of the San Mateo-Hayward Bridge were to require emergency assistance, the City Fire Department would respond. Additionally, in the event of a marine emergency, any of the fire agencies in San Mateo County participating in the automatic aid agreement could deploy vehicle and personnel assistance as needed in accordance with the 2026 Deployment and Alarm Plan. The police marine unit and other local marine resources, such as the San Mateo County Sheriff's Department, could provide additional support as needed. The USCG would also support the City Fire Department consistent with terms of the Marine Safety Manual discussed in **Section 3.12.3.1.1**. In the event of a marine fire in this area, the USCG would direct vessels in need of assistance to the nearest PPOR to dock, anchor, moor, and/or ground per the ACP discussed in **Section 3.12.3.1.1**. For areas around Bair Island, the nearest PPOR is Anchorage 9, near the southern shore of Alameda Island. To ensure that IBAs would be available for the total persons permitted onboard the vessels, under the proposed project, the Port would also provide the Redwood City Fire Department with IBAs to supplement the vessel's capacity. The IBAs provided to the Fire Department would ensure 100 percent IBA capacity is available to accommodate one 320-passenger ferry vessel. The Fire Department IBAs would be stored on land in an existing fenced enclosure adjacent to the First Responder Jet Dock. The IBAs could quickly be loaded into the fire boat and deployed to assist ferry passengers should a ferry vessel be stricken south of the San Mateo-Hayward Bridge. The Redwood City Fire Department would also have the opportunity to participate in training exercises that occur under the SF-VMAP program.

Further, the proposed project includes an amendment to the SF-VMAP to add the ferry vessels serving the Redwood City ferry routes to the list of participating organizations and to also add the vessels and the Redwood City ferry terminal to the Ferryboat to Pier/Dock Compatibility Matrix. The inclusion of the Redwood City ferry operations as part of the SF-VMAP would ensure that additional support and resources are available from other underway ferries operating in San Francisco Bay.

With vessel safety systems in place, including on-board fire suppression systems, IBAs, safety training, mutual aid, as well as the addition of the IBAs provided by the Port described above, operation of the ferry terminal would not require additional or expanded firefighting facilities to maintain response objectives in responding to fire or other emergencies at the project site beyond what is currently being provided.

All waterside and ferry terminal landside improvements, including site access improvements, Seaport Boulevard widening and railroad track relocation, would comply with City, State, and federal agency permitting and Fire Code requirements identified in **Section 3.12.3.1**. This includes the designing of access

roads and driveways to accommodate the passage of fire trucks and engines and meeting minimum requirements for fire flow rates for water mains.

As described above, operation of the ferry terminal would not result in population growth or intensity of new uses that would substantially increase the demand for fire protection services. The proposed project would comply with Fire Code requirements; with the existing fire protection services and resources in place, operation of the ferry terminal would not adversely impact response times, service ratios, or performance objectives. Operation of the ferry terminal would not require the construction of new, or physical alteration of existing, fire protection facilities that would cause significant environmental impacts. Therefore, the impact would be less than significant.

3.12.5.1.2.2 Visitor-Serving Uses

The visitor-serving uses would not establish new residential units that could directly lead to an increase in population that would increase demand for fire protection services. As stated in the Housing Element of the Redwood City General Plan, in 2018, there were a total of 40,418 workers living in the City and an estimated 69,400 jobs in the City. In 2019, there were a total of 30,155 housing units. This indicates a lack of workforce housing options within the City. The Housing Element acknowledges that many workers in the City commute long distances to more affordable neighborhoods. New home construction has not kept pace with the number of jobs the local economy is adding, leading to a housing shortage. Given the challenging housing market, the workforce for the visitor-serving uses is anticipated to commute from the surrounding area and not relocate. Therefore, operation of the visitor-serving uses would not cause a permanent increase in local population resulting in increased demand for fire protection services.

The Fire Department already provides fire protection services to the project site. Additionally, per the automatic aid system discussed in the 2026 Deployment and Alarm Plan, additional fire agencies in San Mateo County could provide fire protection services to the project site in the event of an emergency.

The future visitor-serving uses would result in an increase in visitors at the project site, which would increase the demand for fire protection services. As described in **Section 3.12.3.2**, the Fire Department has several challenges including response times and a rising rate of emergency medical incidents in Fire Station 9's service area. However, the SOC/CRA found that the Fire Department has a strong deployment system and is accomplishing its mission to provide fire protections services over its service area. Further, the proposed visitor-serving uses are consistent with the type and density of land uses allowed at the project site under the City's General Plan (see Section 3.10, Land Use, and Section 5.4, Growth-Inducing Impacts). Therefore, the proposed project would not generate unplanned job growth and/or unplanned visitor-generating amenities. Additional firefighters, personnel, and equipment would be allocated through the City's budget process over time. If and when the construction or expansion of facilities to accommodate additional personnel or equipment becomes necessary, environmental review under CEQA, General Plan provisions, and City and Zoning Code regulations would all apply, and thereby avoid significant environmental impacts.

The transportation analysis (see Section 3.14 and Appendix H) has estimated that there would be an average of approximately 3,850 new daily one-way vehicle trips associated with the visitor-serving uses (e.g., 1,925 round trips). This includes on-site employees and hotel and restaurant patrons, and service and delivery trips. The temporary visitors would not represent a permanent increase in population to the project site. Additionally, all new construction would be designed and constructed to meet applicable

current State and local codes and ordinances related to fire protection, such as the inclusion of fire suppression systems. The fire safety devices that would be installed in all new buildings in accordance with the California Fire Code include fire sprinkler systems, fire detection and early warning systems, modern fire-resistant materials, and smoke evacuation systems. The proposed project would also be required to comply with all regulations of the City of Redwood City Fire Prevention Code (Chapter 12) which establishes provisions and requirements for the safe construction and maintenance of property, facilities, conditions, materials, equipment, fire prevention, and alarm systems. Architectural plans would be reviewed and approved by the City of Redwood City Fire Department prior to project implementation and all buildings would be subject to fire inspections after they are built and in operation to ensure that required fire protection safety features, including building sprinklers and emergency access, are implemented. Enforcement of code requirements pertaining to emergency vehicle access, as well as building standards, would also ensure maintenance of adequate response times and emergency access. Therefore, the visitor-serving uses would comply with fire safety requirements and would not increase activity in the area such that response times would increase or that new fire protection facilities would be required.

As described above, operation of the visitor-serving uses would not result in unplanned growth or intensity of new uses that would substantially increase the need for new fire protection facilities. With the existing fire protection services in place and compliance with Fire Code requirements, operation of the visitor-serving uses would not adversely impact response times, service ratios, or performance objectives, and, therefore, would not require the construction of new, or physical alteration of existing, fire protection facilities that would cause significant environmental impacts. The impact would be less than significant.

3.12.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

With implementation of the proposed project, there would not be increased demand for fire protection services as a result of population growth. While there would be new uses established and an increase in the number of people visiting, transiting, and working at the project site and vicinity, the project site is already served by the Fire Department and all new development would comply with applicable Fire Code requirements. Operation of the proposed project would not increase activity in the area such that response times would increase. Operation of the ferry terminal and visitor-serving uses would not require new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities that would cause significant environmental impacts. Therefore, the impact would be less than significant.

3.12.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.12.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.12.5.2 Impact 3.12-2

Impact 3.12-2: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities or need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives?

3.12.5.2.1 Construction

3.12.5.2.1.1 Ferry Terminal

Construction of the proposed project would not directly impact any City police station as the headquarters is located approximately two miles away from the construction area. The existing police boat dock and planned new First Responder Jet Dock would also not be directly impacted.

Construction activities would result in temporary access restrictions to areas under construction; however, as described above in **Section 3.12.5.1** under Impact 3.12-1, construction would be conducted in compliance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites. Access for firefighting vehicles would also be available for police vehicles, thereby ensuring that police protection access is maintained.

Construction activities would result in a temporary daily increase in local population from construction workers traveling to and from the site for their work shift. As the project site is located in a densely populated urban area, the construction workforce would come from the surrounding area and not relocate. The temporary daily increase in the number of workers at the construction site would not have a material impact on police department response capacity.

Construction would occur on the ferry terminal site. It would also involve widening Seaport Boulevard and relocating railroad tracks on Frontage Road, which would require temporary lane closures and detours, including along the western leg of Seaport Boulevard. However, access routes through the areas where construction is occurring would be kept clear and unobstructed at all times as discussed for fire protection facilities above. The temporary lane closures and detour routes would occur in coordination with the City, Pacific Shores Center management, the Redwood City Fire Department, and the Redwood City Police Department. Project construction would also be subject to a traffic control plan and the traffic lane closure requirements set forth by the City (see Section 3.14, Transportation, for additional information). The Police Department and other first responders would be notified, as appropriate, of traffic control measures in the traffic control plan during construction to coordinate emergency response routing and ensure that adequate access for police vehicles in emergency situations would be available. Access to the Pacific Shores Center and the western public parking lot for the Bay Trail and waterfront park would be maintained. No closures on the eastern leg of the Seaport Boulevard loop road would occur; thus, access from the entrance of the Pacific Shores Center to the northern limits of the construction area would remain fully open at all times. This includes access to the eastern public parking lot for the waterfront park, which would remain fully accessible from the eastern leg of the Seaport Boulevard loop road.

Additionally, during construction activities associated with the vacation of Frontage Road and relocation of the railroad tracks east and southeast of the project site, ingress and egress from the CEMEX Cement Terminal would be kept clear to ensure unobstructed access would be maintained.

As described above and in **Section 3.12.5.1**, construction would not directly impact the police station, construction activities would proceed in compliance with State and local codes governing safe construction practices, and a traffic control plan would be prepared to maintain emergency access and control vehicular circulation during construction. Therefore, construction of the ferry terminal would not increase the demand for police protection services or increase response times to a degree that new or physically altered police protection facilities would be required. Therefore, the impact would be less than significant.

3.12.5.2.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would occur within the boundaries of the project site, with the exception of the ingress and egress of construction-related traffic, utility work, and removal of the concrete dock in Westpoint Slough and there would be no direct impact on the police station, existing police boat dock, or the planned new First Responder Jet Dock. Construction activities would result in temporary access restrictions to areas under construction; a barrier such as temporary fencing would be used to separate the construction area for the visitor-serving uses from the proposed new ferry terminal use and parking. As described above in **Section 3.12.5.1**, access routes through the construction area would be kept clear and unobstructed at all times as required by California Fire Code Chapter 33 Section 3310. Access for firefighting vehicles would also be available for police vehicles, thereby ensuring that police protection access is maintained.

Temporary roadway lane closures would be needed to establish connections between new on-site utilities to the existing utility supply lines located in and along Seaport Boulevard. As discussed above for roadway work occurring with construction of the ferry terminal, any temporary lane closures needed for utility work would occur in coordination with the City, Pacific Shores Center management, the Redwood City Fire Department and the Redwood City Police Department and project construction would be subject to City requirements. Access to the ferry terminal and ferry terminal parking as well as the adjacent Pacific Shores Center, waterfront park, and public parking lot would remain available during construction of the visitor-serving uses, which would also ensure that adequate access for the Police Department and other first responders would be available during construction.

As described above, construction would not directly impact Police Department facilities, construction activities would proceed in compliance with State and local codes governing safe construction practices, and emergency vehicle access would remain available. Therefore, construction of the visitor-serving uses would not increase the demand for police protection services or increase response times to a degree that new or physically altered police protection facilities would be required. Therefore, the impact would be less than significant.

3.12.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The construction of the proposed project would bring contractors and construction crews to the project area during construction of the ferry terminal and, following construction of the ferry terminal, during construction of the visitor-serving uses. The construction would not directly impact the police station, existing police boat dock, or the planned new First Responder Jet Dock. Further, the project site is already served by the Police Department and all construction activities would comply with California Fire Code Chapter 33 Section 3310 requirements for maintaining emergency vehicle access. During construction of the visitor-serving uses, the ferry terminal would be operational. As described above, a barrier such as temporary fencing would be used to separate the construction area for the visitor-serving uses from the

proposed new ferry terminal use and parking and ingress and egress to the ferry terminal site would be kept unobstructed. Construction of the proposed project would not increase activity in the area such that response times would increase or new or expanded facilities would be required. Thus, construction of the ferry terminal and visitor-serving uses would not require new or physically altered police protection facilities that would cause significant environmental impacts. Therefore, construction of the proposed project would have a less than significant impact.

3.12.5.2.2 Operations

3.12.5.2.2.1 Ferry Terminal

As described in **Section 3.12.5.1.2.1**, operation of the ferry terminal would not result in a permanent increase in population that would require the addition of police protection services or facilities. The proposed project would increase the number of visitors to the project site during ferry vessel embarking and disembarking; additionally, the Bay Trail expansion and sidewalk and bicycle trail improvements could encourage a small increase in the number of recreational visitors to the project area. The project site is already served by the Redwood City Police Department and their Marine Unit and the incremental increase in visitors to the project area resulting from operation of the ferry terminal and access improvements would not substantially increase the demand for police services. In addition, as identified in **Section 3.12.3.2**, the Port is patrolled by private security for 24 hours a day and seven days a week, and these patrols would include the ferry terminal site, which would enhance site safety.

Once the ferry terminal is operational, the frequency of the Marine Unit's water patrols would increase. Three additional full-time employees would be required to provide constant on-water coverage. The addition of full on-water coverage would enable marine incident response times to be maintained. However, no additional vessels would be needed; no more than one water patrol vessel would be deployed at any given time. There is currently sufficient space available in existing police facilities to accommodate three additional officers[30] and, therefore, no new, or physical alteration of existing, police protection facilities that would cause significant environmental impacts would occur.

All waterside and ferry terminal landside improvements, including site access improvements, Seaport Boulevard widening and railroad track relocation, would comply with City, State, and federal agency permitting and requirements for emergency vehicle access. As such, roadways would be designed to accommodate the passage of emergency vehicles.

With the addition of three new full-time employees, operation of the ferry terminal would not adversely impact response times, service ratios, or performance objectives; and would not require the construction of new, or physical alteration of existing, police protection facilities that would cause significant environmental impacts. Therefore, the impact would be less than significant.

3.12.5.2.2.2 Visitor-Serving Uses

As described in **Section 3.12.5.1.2.2**, operation of the visitor-serving uses would not result in a permanent increase in population that would require the addition of police protection services or facilities. The Police Department already provides police protection services to the project site. While the future visitor-serving uses would result in new buildings and an increase in temporary visitors and employees at the project site, operation of the visitor-serving uses would not require additional police staff or resources that are

[30] Personal communication with John Gunderson, Captain – Patrol Division, Redwood City Police Department. August 7, 2024.

not currently planned for the area.[31] The operation of the visitor-serving uses would not increase activity in the area such that response times would increase to the extent that new or expanded police protection facilities would be required.

As described above, operation of the visitor-serving uses would not result in population growth or intensity of new uses that would substantially increase the demand for police protection services. With the existing police protection services in place, operation of the visitor-serving uses would not adversely impact response times, service ratios, or performance objectives, and it would not require the construction of new, or physical alteration of existing, police protection facilities that would cause significant environmental impacts. Therefore, the impact would be less than significant.

3.12.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

With implementation of the proposed project, there would not be increased demand for police protection services as a result of population growth. While there would be new uses established and an increase in the number of people visiting, transiting, and working at the project site and vicinity, the project site is already served by the Police Department and operation of the visitor-serving uses would not require additional police staff or resources that are not currently planned for the area. Operation of the proposed project would not increase activity in the area such that response times would increase. Thus, operation of the ferry terminal and visitor-serving uses would not require new or physically altered police protection facilities that would cause significant environmental impacts. Operation of the proposed project would have a less than significant impact.

3.12.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.12.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.12.5.3 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The context for assessing cumulative environmental impacts associated with expansion of facilities needed to provide fire and police services is based on the jurisdiction providing such services. For the cumulative impacts analysis for public services, the geographic scope is the service area associated with the City's fire and police protection services. The Fire Department serves the City of Redwood City and the City of San Carlos and also participates in the State's Master Mutual Aid Plan and supports the

[31] Personal communication with John Gunderson, Captain – Patrol Division, Redwood City Police Department. August 7, 2024.

California Task 3 Urban Search and Rescue Team and the South Bay Incident Management Team.[32] The Police Department serves the City of Redwood City and participates in a mutual aid operations agreement with the San Mateo County Sheriff's Department.[33]

Cumulative impacts could occur if growth within the service area of each department requires expansion of servicing facilities, such as construction of a new fire or police station, that have not already been accounted for in the City's planning process. Fire, police, and emergency services in the City are maintained and expanded through property taxes and collection of fees that grow incrementally as development occurs within a service area. Funding for the provision of new equipment, facilities, and staffing is determined as part of the City's annual fiscal budget process. Under the City's current adopted budget for Fiscal Year 2025-2026, the Fire Department is authorized for 102 full-time employees (FTE), which is an increase of 11 over the previous fiscal year. The Police Department is authorized for 136 FTEs, which is an increase of 11 over the previous fiscal year.[34]

As new facilities are required, environmental review would commence consistent with CEQA to analyze and mitigate, if required, any potential significant physical environmental impacts. As discussed in Section 3.0.4 of this EIR, Association of Bay Area Governments (ABAG) growth projections for South San Mateo County used as the basis of the cumulative impacts analysis in this EIR take into consideration the future growth anticipated in local general plans, including the City of Redwood City General Plan, which acknowledges the City's population is anticipated to grow by nearly 20 percent between 2020 and 2040. Additionally, the City's General Plan contains policies to encourage the development of a passenger ferry terminal at the Port. Based on such acknowledgement of, and planning for, future growth within the City and the development of the Port, and the attendant fire and police protection needs, significant cumulative impacts related to substantial physical deterioration of fire stations and law enforcement facilities are not expected to occur.

Furthermore, although the proposed project would increase the number of visitors to the project site from current conditions, implementation of the proposed project would not involve the construction of housing units and therefore would not generate permanent population growth or otherwise substantially increase the demand for police or fire protection services. With the existing police and fire protection services in place, operation of the proposed project would not result in significant impacts relative to police and fire services.

The adopted growth projections and proposed project together would not result in substantial adverse physical impacts associated with the construction of new or physically altered fire and police protection facilities (i.e., fire and police stations), the construction of which would cause significant environmental impacts not already addressed as part of the proposed project or accounted for in the City's planning process, in order to maintain adequate services. The forecasted regional growth and land use changes coupled with the proposed project would not result in significant impacts related to public services. The individual effect of the proposed project would not be cumulatively considerable.

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[32] City of Redwood City. June 2024. Adopted Budget Fiscal Year 2024-2025. Available: https://www.redwoodcity.org/home/showpublisheddocument/29472/638755828195700000.

[33] San Mateo County Police Chiefs & Sheriff Association. April 3, 2013 (revision date). Mutual Aid Protocol. Available: https://www.cityofsanmateo.org/DocumentCenter/View/81859/SMCoCSA-Mutual-Aid-Protocol.

[34] City of Redwood City. 2025. Operating Budget - Fiscal Year 2025-26. Available: https://www.redwoodcity.org/home/showpublisheddocument/29928/638858742895830000.

3.12.5.3.1 Mitigation Measures

No mitigation is required.

3.12.5.3.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to public services would be less than significant.

3.12.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to public services associated with construction and operation of the proposed project.

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Section 3.13
Recreation

3.13.1 Introduction

This section identifies the existing recreational resources within the project area and analyzes whether the proposed project would increase the use of those resources such that substantial physical deterioration would occur. This section also discusses whether the proposed project includes or would require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.13.2 Methodology

The impacts analysis provides a qualitative comparison of the existing baseline conditions and the effects of the proposed project. The analysis identifies the existing and proposed recreational facilities and then evaluates whether there could be an increase in park and recreational use that would lead to the substantial physical deterioration or degradation of recreational resources or result in the need for new or expanded facilities that could have adverse physical impacts on the environment not already addressed as part of the proposed project.

According to the National Recreation and Park Association, people with nearby access to parks and recreation facilities are more likely to use those facilities.[1] An increased demand for, and/or use of, parks and recreational facilities is generally associated with the increase of housing or population into an area. The proposed project does not include residential uses, and, given that the project area is in a well-established urban community with a large housing base and housing stock, new employment demand from project construction and operation would be met within the existing and future labor market in the City and the region.

The U.S. Census estimates the City population was 80,512 in 2022 and the San Mateo County population was 726,353. Commuting occurs regularly in the region; the City's Housing Element identifies that in 2018, Redwood City had 40,418 workers living within the City borders and an estimated 69,400 jobs.[2] The California Employment Development Department predicts that construction jobs within San Francisco and San Mateo counties will grow by 5.8 percent between 2022-2032, and leisure and hospitality jobs will grow by 26.6 percent between 2022-2032.[3] Due to the growing nature of these fields, it can be assumed that there would be a sufficient existing labor market in the City and the region as a whole to fill the jobs.

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[1] National Recreation and Park Association. September 28, 2023. U.S. Adults Place High Value on Parks and Recreation. Available: https://parksandrecmag.mydigitalpublication.com/october-2023/page-23.

[2] City of Redwood City. February 13, 2023. 2023 – 2031 Housing Element. Available: https://www.redwoodcity.org/home/showpublisheddocument/26396/638137962943070000.

[3] California Employment Development Department. 2022-2032 Industry Employment Projections, San Francisco-Redwood City-South San Francisco Metropolitan Division (San Francisco and San Mateo Counties). Available: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Flabormarketinfo.edd.ca.gov%2Ffile%2Findproj%2Fsanf%24IndProj.xlsx&wdOrigin=BROWSELINK.

Therefore, no increased demand for, or use of, recreational facilities associated with population growth would occur due to the implementation of the proposed project.

Consequently, this evaluation considers whether the proposed project would bring temporary visitors to the area that would use the existing recreational resources to a degree that the increased use would result in substantial physical deterioration or degradation of the resource. While most project patrons are assumed to not be drawn to the project site with the specific purpose of using these recreational resources (i.e., project patrons would primarily be ferry commuters, hotel and restaurant guests, and employees), there may be use of the recreational resources, such as use of the bicycle trail or Bay Trail, to access the ferry terminal or visitor-serving uses. Ferry users or hotel patrons may also use the Bay Trail while at the project site for purposes such as seeing the views, birdwatching, or exercising. Additionally, the new bicycle trail and expanded Bay Trail may bring some additional visitors to the project area to use the new and existing recreational resources. This evaluation also considers whether the proposed project would disrupt existing use of the project area's recreational resources due to either short-term construction or long-term project operations and, if so, if this could result in recreational users using recreational facilities at a different location that could result in deterioration of another recreational resource, or that could result in the need for new facilities outside of the project area with potential adverse physical effects on the environment.

Due to the frequent use of Westpoint Slough and Redwood Creek by recreational users (e.g., boaters), the waterways are considered a recreational facility and are analyzed in addition to the Bay Trail and nearby parks.

3.13.3 Existing Conditions

3.13.3.1 Regulatory Setting

3.13.3.1.1 Federal

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA), established in 1972 and administered by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources. The overall purpose is to balance competing land and water issues in the coastal zone. The San Francisco Bay Conservation and Development Commission (BCDC) oversees development under its jurisdiction, which includes the San Francisco Bay and shoreline. Under the CZMA, the BCDC has authority to review activities by federal agencies that could affect the area under its jurisdiction. Therefore, under the CZMA, all applicable projects within BCDC's jurisdiction should be consistent with BCDC's plans and policies.

U.S. Aids to Navigation System

This system uses colors, shapes, numbers, and light characteristics maintained by the U.S. Coast Guard (USCG) to mark navigable channels, waterways, and obstructions adjacent to these. Each has a purpose and helps in determining location, getting from one place to another, or staying out of danger. The goal of the U.S. Aids to Navigation System is to promote safe navigation on the waterway.

3.13.3.1.2 State

Public Resources Code

The State Public Park Preservation Act (Public Resources Code, Sections 5400 to 5409) is the primary instrument for protecting and preserving parkland in California. Under the Act, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation or land or both are provided to replace the parkland. This ensures no net loss of parkland and facilities.

Public Resources Code Section 5076 requires counties and cities to consider trail-oriented recreational use demands in developing specific open space programs during the development of a general plan. Cities are also required to consider the feasibility of integrating their trail routes with appropriate segments of the State system.

Harbors and Navigation Code

The California Harbors and Navigation Code addresses rules and regulations related to boating, navigation, and harbors, including rules for operating vessels and safety regulations for vessels. Section 655.2 of the Harbors and Navigation Code restricts speeds to five miles per hour within two hundred feet of landing floats with boats made fast (secured) or being used for embarkation or discharge of passengers, except for law enforcement or public safety activities.

3.13.3.1.3 Regional/Local

McAteer-Petris Act

In 1965, the McAteer-Petris Act designated the BCDC as the agency responsible for the protection of the San Francisco Bay and its natural resources. BCDC fulfills this mission as the agency responsible for the implementation of the San Francisco Bay Plan (Bay Plan).

San Francisco Bay Plan

The San Francisco Bay Plan (Bay Plan) was completed and adopted by the BCDC in 1968 and submitted to the Legislature and the Governor of California in 1969. The geographic scope of the Bay Plan includes the San Francisco Bay, the shoreline band 100 feet above mean high tide, salt ponds, managed wetlands, and certain waterways that include Redwood Creek. At the project site, BCDC has jurisdiction over the Redwood Creek Channel, water bordering the site, the shoreline along the site, and 100 feet inward from the shoreline.[4]

The Bay Plan provides a formula for developing the Bay and shoreline to their highest potential, while protecting the Bay as an irreplaceable natural resource.[5] The Bay Plan includes a range of policies on public access, water quality, project design, and dredging and fill. The Bay Plan also designates shoreline areas that should be reserved for water-related sports, industry, and public recreation; airports; and wildlife areas.

The Bay Plan designates certain areas as Priority Use Areas (PUAs) for ports, water-related industry, airports, wildlife refuges, and water-related recreation which are to be reserved for those purposes and

[4] San Francisco Bay Conservation and Development Commission (BCDC). 2024. BCDC's Jurisdiction webpage. Available: https://bcdc.ca.gov/resources/jurisdiction/#shoreline-band. Accessed October 23, 2024.

[5] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

identifies specific policies for these areas. The policies are enforceable and have the same authority as the policies in the text of the Bay Plan. The Redwood Creek East PUA contains the project site. There are two Wildlife Refuge PUAs near the project site — the Bair Island/Redwood Shores Ecological Reserve PUA to the northwest of the project site, approximately 1,300 feet across Redwood Creek, and the South San Francisco Bay PUA to the east of the project site, approximately 800 feet across Westpoint Slough. The primary purposes of Wildlife Refuge PUAs are the protection of threatened or endangered native species, preservation and enhancement of unique habitat types or significant wildlife habitat, and the propagation and feeding of aquatic life and wildlife. These areas also have the potential to accommodate compatible recreational activities that protect wildlife, educate the public, foster support for wildlife protection, and expand opportunities for wildlife-dependent recreational activities and volunteering.

Bay Plan policies for the two wildlife PUAs near the project area are listed in **Table 3.13-1**.

Table 3.13-1 Bay Plan Policies Concerning Wildlife Refuge PUAs in the Surrounding Area

Plan Map and Policy Number	Policy Text
Plan Map 6: Policy 8	**Greco Island** - Protect harbor seal haul-out and pupping site where harbor seals rest, give birth and nurse their young.
Plan Map 6: Policy 11	**Bair Island Ecological Reserve** - Restore and enhance habitat for the benefit of wildlife and aquatic life. Protect harbor seal haul-out and pupping sites where harbor seals rest, give birth and nurse their young. Provide wildlife compatible recreation opportunities.
Plan Map 6: Policy 12	**Redwood Shores** - Provide continuous public access to Bay and to Belmont, Steinberger, Smith, and Corkscrew Sloughs if in a manner protective of sensitive wildlife; where appropriate include paths, beaches, small parks, and wildlife observation areas. Protect harbor seal haul-out and pupping site where harbor seals rest, give birth and nurse their young. Projects allowed only if protective of harbor seals and other sensitive wildlife.

Source: BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

The Bay Plan identifies the Bay as the most important open space in the region and explains that the Bay and shoreline provide unique recreational opportunities. The Bay Plan also states that ferry terminals in waterfront parks and marinas can improve public access to parks. However, if ferry terminals in waterfront parks and marina are not properly located, improved and managed, ferry terminals can disrupt use of water-oriented recreational facilities. The ferry terminal site is located adjacent to but not within a waterfront park. The Bay Plan further states that completing the San Francisco Bay Trail will provide the public with better access to the Bay and to parks along the shoreline and that the goal of the Bay Trail is to create a continuous multi-use trail around the Bay which can be used for non-vehicular uses and connect shoreline parks.

Bay Plan Recreation Policies that are applicable to the proposed project are summarized below:

- **Policy 1** - Diverse and accessible water-oriented recreational facilities, such as marinas, launch ramps, beaches, and fishing piers, should be provided to meet diversified needs, and be distributed around the Bay to accommodate a broad range of water-oriented recreational activities for people of diverse backgrounds, ages, and income levels.
- **Policy 3** - Recreational facilities, such as waterfront parks, trails, marinas, live-aboard boats, fishing piers, and beaches should be encouraged and allowed if they meet specified standards, which include:

  - Complete segments of the Bay Trail, where appropriate.
  - Water-oriented commercial recreational establishments, such as restaurants, specialty shops, private boatels (boat hotels), recreational equipment concessions, and amusements, should be encouraged in urban areas adjacent to the Bay.

- **Policy 6** - To enhance the appearance of shoreline areas, and to permit maximum public use of the shores and waters, flood control projects should be carefully designed and landscaped and, whenever possible, should provide for recreational uses of channels and banks.

As discussed in Section 3.10, Land Use, within the Bay Plan, a variety of public access policies are identified that regulate how public access should be encouraged, designed, and maintained within BCDC's jurisdiction. The following Public Access Policy applicable to the proposed project is also related to recreation:

- **Policy 10** - Access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available. Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.

San Francisco Bay Seaport Plan

The San Francisco Bay Seaport Plan (Seaport Plan) is part of the Bay Plan and is used by BCDC to help guide coordination of the planning and development of port terminals.[6] Within the Seaport Plan, priority use area boundaries are defined, and policies are outlined for cargo forecast, priority use areas, climate change, environmental justice, and coordination. The specific policy in the Seaport Plan relevant to recreation in the project area is in the Preserving and Enhancing Priority Use Areas section and is listed below:

- **Policy 9 - Public Access.** Consistent with Bay Plan Public Access policies, public access uses should be permissible in Port Priority Use Areas provided the use does not significantly impair the efficient utilization of the port area. When public access or in-lieu access is required, amenities that enhance the public's access to or understanding about the working waterfront, including visual corridors, temporary access, or other programmatic elements should be encouraged, provided that such proposals are consistent with all applicable Bay Plan Public Access policies.

San Francisco Bay Trail Design Guidelines and Toolkit

The San Francisco Bay Trail Design Guidelines and Toolkit developed by the Metropolitan Transportation Commission provides goals and direction for site planning and trail design for any project that includes a segment of the Bay Trail.[7] The Guidelines establish seven design principles to provide design objectives for the Bay Trail to maximize safety and access by a broad spectrum of people. Objectives that are relevant to the proposed project are listed in **Table 3.13-2**.

[6] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/wp-content/uploads/sites/354/2024/03/seaport-plan.pdf.

[7] San Francisco Bay Trail. June 2016. San Francisco Bay Trail Design Guidelines and Toolkit. Available: https://mtc.ca.gov/sites/default/files/documents/2021-10/Bay-Trail-Design-Guidelines-and-Toolkit.pdf.

Table 3.13-2 San Francisco Bay Trail Objectives Relevant to the Proposed Project.

San Francisco Bay Trail Design Guidelines and Toolkit
Objective 3.1 User Experience and Safety
▪ Providing an adequate buffer to create a safe and positive user experience that considers design elements of sights, sounds and fresh air. ▪ Developing the Bay Trail with open sight lines so that existing and future users can more easily avoid obstructions and also for personal safety.
Objective 3.2 Continuity and Connectivity
▪ Incorporating the Bay Trail into all shoreline projects and providing clear, continuous and seamless transitions to adjacent segments of the Bay Trail and local and regional trail systems. ▪ Connecting the Bay Trail to all transit sources within walking and bicycling distance, such as water taxis, ferries, buses and rail systems. ▪ Coordinating with transit agencies to include amenities such as bike stations, bike racks, and real-time applications that encourage use.
Objective 3.3 Universal Access
▪ Incorporating accessibility into the design of the Bay Trail and all related trail amenities, to the maximum feasible extent. For additional information, refer to the U.S. Access Board's Design Guidelines (www.access-board. gov), the California Building Code, and local regulations on accessibility.
Objective 3.4 Proximity to the Bay
▪ Locating the trail as close to the shoreline as possible.
Objective 3.5: Expected Levels of Use
▪ Providing a wider trail where the anticipated volume of use is expected to be higher than typical.
Objective 3.6: Compatibility with Wildlife
▪ Locating the Bay Trail and related use areas to avoid habitat fragmentation, vegetation trampling, and erosion. ▪ Providing designated trails in desirable areas to deter users from creating informal access into and through sensitive locations. ▪ Incorporating educational and interpretive elements about the value of habitat resources and related species.
Objective 3.7: Sea Level Rise
▪ Where possible, dedicating a linear public access corridor for the Bay Trail with sufficient width to allow the trail in the future to migrate to higher elevations should sea level rise threaten the trail.

Source: San Francisco Bay Trail. June 2016. San Francisco Bay Trail Design Guidelines and Toolkit. Available: https://mtc.ca.gov/sites/default/files/documents/2021-10/Bay-Trail-Design-Guidelines-and-Toolkit.pdf.

Redwood City General Plan

The Redwood City General Plan[8] provides the basis for the City's land use and development policies and represents the community's basic values, ideals, and aspirations. The General Plan establishes policies to guide development and conservation through 2030. The State-mandated General Plan elements (Land Use, Circulation, Conservation, Housing, Open Space, Noise, Safety, and Environmental Justice) are organized into five elements under the City's General Plan as follows:

- Built Environment Element
- Housing Element
- Building Community Element

[8] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

- Public Safety Element
- Natural Resources Element

General Plan Policies

Key policies and strategies of the General Plan relevant to this analysis of the proposed project's impacts related to recreation are included in **Table 3.13-3**. The set of policies listed in **Table 3.13-3** is not an exhaustive list of all of the General Plan policies applicable to the proposed project; rather, it is a selection of recreational policies relevant to the impacts discussion in **Section 3.13.5** below.

Table 3.13-3 City of Redwood City General Plan Recreation Policies Relevant to the Proposed Project

Building Community Element	
Policy BC-5.2:	Complete the Bay Trail through Redwood City.
Policy BC-5.5:	Develop a strategy for the reclaiming of Redwood Creek as a functional natural waterway with recreation amenities along its banks.
Policy BC-5.6:	Provide access to water-based recreation opportunities in San Francisco Bay and along bayfront lands.

Source: City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

Chapter 44 Redwood City Harbor Administration

Chapter 44 of the Redwood City Municipal Code, Redwood City Harbor Administration, addresses safety and boat operations in waterways situated within the City. Specific sections of Chapter 44 are summarized herein. Section 44.6 identifies that the speed of boats on waterways west of marker 21 and in all sloughs may not exceed 10 miles per hour, and speed of boats within 200 feet from a marina and any anchored or moored boat may not exceed five miles per hour, with an exception for designated boat races.

3.13.3.2 Environmental Setting

The project site is in the port industrial center of Redwood City, which is on the northern edge of the city limit for the City of Redwood City. **Figure 3.13-1** and **Figure 3.13-2** show the major parklands and open spaces in the project area, including a segment of the Bay Trail and waterfront park. As shown on **Figure 3.13-1**, the project site is located along Redwood Creek and Westpoint Slough, which offers a variety of maritime activities (discussed below). Currently, the project site is not open to the public and does not offer any public access or recreational opportunities. Existing access to the project site is from the CEMEX marine terminal to the south. While Frontage Road terminates at an entrance of the project site, this entrance is not currently used. The project area also includes the Seaport Boulevard corridor, a portion of the waterfront park, the western public parking lot and existing maintenance building site, the relocated maintenance building site, a portion of the Frontage Road, the proposed relocated railroad tracks, and established navigation lanes from the project site to the ferry terminals in the Port of San Francisco and the Port of Oakland. Within the project area and the surroundings, recreational facilities support a variety of functions, including both passive and active recreation uses, as described below. These recreational facilities do not all have quantifiable participant capacity and depend upon activities, which can vary on a day-to-day basis. If certain facilities are being used, individuals may elect to participate in ongoing activities, wait for activities to end, or choose alternate activities in the area.



Source: CDM Smith Team, 2025

Figure 3.13-1



Source: CDM Smith Team, 2025

Figure 3.13-2

Access to the project site is from the CEMEX marine terminal to the south. While Frontage Road terminates at an entrance of the project site, this entrance is not currently used. The project area also includes the Seaport Boulevard corridor, a portion of the waterfront park, the western public parking lot and existing maintenance building site, the relocated maintenance building site, a portion of the Frontage Road, the proposed relocated railroad tracks, and established navigation lanes from the project site to the ferry terminals in the Port of San Francisco and the Port of Oakland. Within the project area and the surroundings, recreational facilities support a variety of functions, including both passive and active recreation uses, as described below.

Parklands and Open Space and Trails

An approximately 300-foot segment of the Bay Trail that would be paved under the proposed project is on the eastern side of the project site. This trail connects into the Pacific Shores Marina section of the Bay Trail, which then connects into the Westpoint Harbor Bay Trail segment. The Pacific Shores Marina segment is 1.89 miles long and is paved. Common activities include bicycling, birding, and walking.[9,10]

The waterfront park is to the east of the project site and extends along the length of Westpoint Slough from the project site to Northpoint Court and the Westpoint Harbor Marina. The waterfront park includes a segment of the Bay Trail and three circular concrete plazas with seating areas near the water's edge. The park generally consists of landscaped vegetation, trees, and turf grass. The waterfront park is private property owned by the Pacific Shores Center. As set forth in the development agreement with the City, it is generally intended for use by Pacific Shores Center occupants and for use and enjoyment by the general public.[11] The waterfront park is open for public access and passive recreational use from sunrise to sunset, although access can be restricted by Pacific Shores for scheduled events, games, or gatherings.

Public parking for the Bay Trail is on the western and eastern ends of the park and crosswalks on Seaport Boulevard provide access from Seaport Boulevard and the Pacific Shores Center. A portion of the western public parking lot would be used for the access road into the project site, including the closure of one driveway and removal of approximately five parking spaces.

Bair Island, approximately 0.33 mile to the west of the project site, is comprised of three islands, Inner, Middle, and Outer, totaling approximately 3,000 acres. Approximately 2,000 acres on the Middle and Outer islands are part of the Bair Island Ecological Reserve and the remaining portion of the islands are part of the Don Edwards National Wildlife Refuge.[12] There is a public hiking trail at Inner Bair Island with views of the bay and wildlife, including a distant view that encompasses the project area.[13] Recreational boating is allowed through the sloughs that separate the three islands. Hunting is allowed by boat in tidal

[9] Metropolitan Transportation Commission (MTC). Bay Trail Interactive Map. Available: https://mtc.ca.gov/operations/regional-trails-parks/san-francisco-bay-trail/bay-trail-interactive-map. Accessed June 2024.

[10] MTC. Map 5 – Redwood Shores to Ravenswood Slough webpage. Available: https://mtc.ca.gov/operations/regional-trails-parks/san-francisco-bay-trail/map-numbers/map-5-redwood-shores-ravenswood-slough. Accessed June 2026.

[11] City of Redwood City and Pacific Shores Center Limited Partnership. October 26, 1998. Development Agreement by and Between City of Redwood City and Pacific Shores Center Limited Partnership.

[12] California Department of Fish and Wildlife (CDFW). Bair Island Ecological Reserve webpage. Available: https://wildlife.ca.gov/Lands/Places-to-Visit/Bair-Island-ER. Accessed May 2025.

[13] Peninsula Open Space Trust (POST). Bair Island webpage. Available: https://openspacetrust.org/hike/bair-island/. Accessed April 2025.

areas of the Don Edwards San Francisco Bay National Wildlife Refuge. No land or tidal marsh access is allowed other than the trail and retrieval of downed birds by hunters.

Greco Island, approximately 0.21 mile northeast of the project site, is also a part of the Don Edwards San Francisco Bay National Wildlife Refuge. Overall, the Don Edwards San Francisco Bay National Wildlife Refuge has 30,000 acres of habitat for millions of migratory birds and endangered species.[14] As with Bair Island, hunting is allowed by boat in tidal areas. No land or tidal marsh access is allowed other than retrieval of downed birds by hunters.[15]

Redwood Creek and Westpoint Slough

Within Redwood City Creek and Westpoint Slough, maritime activities occur include sailing, rowing, fishing, and paddling. As discussed above, hunting by boat is allowed in tidal areas of the Don Edwards San Francisco Bay National Wildlife Refuge at Bair and Greco Islands. There are two marinas near the project area: the Port of Redwood City Municipal Marina, approximately 0.7 mile south of the project area, and Westpoint Harbor Marina, approximately 0.4 mile east of the project site. There are also several rowing and sailing clubs and aquatic centers located in the vicinity. A public boat launch ramp is approximately 0.6 mile south of the project site and is operated by the Port of Redwood City. A public fishing pier is also located approximately 0.6 mile to the south. Both Redwood Creek and Westpoint Slough are frequently used by local recreation users and, thus, are considered recreational facilities for purposes of this analysis. Due to their connectivity, Redwood Creek and Westpoint Slough are evaluated and discussed in this section as a single recreational facility.

Public Access

Public access opportunities to recreational facilities in the surrounding area include the Bay Trail to the east of the project site; the public fishing pier approximately 0.6 mile south of the project site; the Waterfront Promenade Open Space, which is approximately 0.6 mile south of the project site; and a trail at Inner Bair Island, which is approximately 1.65 miles southwest of the project site. There are baseball fields and a basketball court located at the Pacific Shores Center near the loop road entrance, approximately 0.23 mile south of the project site, immediately to the east of the Seaport Boulevard corridor. The playfields are owned by Pacific Shores Center and are available for prescheduled, organized youth games and practices through an operating agreement between Pacific Shores and the City's Parks, Recreation, and Community Services Department.[16] The waterways are also publicly accessible by watercraft. San Francisco Bay provides a wide variety of water-based recreation activities available to the public, including fishing and use of motorized and non-motorized watercraft. Access to water-based recreation is provided at locations such as launch ramps, beaches, fishing piers, marinas, and waterfront parks throughout the Bay. Large, deep draft vessels are confined to established navigation lanes, which they sometimes share with other vessels, boats, and smaller recreational craft.

[14] U.S. Fish and Wildlife Service. Don Edwards San Francisco Bay National Wildlife Refuge – Waterfowl Hunting Program webpage. Available: https://www.fws.gov/refuge/don-edwards-san-francisco-bay/visit-us/activities/hunting. Accessed April 2025.

[15] U.S. Fish and Wildlife Service. Don Edwards San Francisco Bay National Wildlife Refuge – Waterfowl Hunting Program webpage. Available: https://www.fws.gov/refuge/don-edwards-san-francisco-bay/visit-us/activities/hunting. Accessed April 2025.

[16] City of Redwood City and Pacific Shores Center Limited Partnership. October 26, 1998. Development Agreement by and Between City of Redwood City and Pacific Shores Center Limited Partnership.

3.13.4 Thresholds of Significance

The proposed project would result in significant impacts related to recreation if it would:

Impact 3.13-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact 3.13-2 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.13.5 Project Impacts

3.13.5.1 Impact 3.13-1

Impact 3.13-1: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

3.13.5.1.1 Construction

3.13.5.1.1.1 Ferry Terminal

Waterway Impacts

While construction of the ferry terminal would occur within the boundaries of Redwood Creek, there is no existing public access to the channel from the project site. Therefore, water-based users would be able to continue using existing access points to Redwood Creek during construction, and construction of the ferry terminal would not block existing access. While recreational watercraft would need to avoid the area where in-water construction and dredging is occurring, this would only affect a small portion of the waterway in the immediate vicinity. Prior to construction, the Port or Port's contractors would notify the USCG of the construction work. The USCG would then post a local notice for mariners about the in-water construction activities so that local water users can be aware and avoid the area. The remainder of the water channel would remain accessible for public use. As such, recreational use of Redwood Creek would continue to be available during construction activities and recreational users would not be required to use, and therefore increase the use of, existing alternative water-oriented recreational facilities. Although access to the waterway would remain available outside of active construction areas, there is the potential that construction activities would discourage some recreational users from using this resource. This could result in some users visiting alternative water-oriented recreational facilities. A variety of alternative waterways are available in the area, including other segments of the Redwood Creek. Thus, use of alternative facilities would be dispersed throughout the area and not concentrated in any specific location, such that substantial physical deterioration or degradation could be caused or accelerated.

Dredging and in-water construction of the ferry terminal would temporarily increase vessel traffic to and from the project site and would involve the presence of barge-mounted construction equipment in the construction area. Vessels used for in-water construction would vary in quantity and duration of work depending on the stage of construction. For instance, construction assumptions (see Appendix B, Air Quality, Greenhouse Gases, Energy Calculations, and Health Risk Assessment, of this Draft EIR) are that dredging activities would only occur for 11 days and would mobilize six vessels, including one crew boat, one survey boat, two tugboats, and two marine construction crafts. Other in-water construction activities

for the ferry terminal would range in duration from one to five days and utilize from two to four separate vessels. However, construction of the ferry terminal would not increase usership of the greater Redwood Creek area outside of the immediate project boundaries and would not affect overall recreational use of the creek. As discussed above, aside from the immediate construction area, the remainder of the water channel would remain accessible for public use, and recreational users would not be required to use, and therefore increase the use of, existing alternative water-oriented recreational facilities. The impact would be less than significant.

Bay Trail Impacts

Construction of the ferry terminal improvements includes the paving of approximately 300 feet of unpaved trail within the waterfront park and connecting it to the existing paved Bay Trail to the east and to the new segment of Bay Trail in the project site. During this construction, the unpaved trail and western terminus of the Bay Trail would be closed to the public. However, the Bay Trail outside of the construction area would remain open and construction activities would not substantially limit access or quality of the Bay Trail. In lieu of using the closed section of the Bay Trail, pedestrians would be able to travel through the waterfront park on the paved section of the Bay Trail to the east of the closed section. As such, recreational use of the Bay Trail would continue to be available during construction activities and recreational users would not be required to use, and therefore increase the use of, existing alternative recreational facilities. The Bay Trail would be constructed following the San Francisco Bay Trail Design Guidelines and Toolkit and would support the Redwood City General Plan Policy BC-5.2 of completing the Bay Trail through Redwood City and the San Francisco Bay Plan policy of completing segments of the trail.

Construction workers additionally have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by construction workers' use of that resource. For each independent reason discussed above, construction of the ferry terminal would not result in substantial physical deterioration of this recreational facility; the impact would be less than significant**.**

Other Park Resources Impacts

During construction of the ferry terminal, the widening of the Seaport Boulevard loop road would be designed to avoid adversely affecting use of and access to the public baseball fields and basketball court located east of Seaport Boulevard and north of the entrance to the Pacific Shores Center. Therefore, these facilities would remain available for public use and the construction of the ferry terminal would not result in overuse of alternative facilities such that substantial physical deterioration or degradation could be caused or accelerated.

Additionally, the waterfront park would not be substantially impacted by the construction of the ferry terminal. During construction of the ferry terminal, 300 feet of the unpaved trail within the waterfront park would also be paved and extended. While this construction would impact the western edge of the waterfront park and trail, the remainder of the park and trail to the east would remain open. Because the trail terminates at this location, no through access would be disrupted. Similarly, during construction of the ferry terminal, a portion of the western public parking lot for the waterfront park would temporarily

be off limits. However, the eastern public parking lot would remain fully open and available, and therefore, the public would retain the opportunity to reach this segment of the Bay Trail by vehicle. Although access to waterfront park, Bay Trail, and public Bay Trail parking would remain available east of the construction area, there is the potential that construction activities would discourage some recreational users from visiting the area. This could result in some users visiting alternative recreational facilities. A variety of alternative recreational facilities are in the area, including other segments of the Bay Trail, hiking trails, and the Waterfront Promenade. Thus, use of alternative facilities would be dispersed throughout the area and not concentrated in any specific location such that substantial physical deterioration or degradation could be caused or accelerated. Construction workers have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by construction workers.

Therefore, the construction of the ferry terminal would not have a substantial adverse impact on nearby parks and would not result in substantial physical deterioration of existing similar recreational facilities outside the project area.

Summary of Impacts

As discussed above, construction of the ferry terminal would not increase the use of Westpoint Slough and Redwood Creek, the Bay Trail, or surrounding parks and other recreational amenities such that physical deterioration of these resources would occur or be accelerated. The impact would be less than significant.

3.13.5.1.1.2 Visitor-Serving Uses

Waterways Impacts

During construction of the visitor-serving uses, the Shell Unloading Dock would be removed. While this would occur within the boundaries of Westpoint Slough, there is no existing public access to the Shell Unloading Dock. Water-based users would be able to continue using existing access points to Westpoint Slough during construction, and construction of the visitor-serving uses would not block existing access. While recreational watercraft would need to avoid the area where in-water work is occurring, this would only affect a small portion of the waterway in the immediate vicinity. The remainder of the water channel would remain accessible for public use. As such, recreational use of Westpoint Slough would continue to be available during construction activities and recreational users would not be required to use, and therefore increase the use of, existing alternative water-oriented recreational facilities; the impact would be less than significant.

Bay Trail Impacts

Construction of the visitor-serving uses would not have a substantial adverse impact on the Bay Trail, because the construction would be contained within the project site and would not extend into the surrounding area. Construction of the visitor-serving uses could close a portion of the Bay Trail along the northern edge of the project site if within the limits of construction. While this closure could remain in effect over the 24-month construction period for the visitor-serving uses, it would not cause a permanent impact and the Bay Trail outside the limits of construction (within the waterfront park and at the ferry

terminal) would remain open and available to the public. Further, the sidewalk and bicycle trail along the southern edge of the project site would maintain connectivity between the Bay Trail segments in the waterfront park and the ferry terminal. Construction workers have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by construction workers. For each independent reason discussed above, construction of the visitor-serving uses would not result in substantial physical deterioration of this recreational facility; the impact would be less than significant.

Other Park Resources Impacts

Similar to the construction of the ferry terminal, the surrounding parks in the area would not be impacted by the construction of the visitor-serving uses. Construction activities would be confined to the project site and would not include any existing landside parks or open space. If some recreational users do choose to visit alternative recreational facilities to avoid the construction activities, use of alternative facilities is expected to be dispersed throughout the area and not concentrated in any specific location such that substantial physical deterioration or degradation could be caused or accelerated.

Therefore, the construction of the visitor-serving uses would not have a substantial adverse impact on nearby parks and would not result in a substantial increase in use of existing similar recreational facilities outside the project area such that substantial physical deterioration could occur. Construction workers have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Construction of the visitor-serving uses would not result in substantial physical deterioration of the park resources; the impact would be less than significant.

Summary of Impacts

As described above, construction of the visitor-serving uses would not increase the use of existing neighborhood and regional parks or other recreational facilities such that a substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

3.13.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, construction of the ferry terminal and visitor-serving uses would not result in a substantial increase in the use of parks and other recreational facilities within the project area and surroundings. As such, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

3.13.5.1.2 Operation

3.13.5.1.2.1 Ferry Terminal

Waterway Impacts

The proposed ferry operations would increase motorized vessel activity within Redwood Creek and would bring new visitors to the project area. Based on ridership estimates outlined in Section 3.14, Transportation, the majority of people taking the ferry would be from the surrounding area. Due to the

nature of the ferry terminal being primarily a commuting facility, the majority of ferry terminal users are not expected to use the surrounding Redwood Creek and Westpoint Slough, Bay Trail, or nearby parks. If the ferry terminal users use these surrounding amenities, it would typically be incidental use before or after their ferry commute and for a short period of time depending on daylight and weather conditions. This incidental usage would not result in use or activities that would result in substantial physical deterioration of nearby recreational facilities.

Moreover, per ferry ridership estimates discussed in more detail in Section 3.14, Transportation, approximately 65 percent of the people using the ferry terminal would be from the surrounding area and have existing access to these amenities. Approximately 35 percent would be coming from San Francisco or Oakland, including workers coming to their place of employment in Redwood City who also already have access to these facilities during their workday. Therefore, usership of this area by people who would use the ferry terminal would not substantially increase the use of existing recreational facilities including Redwood Creek, Westpoint Slough, the Bay Trail, and nearby parks such that substantial physical deterioration of the facility would occur or be accelerated.

The increased activity caused by the proposed ferry operations would periodically affect the recreational aspects of Redwood Creek and Westpoint Slough by increasing vessel traffic in Redwood Creek when arriving or departing from the project site during the AM and PM peak hour travel times, thereby producing momentary vessel wakes at specific times in the day. Vessel wake is wave energy created by the passage of a vessel through water. There is existing water movement in Redwood Creek associated with waves driven by wind, currents, and tidal flux, as well as wake generated by existing vessels. If the wakes produced by the ferries would substantially increase the frequency or size of the waves within the channel, they could have a deteriorating effect on the recreational uses by disrupting use of small recreational motorized and non-motorized watercraft. Additionally, wakes could cause erosion of Bair Island and Greco Island, which would cause a deteriorating effect on the Ecological Reserve and National Wildlife Refuge. A wake analysis was conducted by COWI North America in February 2025, as described in greater detail in Section 3.9, Hydrology and Water Quality, and is included as Appendix G of this Draft EIR. As described in Chapter 2, Project Description, and Section 3.9, ferry vessels would reduce their speed from 35 knots within the Bay and then slow to seven knots when the ferry is offshore of Bair Island's northeastern point, prior to entering the channel.[17] This would greatly reduce the amount of wake wash that is generated. The wake analysis determined that ship wake waves are mainly dependent on vessel speeds and directionality, and at the slower speed of seven knots, there would be minimal wake effect within Redwood Creek. Because there would be minimal wake produced, and wake production would only occur when vessels arrive or depart from the project site periodically throughout the day, there would not be a substantial change in water conditions in Redwood Creek and water recreational users would not be significantly affected. Further, the wake analysis concluded that with the proposed vessel speeds, no substantial shoreline erosion and profile changes would occur.

Redwood Creek is already used by a variety of water vessels, including small watercraft such as rowers, recreational boaters, and deep draft vessels. The ferry boat operations, as with all watercraft, would be required to adhere to State and local boating safety regulations, including speed restrictions identified in

[17] The transition point at Redwood Creek Lights 5 and 6 would be where inbound vessels slow in speed from 35 knots to 7 knots and outbound vessels would increase in speed from 7 knots to 35 knots as identified in Chapter 2, Project Description.

the Harbors and Navigation Code, Redwood City Municipal Code, and other navigational rules. By adhering to boating safety regulations, the addition of ferries near the harbor entrance would not disrupt use of the waterway by recreational users. Additionally, while the San Francisco Bay is used by many recreationalists, ferries and other large vessels are also common users of the Bay. Larger vessels such as ferries are confined to existing navigation channels and subject to USCG rules for navigation. Although access to the waterway would remain available outside of the immediate project vicinity, there is the potential that operation of the ferry terminal would discourage some recreational users from using this resource. This could result in some users visiting alternative water-oriented recreational facilities. However, as previously mentioned, ferry vessel activity in Redwood Creek would be at scheduled times during the day and would not constitute a continuous disturbance or permanent obstruction to this recreational resource. The ferries would be traveling in existing navigational channels and would not adversely affect the recreational users in the San Francisco Bay.

As described above, the operation of the ferry terminal would not have a substantial adverse impact on Redwood Creek and Westpoint Slough as a recreational facility, and recreational users would not be required to use, and therefore increase the use of, existing alternative water-oriented recreational facilities outside the project area. Additionally, the operation of the ferry terminal would provide access to water-based recreation opportunities in San Francisco Bay and along bayfront lands, which aligns with the Redwood City General Plan Policy BC-5.6. Furthermore, the ferries would use the existing navigational channels and then make a direct approach to the float from the navigation channel in Redwood Creek. When departing, the ferry vessel would reverse into the navigation channel in the immediate vicinity of the ferry float. The ferry would not perform turning maneuvers in the turning basin used by deep-draft vessels calling at the Port's wharves. There would be limited time that ferry vessels are operating within the main Redwood Creek channel, which would reduce potential encounters with recreational watercraft. Additionally, ferries would be required to adhere to State and local boating safety regulations to avoid any conflicts with recreational boaters. The proposed project would not increase the use of waterways such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

Bay Trail Impacts

The Bay Trail would be extended into the project site and connect with the ferry terminal, which is approximately 1,000 feet of new trail and plus 300 feet of currently unpaved trail that would be paved. A new Class I bicycle trail and ADA-compliant sidewalk would be installed along the western leg of the loop road between the Pacific Shores Center entrance and the ferry terminal access road. This would provide additional non-motorized vehicle connectivity to the trail. However, there is existing on-street connectivity via a segment of the Bay Trail along the eastern edge of the Pacific Shores Center. Given that there is already off-street connectivity to the Bay Trail and the trail extension would be less than 1,500 feet, the project improvements would not notably increase the number of Bay Trail users such that substantial physical deterioration of the facility would occur or be accelerated.

While some ferry terminal users would utilize the Bay Trail for connectivity or recreational purposes, the ferry terminal would primarily be used by commuters and other non-recreational purposes. Some of these patrons would walk or use non-motorized vehicles on the trail. As shown in Appendix H, Transportation Study Report, the ferry terminal would generate an average of 40 patrons traveling by foot and 44 patrons traveling by bicycle during the full service weekday, this would result in a total of 84 potential new users

of the Bay Trail daily. This increase in usership would not be substantially more than existing levels such that substantial physical deterioration of the Bay Trail would occur or be accelerated. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by operation of the ferry terminal. The impact would be less than significant.

Other Park Resources Impacts

The Bay Plan identifies that ferry terminals can be located in waterfront parks and marinas if properly located, improved, and managed (see **Section 3.13.3.1.3**). While not within a park or a marina, the proposed ferry terminal is located adjacent to the waterfront park. There are no ramps or other water access from the waterfront park and the entrance to the ferry terminal facility would be separate from the public parking for the waterfront park. Therefore, there would be no adverse effects on access to and use of the waterfront park that would change the patterns of recreational uses such that substantial physical deterioration of recreational resources would occur or be accelerated. Similarly, the ferry terminal is just under one mile from several marinas; the ferry terminal would not hinder water or land access to the marinas and access and use of those facilities would not change.

The surrounding parks in the area would not be impacted by the operation of the ferry terminal. The operation of the ferry terminal would occur within the project site, which does not include any existing parks or open space. Per ferry ridership estimates discussed in more detail in Section 3.14, Transportation, approximately 65 percent of the people using the ferry terminal would be from the surrounding area and have existing access to these amenities. Approximately 35 percent would be coming from San Francisco or Oakland, including workers coming to their place of employment in Redwood City who also already have access to these facilities during their workday. Ferry terminal users would not substantially increase the use of local recreational resources because they would primarily be using the ferry for commuting purposes and many of the riders are already from the local area that already have access to the local recreational resources. Usership of local parks and other recreational facilities would not be substantially more than existing levels such that substantial physical deterioration of the Bay Trail would occur or be accelerated. The impact would be less than significant.

Summary of Impacts

The operation of the ferry terminal would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

3.13.5.1.2.2 Visitor-Serving Uses

Waterway Impacts

The visitor-serving uses would increase the number of daily and annual visitors and level of activity at the project site, and patrons of the visitor-serving uses may recreate in Westpoint Slough and Redwood Creek as part of their visit to the local area; however, the visitor-serving uses are not oriented specifically for water-related recreation, such as kayaking or boating. Future patrons of the visitor-serving uses could participate in water-related recreational activities, thus marginally increasing usership of these areas beyond existing levels; however, increases in usership of Westpoint Slough and Redwood Creek as a result of operation of the visitor-serving uses would consist of activities that are already occurring in these areas

and would not result in substantial physical deterioration of the facility. The impact would be less than significant.

Bay Trail Impacts

The visitor-serving uses would increase the number of daily and annual visitors and level of activity at the project site, and patrons of the visitor-serving uses are expected to use the Bay Trail; however, motorized vehicles are not allowed on the Bay Trail and future patrons of the visitor-serving uses would be pedestrians or bicyclists when using the Bay Trail. The proposed hotel would include up to 200 rooms and would attract new visitors beyond existing levels; however, not all patrons of the visitor-serving uses would use the Bay Trail and those who do would be pedestrian or non-motorized vehicle (e.g., bicycle) users of the Bay Trail, which the Bay Trail is specifically designed to accommodate. Assuming a conservative (worst-case) assumption of full occupancy of 200 rooms with an average occupancy of two guests, if all guests were to use the Bay Trail daily, this would be an increase of 400 trail users per day. Most users would be pedestrians (as most hotel guests would not have bicycles or other non-motorized vehicles readily accessible) and the use would be spread throughout the day. This type of usage would be low intensity and would not cause trail damage or otherwise result in or accelerate a substantial physical deterioration of the facility. Paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by operation of the visitor-serving uses. Employees at the visitor-serving uses may also use the Bay Trail during breaks or before or after work shifts. However, because the visitor-serving uses would include a maximum of a hotel of up to 200 rooms, 10,000 square feet of office space, and 20,000 square feet of restaurant space, which have a much lower employment base than the office buildings existing within the Pacific Shores Center where existing employes have access to the Bay Trail, new employees added by the visitor-serving uses would not result in a substantial physical deterioration. The impact would be less than significant.

Other Park Resources Impacts

The surrounding parks in the area would not be impacted by the operation of the visitor-serving uses. The operation of the visitor-serving uses would occur within the project site, which does not include any existing parks or open space. Because the project site is adjacent to the Bay Trail within the waterfront park, this park would be utilized by patrons of the project and would experience an increase in usership. However, the primary public feature of the park is the Bay Trail and plazas and seating along the Bay Trail, and as described above for the Bay Trail, use of the trail by users of the visitor-serving uses would not be such that substantial physical deterioration of the facility would occur or be accelerated.

In addition, the project site is not connected or otherwise adjoined to other neighborhood parks or other nearby recreational spaces that could experience a substantial increase in usership as a result of the visitor-serving uses operation. Future patrons of the visitor-serving uses may use other neighborhood parks in the surrounding area; however, future visitors that travel to surrounding parks would be disbursed throughout the area and would not result in a substantial increase in park usership at any one park such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

Summary of Impacts

The operation of the visitor-serving uses would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

3.13.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As discussed above, operation of the ferry terminal and visitor-serving uses would not result in a substantial increase in the use of parks and other recreational facilities within the project area and surroundings. As such, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The impact would be less than significant.

3.13.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.13.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.13.5.2 Impact 3.13-2

Impact 3.13-2: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

3.13.5.2.1 Construction

3.13.5.2.1.1 Ferry Terminal

Construction of the ferry terminal would include extending the Bay Trail by approximately 1,000 feet along the water at the northern edge of the project site and the paving of approximately 300 feet of unpaved trail. The trail would connect to the ferry terminal and would also connect to the other pedestrian and bicycle access improvements that are part of the proposed project, including a sidewalk and Class I bicycle trail along the western leg of the Seaport Boulevard loop road which would then connect to the existing roadway and trail network. Construction of the Bay Trail and Class I bicycle trail and sidewalk connections has been evaluated as part of the proposed project in context with other physical effects on the environment in applicable sections of this Draft EIR (in particular, see Sections 3.2, Air Quality; 3.9, Hydrology and Water Quality; and 3.14, Transportation). Policies, regulations, and mitigation measures (i.e., Mitigation Measure MM AQ-1), identified in those sections and other Draft EIR sections would also apply to the construction of the Bay Trail and further reduce impacts related to adverse physical effects on the environment. The impact would be less than significant. Additionally, the design of the Bay Trail would conform to the San Francisco Trail Design Guidelines and Toolkit and it would be consistent with the applicable San Francisco Bay Plan policies for Recreation and Public Access, including completing a segment of the Bay Trail and creating public access to the Bay (see **Section 3.13.3.1.3**). Although not proposed as part of the Bay Trail, the proposed Class I bicycle trail and ADA-compliant sidewalk along the southern boundary of the site and the eastern edge of the Seaport Boulevard Corridor would conform to Bay Trail standards. It would complete a loop around the Pacific Shores Center by providing connectivity along the western leg of the loop road from the existing Bay Trail at the entrance to the Pacific Shores Center to the Bay Trail extension at the project site. As described under Impact 3.13-1 in **Section**

3.13.5.1.1, construction workers have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by construction workers. Thus, there would be no need for additional construction or expansion of recreational facilities. Therefore, the proposed project would not include recreational facilities that are not already evaluated as part of the proposed project, and it would not require the construction or expansion of other recreational facilities which might have an adverse physical effect on the environment; the impact would be less than significant.

3.13.5.2.1.2 Visitor-Serving Uses

The visitor-serving uses do not include the construction of recreational facilities. As described under Impact 3.13-1 in **Section 3.13.5.1.1**, construction workers have limited opportunities to use nearby recreational facilities due to limited free time during the work day, which is typically utilized for consuming meals; therefore, construction workers are unlikely to utilize recreational facilities. Furthermore, paved surfaces and trails are not typically subject to physical deterioration from increased usage; rather, paved surfaces are typically deteriorated by tree roots and natural phenomena which would not be affected by construction workers. The impact would be less than significant.

3.13.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project includes the expansion of the Bay Trail and construction of a bicycle trail which has been evaluated as part of the proposed project in context with other physical effects on the environment in applicable sections of this Draft EIR. Any policies, regulations, and mitigation measures (if applicable), identified in those sections and other Draft EIR sections would also apply to this construction. Also, construction of the proposed project would not create additional demands for recreational facilities that would require the construction of any other new recreational facilities or expansion of existing recreational facilities not otherwise evaluated under the proposed project. Therefore, the proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The impact would be less than significant.

3.13.5.2.2 Operation

3.13.5.2.2.1 Ferry Terminal

As described in **Section 3.13.5.2.1.1** above, implementation of the ferry terminal portion of the project includes a Bay Trail segment and Class I bicycle trail, which supports project objectives, the Bay Plan's applicable Recreation and Public Access policies, and General Plan Policy BC-5.6 to encourage the provision of access to water-based recreation opportunities in San Francisco Bay and along bayfront lands to enhance public access along the waterfront and the promotion of shoreline uses. These new and expanded recreational facilities have been evaluated as part of the proposed project in context with other physical effects on the environment.

Additionally, as described under Impact 3.13-1 in **Section 3.13.5.1.2**, operation of the ferry terminal would not create additional demands for recreational facilities that would require the construction of new recreational facilities or expansion of existing recreational facilities.

In summary, operation of the ferry terminal would not include recreational facilities that are not already evaluated as part of the proposed project or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The impact would be less than significant.

3.13.5.2.2.2 Visitor-Serving Uses

The visitor-serving uses do not include the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Moreover, as described under Impact 3.13-1 in **Section 3.13.5.1.2**, operation of visitor-serving uses would not create additional demands for recreational facilities that would require the construction of new recreational facilities or expansion of existing recreational facilities. The operation of the visitor-serving uses would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The impact would be less than significant.

3.13.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project includes the expansion of the Bay Trail and a new Class I bicycle trail which has been evaluated as part of the proposed project in context with other physical effects on the environment in applicable sections of this Draft EIR. Any policies, regulations, and mitigation measures (if applicable), identified in those sections and other Draft EIR sections would also apply to this operation. Also, operation of the proposed project would not create additional demands for recreational facilities that would require the construction of any other new recreational facilities or expansion of existing recreational facilities not otherwise evaluated under the proposed project. Therefore, the proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. The impact would be less than significant.

3.13.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.13.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.13.5.3 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic context for assessing cumulative environmental impacts associated with the accelerated deterioration of existing regional parks or recreational facilities is the extent of the City's jurisdictional boundaries. Cumulative impacts could occur if growth within the City causes an increased use of existing facilities such that substantial physical deterioration of those facilities would occur. Association of Bay Area Governments (ABAG) growth projections used as the basis of the cumulative impacts analysis in this

Draft EIR take into consideration the future growth anticipated in the Redwood City General Plan. The Building Community Element of the Redwood City General Plan provides an inventory of existing recreation and park facilities within the City, and identifies a goal of providing 3.0 acres of active and passive park space per 1,000 residents and includes policies for increasing park space as the City grows, including collecting development fees for acquisition and improvements of parks and community facilities, guidelines for non-residential development projects to include public spaces, and including funding for community facility improvements in the City's Capital Improvement Program. It also includes a goal to implement programs identified in the Redwood City Parks and Facilities Needs Assessment that was completed in 2008 which acknowledges the future growth anticipated to occur within the City through the year 2020 and identifies the recreation and parks facilities improvements that would be needed to accommodate that future growth, including proposed trails and improvements to water-borne activity access. Based on such acknowledgement of, and planning for, future growth within Redwood City, and the attendant recreation and park needs, significant cumulative impacts related to substantial physical deterioration of recreational facilities are not expected to occur. Additionally, implementation of the proposed project does not involve the construction of housing units and therefore would not result in permanent population growth. Finally, by paving and connecting the Bay Trail and opening the project site to the public, the proposed project would enhance the quality of recreational opportunities available at the project site. The adopted growth projections and proposed project together would not result in substantial physical deterioration or the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, the forecasted regional growth and land use changes coupled with the proposed project would result in a less than significant cumulative impact related to recreation. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.13.5.3.1 Mitigation Measures

No mitigation is required.

3.13.5.3.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to recreation would be less than significant.

3.13.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts related to recreation associated with construction and operation of the proposed project.

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Section 3.14
Transportation

3.14.1 Introduction

This section describes the regulatory framework and existing conditions in the project area related to transportation, and identifies the potential impacts from implementation of the proposed project. The analysis is based on the results of the transportation study for the proposed project prepared by CDM Smith in June 2026 (Appendix H of this Draft EIR).

This section analyzes the proposed project's construction and operation impacts associated with transportation, including the potential for the proposed project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. In addition, the proposed project was evaluated for whether or not it would conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b), which specifies a transportation impact analysis using the metric "vehicle miles traveled" (VMT).[1] This section also evaluates if the proposed project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Finally, this section analyzes the potential of the proposed project to result in inadequate emergency access. The general approach and methodology, regulatory setting, environmental setting, and the thresholds of significance used to evaluate the proposed project's effects related to transportation are also described. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.14.2 Methodology

A transportation study for the proposed project (Appendix H of this Draft EIR) was prepared to assess potential impacts relative to the CEQA thresholds of significance for transportation identified in **Section 3.14.4**. CEQA, Senate Bill 743 (Stats. 2013, ch. 386) (SB 743) changes to CEQA, and SB 743 related requirements incorporated in the transportation/traffic impact study guidelines of Redwood City, the City/County Association of Governments of San Mateo County (C/CAG), and the California Department of Transportation (Caltrans) together form the basis of the transportation impact analysis.[2]

[1] As further discussed in Appendix H of this Draft EIR and Sections 3.14.2 and 3.14.3.1 below, Senate Bill (SB) 743 implemented Statewide CEQA Guidelines changes, including eliminating traffic congestion and automobile delay, expressed in terms of "level-of-service" (LOS), as metrics for determining significant transportation impacts (Pub. Res. Code § 21099(b)(1); CEQA Guidelines Section 15064.3(a)). CEQA Guidelines Section 15064.3(b) implements SB 743 and sets forth guidelines for determining the significance of automobile transportation impacts. SB 743 required the Governor's Office of Land Use and Climate Innovation (LCI) (formerly the Governor's Office of Planning and Research [OPR]) to establish new metrics for determining the significance of automobile transportation impacts of projects. LCI selected VMT as the preferred transportation impact metric and applied their discretion to require its use Statewide.

[2] The Transportation Study Report (Appendix H) includes an analysis of transportation elements that meet non-CEQA regional and local transportation impact analyses requirements, but are not metrics for determining significance of automobile transportation impacts under CEQA. Specifically, intersection level-of-service (LOS) and segment volume-to-capacity ratio-based LOS analysis are evaluated in the report; changes to intersection and roadway segment volume-to-capacity ratio-based LOS are not considered in this CEQA evaluation.

The transportation impact analysis for this EIR analyzes the following four scenarios: existing (2023) conditions,[3] cumulative (2040) no project conditions,[4] existing (2023) plus project conditions, and cumulative (2040) project conditions. The year 2023 is used for baseline conditions analysis and the year 2040 for cumulative conditions analysis consistent with the City's 2023 Transportation Impact Fee Study.[5] The transportation impact analysis uses Redwood City, San Mateo County, and San Francisco Bay Area boundaries approximated to their associated transportation analysis zones (TAZs) boundaries in the 2023 Redwood City updated version of C/CAG's Travel Demand Model (TDM) as the geographical areas for VMT analysis. For the purpose of this analysis, TAZs have been used to better reflect trips to and from the future ferry terminal since the impact of a future ferry terminal would extend beyond Redwood City boundaries and may attract users from nearby areas. The City, County, and regional TAZ boundaries do not align perfectly with the geographic boundaries. See Appendix H for more detailed data and methodologies.

3.14.2.1 Transportation Analysis Assumptions

The analysis considered the planned reconfiguration of the US 101/SR 84 (Woodside Road) interchange under future conditions as shown in **Figure 3.14-1**. The proposed project's new all-way stop controlled (AWSC) intersection at the proposed project entrance road and the Seaport Boulevard loop road is assumed under the existing (2023) plus proposed project and cumulative (2040) project conditions.

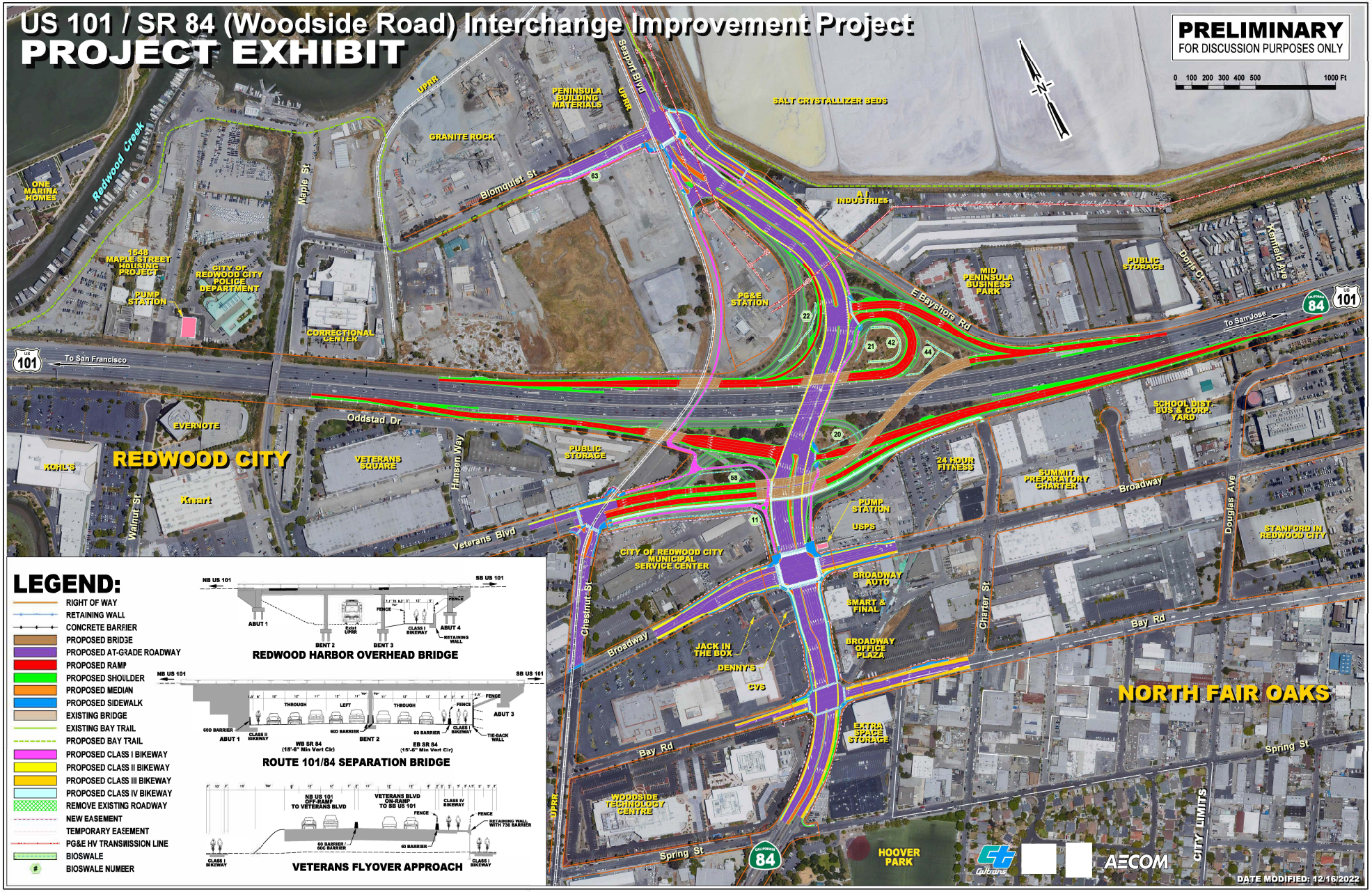
3.14.2.2 Background Vehicle Trips Estimation

Under the no project conditions, the proposed project site would remain vacant, such that no trips are generated. Existing (2023) vehicle trips generated by existing background land uses and operating on existing transportation facilities in the project area were estimated using 2017-2024 weekday peak period turning movement counts (TMCs), a segment count, Caltrans' US 101 freeway mainline traffic data, and traffic update to 2023 conditions and volume balancing methodologies. These vehicle trips are also assumed to represent the baseline (2023) conditions.

[3] The transportation study for this EIR established the existing (2023) conditions by combining the latest available traffic counts in the project vicinity that are taken over 2017-2024, ferry trip generation analysis in 2019, visitor-serving uses trip generation analysis in 2024, and a targeted set of socioeconomic and land use development adjustments to bring all data prior to 2023 to 2023 conditions. The transportation study did not adjust the data belonging to 2023 or later. For these reasons, in the context of the transportation analysis, "existing (2023)" conditions is equivalent to "baseline (2023) no project" conditions, and "existing (2023) plus project" conditions is equivalent to "baseline (2023) project" conditions.

[4] The transportation study for this EIR established the cumulative (2040) no project conditions primarily based on the existing (2023) conditions and traffic growth rates seen between the base year (2023) and forecast year (2040) in the C/CAG travel demand model update made by Redwood City for the Redwood City Transportation Impact Fee Study published in December 2023. The transportation study further added the impact of the US 101 / SR 84 interchange improvement project related roadway reconfigurations (currently under implementation but not coded in the 2023 version of C/CAG model) on the traffic flow patterns.

[5] City of Redwood City. December 2023 (update). Redwood City Transportation Impact Fee Study. Prepared by Economic & Planning Systems, Inc. and Hexagon Transportation Consultants, Inc. Available: https://www.redwoodcity.org/home/showpublisheddocument/27445/638388322844730000.



Source: City of Redwood City and Caltrans. December 9, 2015. US 101/SR 84 (Woodside Road) Interchange Improvement Project, Revised Final Traffic Operations Analysis Report. Available: https://www.redwoodcity.org/home/showpublisheddocument/25747/638041021964800000; City of Redwood City. 2025. SR84 – US101 Interchange Reimagined webpage, Project Overview. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/transportation-parking/101-woodside-interchange#Project%20Overview. Accessed June 20, 2025.

Figure 3.14-1

US 101 / SR 84 INTERCHANGE IMPROVEMENT PROJECT RELATED CONFIGURATION

Cumulative (2040) no project vehicle trips generated by existing and planned background land uses and existing and planned transportation facilities in the project area were estimated using the existing (2023) vehicle trip estimates, application of C/CAG TDM traffic growth factors, and a vehicle trip re-assignment analysis to account for the future US 101/SR 84 (Woodside Road) Interchange reconfiguration.

The background traffic estimation concluded with per capita VMT calculation at set geographical levels of Redwood City, San Mateo County, and the San Francisco Bay Area region. The transportation analysis performed this calculation by dividing C/CAG TDM daily VMT in existing (2023) and cumulative conditions (2040) by service population for Redwood City TAZs and San Mateo County TAZs. Direct data was used for the San Francisco Bay Area region based on a C/CAG publication.[6]

The methodologies used in the background vehicle trip estimation include the following and are explained in more detail in the Transportation Study Report (Appendix H): (a) intersection TMCs update, (b) intersections volume balancing, (c) existing segment volume estimation, (d) traffic forecasting, and (e) background per capita VMT calculation.

3.14.2.3 Proposed Project Trips and Travel Volume Estimation

The transportation study report estimated proposed project trips and travel volume associated with the ferry terminal elements of the proposed project (ferry terminal, ferry service, and access improvements, referred to herein as the "ferry terminal component") and all proposed project elements (ferry terminal, ferry service, access improvements, and visitor-serving uses), referred to herein as the "full project," which are described in detail in Chapter 2, Project Description, of this Draft EIR.

Based on assumptions for ferry operations and maximum build-out of the visitor-serving uses, project trips and travel volume were estimated using a four-step travel demand modeling process: trip generation,[7] mode splits,[8] trip distribution,[9] and trip assignment.[10] The trip generation and mode split steps considered all modes (auto, transit, bike, pedestrian, and other unknown), the trip distribution and traffic assignment steps only considered motorized (auto and transit) travel modes.

The methodologies used in the proposed project trips and travel volume estimation are summarized below and explained in more detail in the Transportation Study Report (Appendix H).

[6] City/County Association of Governments of San Mateo County (C/CAG). September 2021. SB 743 Implementation Decisions, Table 5: Total Project Generated VMT – San Mateo County and Bay Area Region. Available: https://ccag.ca.gov/wp-content/uploads/2021/11/1_20210929_CCAG_SB_743_Implementation_Decisions_Cln.pdf.

[7] Trip generation step determines the total number of trips produced and attracted by the proposed project considering socioeconomic factors and land uses.

[8] Mode splits step determines the mode of transportation (e.g., drive alone, carpool, transit, taxi, walk, bike, etc.) that travelers would use for each trip.

[9] Trip distribution step determines how trips generated by the proposed project are likely to be distributed among TAZs.

[10] Trip assignment step determines the routes that travelers would take between their origin and destination.

The transportation impact analysis estimated the daily total ridership and per ferry ridership by service route for this EIR in the years 2023 and 2040 as shown in **Table 3.14-1**. The ridership estimates were generated by adjusting the 2019 and 2040 ridership estimates made in the Redwood City Ferry Business Plan[11] to account for recent post-Covid-19 pandemic population trends,[12] economic trends,[13] and travel trends.[14] In addition, the ferry transit times used in the Redwood City Ferry Business Plan were increased by six minutes to account for a speed reduction to reduce ferry wake.[15] The increased travel time has lowered the ridership estimates. Attachment 5 of Appendix H contains additional details on ferry ridership and adjustments made to the 2019 and 2040 ridership estimates in the Redwood City Ferry Business Plan. The transportation analysis estimated the adjusted daily total ridership and per ferry ridership by service route in the years 2023 and 2040, shown in **Table 3.14-1**.

Table 3.14-1 Proposed Ferry Terminal Average Daily Ridership (Person Trips)

Service Route	Year 2023 Average Daily Ridership			Year 2040 Average Daily Ridership		
	Wkdy. Total (Per Ferry Trip)	Wknd. Total (Per Ferry Trip)	Special Events Total (Per Ferry Trip), {Per Event}	Wkdy. Total (Per Ferry Trip)	Wknd. Total (Per Ferry Trip)	Special Events Total (Per Ferry Trip) {Per Event}
Oakland – Redwood City	640 (107)	N/A (N/A)	N/A (N/A)	1,780 (297)	N/A (N/A)	N/A (N/A)
San Francisco – Redwood City	830 (104)	730 (73)	90 (45) {200}	1,910 (239)	1,680 (168)	210 (105) {340}

Sources: City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://www.redwoodcity.org/home/showpublisheddocument/22921/637442616488470000; Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf; Appendix H of this Draft EIR.
Key: N/A = Not Applicable, Wkdy. = Weekday, Wknd. = Weekend

[11] Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan. Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf.

[12] As per the California Department of Finance, the population estimates for San Francisco, Oakland, and Redwood City in 2023 are lower than that in 2020 by about 5 percent on average, due to net migration to other geographical regions in the U.S. California Department of Finance. 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2025, with 2020 Benchmark.

[13] As per CBRE, a global commercial real estate services firm, the office space vacancy for the San Francisco market has increased from 4.0 percent in 2019 to 35.6 percent in 2023. During this same period, the office space vacancy for the Oakland market has increased from 8.0 percent in 2019 to 20.6 percent in 2023. CBRE Research. 2024. Bay Area Office Snapshot Q4 2023. Available: https://mktgdocs.cbre.com/2299/a9cec7e2-5626-4146-81c2-d5be27c2e721-240941716.pdf.

[14] As per Bay Area Council Employer Surveys, the remote work eligible jobs commuted 4.4 days per week on average under pre-pandemic (2019) conditions; this reduced to 3.0 days per week on average by November 2023, where the remote work eligible jobs formed 51 percent, 40 percent, and 47 percent of the total jobs in San Francisco, Oakland, and Redwood City, respectively. Bay Area Council. 2024. Return to Office Survey - November 2023 and May 2021 Results. Available: https://www.bayareacouncil.org/employer-survey-results/. Accessed August 8, 2024.

[15] COWI. 2025. Port of Redwood City – Ferry Terminal Environmental Review: Ship Wake and Morphology Assessment Report (Appendix G of this Draft EIR).

The estimated motorized vehicle trips due to the proposed future visitor-serving uses are shown in **Table 3.14-2**.

3.14.2.4 VMT Analysis

As required by CEQA Guidelines Section 15064.3, the VMT analysis accounts for all trip types: end-to-end trips avoided, "first mile/last mile" trips added to/from proposed ferry terminal, "first mile/last mile" trips added to/from Oakland/San Francisco ferry terminals, and trips added by proposed visitor-serving uses.

Estimates for average trip length by trip type are shown in **Table 3.14-3**. These estimates are based on TAZ-to-TAZ distance matrices from Redwood City's updated C/CAG TDM and generalized trip length assumptions for the "first mile/last mile" trips accessing Oakland and San Francisco ferry terminal catchment areas.

For the ferry terminal component and the full project, annual project trips were estimated by applying annualization factors (approximately 261 weekdays, 104 weekend days, and 15 special event days) to weekday, weekend, and special event day average daily vehicle trips.

Institute of Transportation Engineers (ITE) trip generation rates were used to estimate annual vehicle trips associated with the hotel, office, and restaurant land uses using conversion factors for weekend and weekday daily traffic and an annualization factor of 365.

The transportation analysis computed annual VMT by trip type by multiplying the annual vehicle trips by trip type with the average trip lengths by trip type. Avoided trips result in a negative VMT change and added trips result in a positive VMT change. The transportation analysis computed the net total annual VMT due to the ferry terminal component and the full project. The transportation analysis also estimated per capita VMT by land use type (ferry terminal, hotel, office, and restaurant) by dividing net total annual VMT by net total annual person trips for each land use (see **Table 3.14-3**).

Table 3.14-2 Proposed Future Visitor-Serving Uses Project Weekday Vehicle Trips

ITE Land Use and Code	Units	Weekday daily rate (trips/unit)		Weekday AM peak hour[1] rate (trips/unit)		Weekday PM peak hour[2] rate (trips/unit)		2023						Annual Average Daily Trips (Weekday and Weekends Trips Combined)
								Weekday daily trips		Weekday AM peak hour trips		Weekday PM peak hour trips		
								Total		Total		Total		
		In %	Out %	In %	Out %	In %	Out %	In	Out	In	Out	In	Out	
Hotel (310)	200 rooms	7.99		0.46		0.59		1,600		92		118		
		50%	50%	56%	44%	51%	49%	800	800	52	40	60	58	
General Office Building (710)	10 x	10.84		1.52		1.44		110		15		14		
	1,000 SF	50%	50%	88%	12%	17%	83%	55	55	13	2	2	12	
High-Turnover (Sit-Down) Restaurant (932)	20 x	107.20		9.57		9.05		2,150		191		181		
	1,000 SF	50%	50%	55%	45%	61%	39%	1,075	1,075	105	86	110	71	
Visitor-Serving Uses [without internal capture]								**3,860**		**298**		**313**		
								1,930	**1,930**	**170**	**128**	**172**	**141**	
MXD Tool based % Internal Capture								**4.2%**		**3.6%**		**4.1%**		
Hotel (310) [with internal capture]								1,540		89		113		1,490
								770	770	50	39	58	55	
General Office Building (710) [with internal capture]								110		14		13		80
								55	55	13	1	2	11	
High-Turnover (Sit-Down) Restaurant (932) [with internal capture]								2,060		184		174		2,280
								1,030	1,030	101	83	105	69	
Visitor-Serving Uses [with internal capture]								**3,710**		**287**		**300**		**3,850**
								1,855	**1,855**	**164**	**123**	**165**	**135**	

Sources: Institute of Transportation Engineers (ITE). 2021. Trip Generation Manual 11th Edition, Daily and Peak Hour Trip Generation Rates; U.S. Environmental Protection Agency (USEPA). No Date. Mixed-Use Trip Generation Model v4 (also called the MXD Tool). Available: https://www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed August 8, 2024.

Notes:

The USEPA, in cooperation with the ITE, developed a spreadsheet tool to estimate the internal capture of trips generated by a new mixed-use development.

[1] Peak hour of adjacent street traffic, one hour between 7 and 9 AM

[2] Peak hour of adjacent street traffic, one hour between 4 and 6 PM

Key: ITE = Institute of Transportation Engineers, MXD Tool = USEPA Mixed-Use Trip Generation Model, AM = morning, PM = evening

Table 3.14-3 Average Trip Length Estimates

Trip Type	From	To	Average Trip Length (in miles/trip)	
			2023	2040
End-to-End "Drive Alone" Trips Avoided[1]	Centroid for Proposed Redwood City Ferry Terminal Catchment Area (TAZ ID: 2015)	Centroid for Oakland Ferry Terminal Catchment Area (TAZ ID: 2301)	34.66	34.78
End-to-End "Drive Alone" Trips Avoided[1]	Centroid for Proposed Redwood City Ferry Terminal Catchment Area (TAZ ID: 2015)	Centroid for San Francisco Ferry Terminal Catchment Area (TAZ ID: 1711)	25.19	26.48
"First Mile/Last Mile" trips added to/from existing ferry terminal	Home (in Oakland)	Oakland Ferry Terminal	6.25	6.25
"First Mile/Last Mile" trips added to/from existing ferry terminal	Office (in Oakland)	Oakland Ferry Terminal	3.13	3.13
"First Mile/Last Mile" trips added to/from existing ferry terminal	Home (in San Francisco)	San Francisco Ferry Terminal	6.25	6.25
"First Mile/Last Mile" trips added to/from existing ferry terminal	Office (in San Francisco)	San Francisco Ferry Terminal	3.13	3.13
"First Mile/Last Mile" trips added to/from proposed ferry terminal	Home (in Redwood City)	Proposed Redwood City Ferry Terminal (TAZ ID: 1673)	4.41	4.37
"First Mile/Last Mile" trips added to/from proposed ferry terminal	Office (in Redwood City)	Proposed Redwood City Ferry Terminal (TAZ ID: 1673)	4.52	4.74
Trips added by proposed visitor-serving uses	Service Population (in Redwood City)	Proposed Visitor-Serving Uses (TAZ ID: 1673)	7.99	7.95

Source: CDM Smith, 2024.
Note:
[1] Trips that would not happen if the proposed project is implemented.
Key: TAZ ID = Traffic Analysis Zone Identification

3.14.2.5 Circulation Plan Consistency and Safety

To address whether the proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, applicable plans, ordinances, and policies were reviewed and a qualitative assessment was performed for site circulation, parking, transit, bicycle facilities, pedestrian facilities, and safety. This assessment considered ferry users, visitor-serving users, employees, emergency vehicles, disabled individuals, bikes, pedestrians, and transit vehicles. Alternative transportation modal network assessment considered the quality of transit, pedestrian, and bicycle network access and connectivity under existing and cumulative no project conditions, and how the proposed project would improve this network access and connectivity. The circulation plan consistency assessment considered whether potential inconsistencies between the proposed project and applicable plans, ordinances, and policies addressing the circulation system would result in a substantial adverse physical impact on the environment not already analyzed in other sections of this EIR. The safety assessment considered the existing roadway network, historical data on roadway crashes in the project vicinity, and existing

emergency and evacuation plans, and then assessed how the proposed project would affect safety due to change in VMT and site design.

3.14.3 Existing Conditions

3.14.3.1 Regulatory Setting

3.14.3.1.1 Federal

Americans with Disabilities Act of 1990

Title III of the Americans with Disabilities Act (ADA), Title 42 of the United States Code, prohibits discrimination on the basis of disability in places of public accommodation (i.e., businesses and non-profit agencies that serve the public) and commercial facilities (i.e., other businesses). Part 36, Appendix A, titled "Standards for Accessible Design," establishes minimum accessibility standards for use in designing and constructing a new facility or altering an existing facility, parking spaces including access aisles serving car and van parking spaces,[16] and sidewalks. Relevant guidelines include detectable warning for pedestrians entering traffic where there is no curb and an unobstructed, 48-inch pedestrian travel way; parking space and access aisles dimensions, markings, and locations; and sidewalk width.

3.14.3.1.2 State

California Senate Bill 743

Senate Bill 743 (Stats. 2013, ch. 386) (SB 743), passed into law in 2013,[17] implements several Statewide CEQA changes that are relevant to the proposed project; specifically, it eliminated traffic congestion and automobile delay as a significant impact under CEQA (Pub. Res. Code § 21099(b)(1); CEQA Guidelines Section 15064.3(a)). SB 743 required the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of automobile transportation impacts of projects. OPR selected VMT as the preferred transportation impact metric and applied their discretion to require its use Statewide. CEQA Guidelines Section 15064.3(b) implements SB 743 and sets forth guidelines for determining the significance of automobile transportation impacts.

California Governor's Office of Planning and Research 2018 Technical Guidelines

Following the codification of SB 743 as Section 21099 of CEQA in 2013, the Governor's Office of Land Use and Climate Innovation (LCI) (formerly OPR) developed technical guidelines for the California Natural Resources Agency (CNRA) to update CEQA on the analysis of transportation impacts (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) and promote the reduction of greenhouse gas (GHG) emissions. LCI selected VMT as the most appropriate metric to evaluate a project's transportation impacts. Automobile delay (as measured by "level of service" and other similar metrics) no longer constitutes a significant impact under CEQA.

[16] U.S. Department of Justice, Civil Rights Division. No Date. Americans with Disabilities Act (ADA) - Accessible Parking Spaces webpage. Available: https://www.ada.gov/topics/parking/. Accessed August 24, 2024.

[17] California Legislative Information. 2013. SB 743 as Enrolled and Chaptered on September 27, 2013. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743.

LCI's Technical Advisory,[18] recommends that applying a per capita or per employee VMT that is 15 percent below that of existing development is a reasonable threshold. This recommended threshold is based on evidence that suggests a 15 percent reduction in VMT is an achievable reduction at the project level in a variety of settings and would help the State achieve its climate goals based on currently available information. With a VMT of approximately 15 percent lower than existing levels, a project could be considered low VMT and consistent with assumptions that achieve State climate goals.

CEQA Guidelines Section 15064.3 - Determining the Significance of Transportation Impacts

CEQA Guidelines Section 15064.3(b) that went into effect Statewide on July 1, 2020[19] implements SB 743 and LCI recommendations for determining significance of automobile transportation impacts using VMT as a metric. Under CEQA Guidelines Section 15064.3 subdivision (b),[20] the updated criteria for analyzing transportation impacts for land use and transportation projects are codified in the guidelines as follows:

- *"…*Land Use Projects: *Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.*
- Transportation Projects: *Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152…"*

Caltrans Transportation Analysis Framework and Transportation Analysis under CEQA

Consistent with the language of Section 15064.3 of the CEQA Guidelines, Caltrans developed a Transportation Analysis Framework (TAF)[21] and Transportation Analysis under CEQA (TAC)[22] to guide CEQA transportation impact analysis for projects on the State Highway System (SHS). The proposed project is not on the SHS; hence, these guidelines do not apply to the proposed project.

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[18] California Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research [OPR]). December 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. P.10. Available: https://lci.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

[19] California Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research [OPR]). No Date. SB 743 Frequently Asked Questions webpage. Available: https://opr.ca.gov/ceqa/sb-743/faq.html#:~:text=Starting%20on%20July%201%2C%202020%2C%20agencies%20analyzing%20the,a%20proposed%20project%20would%20create%20on%20California%20roads. Accessed August 30, 2024.

[20] California Code of Regulations Title 14, Division 6, Chapter 3, Article 5, Section 15064.3 - Determining the Significance of Transportation Impacts.

[21] California Department of Transportation (Caltrans). September 2020. Transportation Analysis Framework (TAF) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-taf-fnl-a11y.pdf.

[22] California Department of Transportation (Caltrans). September 2020. Transportation Analysis under CEQA (TAC) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf.

The traffic generated by the proposed project, however, would use the SHS, including US 101, SR 84 (Marsh Road), SR 84 (Woodside Road), and associated intersections and interchanges. This analysis, with coordination support from Redwood City, collected data on these SHS roadway segments and intersections from Caltrans and used them in the VMT analysis that met the regional/local requirements.

California State Transportation Agency's (CalSTA's) California Transportation Plan 2050

The Statewide transportation plan[23] found that more efficient land use alone could reduce VMT by roughly 8 percent from the 2050 baseline. When the land use strategies are combined with an increase in telework and transportation focus strategies such as higher capacity, frequency and fare free local transit, reduced last-mile deliveries, increase in high-occupancy vehicle (HOV) 3+ vehicles, road user charges, congestion pricing, etc., the benefits can reach up to a 27 percent reduction in VMT along with a non-auto mode share increase of 10 percent.

Caltrans' VMT-Focused Transportation Impact Study Guide

Caltrans developed a Transportation Impact Study Guide[24] to provide guidance to Caltrans Districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans review of a land use project or plan's transportation analysis using a VMT metric. Caltrans' reviews are founded upon their goals to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and GHG emissions.

California Manual on Uniform Traffic Control Devices

The California Manual on Uniform Traffic Control Devices (MUTCD)[25] provides uniform standards and specifications for all official traffic control devices in California. The MUTCD aims to improve safety and mobility for all travelers in California by providing guidance to transportation practitioners that strives to balance safety and convenience for drivers, pedestrians, and bicyclists. The MUTCD integrates multimodal policies for safer crossings, work zones, and intersections.

California Highway Design Manual

The California Highway Design Manual (HDM)[26] establishes uniform policies and procedures to carry out the State highway design functions of Caltrans. It provides comprehensive guidelines and standards for geometric design, traffic operations, highway safety, roadside design, environmental considerations, and structural design. The manual ensures that highway design projects meet high standards of safety, functionality, and environmental sustainability.

[23] California State Transportation Agency (CalSTA). February 2021. California Transportation Plan 2050. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf.

[24] California Department of Transportation (Caltrans). May 2020. Vehicle Miles Traveled-Focused Transportation Impact Study Guide. Available: https://dot.ca.gov/caltrans-near-me/district-4/d4-programs/d4-transplanning-local-assistance/d4-transportation-planning-community-engagement/-/media/f8573ade5689499b8bec8e27b041f397.ashx.

[25] California Department of Transportation (Caltrans). 2026. California Manual on Uniform Traffic Control Devices (MUTCD) 2026. Available: https://dot.ca.gov/programs/safety-programs/camutcd.

[26] California Department of Transportation (Caltrans). 2025. Highway Design Manual. Available: https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm.

The California Air Resources Board (CARB) 2017 Scoping Plan and 2022 Update

The 2017 Scoping Plan - Identified VMT Reductions and Relationship to State Climate Goals[27] recommended that a reduction in light-duty VMT of 16.8 percent is necessary to achieve the State's GHG reduction goals. The Final 2022 Scoping Plan Update[28] identifies strategies to meet Statewide GHG reduction goals, which include achieving a Statewide reduction of VMT of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.

California Vehicle Code

The California Vehicle Code (Section 21806) requires that upon approach of an authorized emergency vehicle with a siren and visible redlight, the driver of any other vehicle is required to yield right-of-way and immediately drive to the right-had edge or curb, clear any intersection, and stop until the authorized emergency vehicle has passed.

California Fire Code

Part 9 of the California Building Code (CBC) (Title 24, California Code of Regulations) is the California Fire Code which includes regulations applicable to transportation, in particular requirements for fire apparatus and emergency vehicle access. Chapter 5 of the California Fire Code focuses on fire service features for buildings and structures, including requirements for access roads. Appendix D of the California Fire Code outlines the requirements for fire apparatus access roads, including minimum specifications, grade and turning radius, dead ends, and access control devices. Chapter 33 Section 3310 of the California Fire Code requires approved vehicle access for firefighting to all construction sites. The City of Redwood City has adopted the California Fire Code (Ordinance No. 2519, Redwood City Municipal Code Chapter 12, Article II).

3.14.3.1.3 Regional/Local

San Francisco Bay Area Metropolitan Transportation Commission Resolutions 3434 and 4530, and Plan Bay Area 2050+

The 2005 Metropolitan Transportation Commission (MTC) Resolution 3434 (Transit-Oriented Development Policy for Regional Transit Expansion Projects)[29] and its revised 2008 version,[30] allows programming and allocation of regional funds for environmental and design related work for regional transit extension projects. These projects included WETA's ferry expansion projects, including a new Redwood City ferry terminal and service. The resolution or Transit-Oriented Development (TOD) policy encourages minimum levels of development around transit stations (including ferry terminals) along new corridors, multimodal station access, and pedestrian-, bicycle-, and ADA-friendly and universal design.

[27] California Air Resources Board (CARB). January 2019. 2017 Scoping Plan – Identified VMT Reductions and Relationship to State Climate Goals. Available: https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf.

[28] California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

[29] Metropolitan Transportation Commission (MTC). 2005. MTC Resolution 3434 - Transit-Oriented Development (TOD) Policy for Regional Transit Expansion Projects, Adopted on July 27, 2005. Available: https://mtc.ca.gov/sites/default/files/Resolution%203434%20TOD_policy.pdf.

[30] Metropolitan Transportation Commission (MTC). September 2008. Resolution No. 3434, Revised. Available: https://mtc.ca.gov/sites/default/files/documents/2024-05/RES-3434_approved.pdf.

Further, MTC's regional transportation plan, the Plan Bay Area 2050+,[31] adopted Project ID 25-T11-165, to implement new ferry service between Oakland, San Francisco, and Redwood City in the period of 2036 - 2050, including a new terminal in Redwood City.[32] Since 2023, MTC's Transportation Improvement Program (TIP) has been allocating funds to Project ID 25-T11-165.

MTC adopted a Transit-Oriented Communities (TOC) Policy[33] on September 28, 2022 (MTC Resolution 4530). The TOC Policy applies to the half-mile area around existing and planned fixed-guideway transit stops and stations (i.e., regional rail, commuter rail, light rail transit, bus rapid transit, and ferries) and under the TOC Policy, the proposed project qualifies as a Tier 4 level of transit service. Compliance with the TOC Policy is voluntary for advancing goals of Plan Bay Area 2050+ or to be eligible for some types of MTC discretionary funding. The individual policies under the TOC Policy that apply to the proposed project include vehicle parking and bicycle parking requirements for new commercial development, where a maximum of four parking spaces are allowed per 1,000 square feet, and a minimum of 1 secure bicycle parking space is required per 5,000 square feet of commercial office space.[34] It is important to note that the vehicle and bicycle parking requirements apply to different land use types; the vehicle parking requirements apply to new commercial development (e.g., office, hotel, restaurant), while the bicycle parking requirements apply to new commercial office development only.

Water Emergency Transportation Authority – 2002 Implementation and Operations Plan (IOP), 2003 Program EIR, 2016 Strategic Plan, and 2050 Service Vision and Expansion Policy

WETA's 2016 Strategic Plan[35] envisions eleven new ferry terminals, including a new terminal in Redwood City, and eight new routes by 2035. The Port of Redwood City has long been considered a potential ferry terminal site. A Redwood City – San Francisco route was identified in an IOP[36] prepared in 2002 for the expansion of ferry service in the San Francisco Bay Area and evaluated in a 2003 Program EIR.[37]

Adopted in May 2024, the WETA 2050 Service Vision and Expansion Policy[38] describes WETA's vision for the ferry system, the criteria for evaluating routes that enter the project development pipeline, and the roles, responsibilities, and financial commitments of WETA and its partners in enhancing and expanding ferry service over the next 25 years.

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[31] MTC and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[32] MTC and ABAG. March 2026. Plan Bay Area 2050+, Transportation Project List Report. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_Transportation_Project_List_Report.pdf?cb=9ba7b9c8.

[33] Metropolitan Transportation Commission (MTC). October 2024. MTC's Transit-Oriented Communities Policy - Overview. Available: https://mtc.ca.gov/sites/default/files/documents/2024-10/MTC_TOC_Policy_Overview_October_2024.pdf.

[34] Metropolitan Transportation Commission (MTC). October 2024. MTC's Transit-Oriented Communities Policy - Overview. Available: https://mtc.ca.gov/sites/default/files/documents/2024-10/MTC_TOC_Policy_Overview_October_2024.pdf.

[35] Water Emergency Transportation Authority (WETA). 2016. 2016 Strategic Plan. Available: https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2019/03/WETAStrategicPlanFinal.pdf.

[36] WETA (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[37] Water Emergency Transportation Authority (WETA) (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[38] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

Water Emergency Transportation Authority Emergency Response Mandate

WETA has a legislative mandate (California Government Code Sections 66540.4 – 66540.69) to operate and coordinate emergency water transportation when regional transportation systems are severely disrupted due to disaster or other events.[39] As identified in their Emergency Response Plan,[40] following a major disaster, WETA would assist regional, State, and federal agencies by assessing and monitoring the status of water transit resources, coordinating additional mutual aid or contracted resources, and coordinate emergency water transportation for ferry vessels, and may also assist with coordination of smaller vessels, if a specific need is requested. WETA would provide the following emergency water transportation services when requested by the California Governor's Office of Emergency Services (Cal OES) or under its own authority for response to incidents that threaten immediate safety of residents in the Bay Area:

- Movement of survivors under emergency conditions
- Transportation of first responders and disaster service workers

Port of Redwood City Ferry Terminal 2007-2022 Studies and 2020 Vision Plan

The first planning study for the terminal was completed in 2007 and the first Redwood City and WETA study of ferry service at a Port of Redwood City site was conducted in 2012.[41, 42] In 2020, the Port adopted a long-term strategic vision with the goal of strengthening the Port's impact on the region's economy and quality of life. The ferry terminal studies include the 2020 Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses, the 2022 Redwood City Ferry Business Plan,[43] and the transportation report for this EIR (Appendix H).

Port of Redwood City Emergency Preparedness

In 2017, the Federal Emergency Management Agency (FEMA) designated the Port as a Federal Staging Area during any catastrophic event for the South San Francisco Bay region. It would be activated during an emergency to move first responders, residents, and critical supplies via water when roads, bridges, and airports may be inaccessible. The Port conducts full-scale interagency emergency response and recovery drills annually to ensure a coordinated and effective response among first responders.[44]

[39] San Francisco Bay Ferry. 2026. Emergency Response webpage. Available: https://sanfranciscobayferry.com/emergency-response/. Accessed February 25, 2026.

[40] Water Emergency Transportation Authority (WETA). March 2016. San Francisco Bay Area Water Emergency Transportation Authority Emergency Response Plan. Available: https://d262kwcyxl71on.cloudfront.net/wp-content/uploads/20240910102156/WETA EmergencyResponsePlan030316.pdf.

[41] Port of Redwood City. 2007. Port of Redwood City Ferry Terminal Locational Analysis, Environmental Assessment, & Conceptual Design. Prepared by CHS Consulting Group. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18192.

[42] WETA. July 2012. Redwood City Ferry Terminal - Site Feasibility Report (Draft). Prepared by KPFF Consulting Engineers. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[43] Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan. Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf.

[44] Port of Redwood City. No Date. A Ready Port At the Forefront of Emergency Preparedness Fact Sheet. Available: https://www.redwoodcityport.com/_files/ugd/521530_0c3479d49bee4ed0804ba084a10ea813.pdf.

City/County Association of Governments of San Mateo County (C/CAG) San Mateo Countywide Transportation Plan 2040, 2023 Congestion Management Program, and 2022 Transportation Demand Management Policy Implementation Guide

C/CAG's Countywide Transportation Plan 2040[45] identifies the Redwood City Ferry Terminal Project as a regional transportation plan (RTP) project and recognizes WETA's strategic plan goals for this terminal, including its ability to provide critical emergency response.

C/CAG, as the Congestion Management Agency for San Mateo County, is required to prepare and adopt a Congestion Management Program (CMP) on a biennial basis. The purpose of the CMP is to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and promote countywide solutions. The latest version of the CMP was developed in 2023.[46] The 2023 CMP states that while VMT became the required metric for analyzing the impact of development on the transportation system on July 1, 2020 (as part of SB 743), specific guidance has not been released for incorporating VMT into the CMP and, as such, LOS is still used. The CMP identified roadway facilities (segments and intersections), LOS methodologies, and LOS standards were used in the Transportation Study Report's non-CEQA assessment (Appendix H, Section 4.1).

San Mateo County Transportation Authority (SMCTA) is responsible for planning, funding, and delivering transportation improvements that use the countywide transportation sales tax. Relevant corridor planning initiatives include the 101 Corridor Connect project, which analyzes transportation improvements within one mile of either side of the Highway 101 corridor in San Mateo County to enhance mobility for all types of transportation.[47] SMCTA has contracted with the San Mateo County Transit District (SamTrans), which operates transit services in the County, to serve as its managing agency. As a result, SMCTA and SamTrans work closely together and share administrative functions.[48]

San Mateo County's Department of Emergency Management

San Mateo County's Department of Emergency Management coordinates preparedness, response, and protection services and activities for large-scale emergencies across the County. It operates the Regional Operations Center which serves as a centralized location to facilitate a coordinated response during a major emergency or disaster.

The County's Genasys (formerly known as Zonehaven) is an evacuation system used by public safety agencies across the County, including Redwood City. This system determines the most efficient and effective evacuation route based on the type of emergency and the location. The Genasys Protect App and online mapping system is available for public use to track evacuation zones and receive direction in times of emergency.[49]

[45] City/County Association of Governments of San Mateo County (C/CAG). February 2017. San Mateo Countywide Transportation Plan 2040. Available: https://ccag.ca.gov/wp-content/uploads/2014/05/SMCTP-2040-FINAL_.pdf.
[46] City/County Association of Governments of San Mateo County (C/CAG). October 2023. 2023 San Mateo County Congestion Management Program (CMP). Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf.
[47] San Mateo County Transportation Authority (SMCTA). 2025. 101 Corridor Connect. Available: https://www.smcta.com/101CC.
[48] San Mateo County Transit District (SamTrans). 2026. Background webpage. Available: https://www.samtrans.com/background. Accessed May 13, 2026.
[49] County of San Mateo. 2025. Genasys/Zonehaven website. Available: https://www.smcgov.org/dem/genasys-zonehaven.

San Mateo County Emergency Operations Plan

The County has an Emergency Operations Plan (EOP)[50] which establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations. The EOP includes plans and procedures to help coordinate and support emergency response and recovery activities.

Redwood City 2010 General Plan, 2018 Transportation Plan (RWCmoves), 2022 Walk Bike Thrive Plan, Zoning Code, 2020 Transportation Analysis Manual, and 2018 Transportation Demand Management Program

Multiple documents and requirements from Redwood City apply to the proposed project. A summary of requirements from each document is presented below:

- **2010 General Plan:**[51] One of the four guiding principles of the General Plan is as follows:

  > "…Work to develop attractive and convenient transportation alternatives, including transportation hub and ferry system..."

  The General Plan identifies a need to encourage transit use, including promoting development of ferry service and expanding shuttle service over time to support commuters of the potential ferry service. The General Plan considered a mid-Peninsula deep-water Port location as being well suited for a potential commuter ferry terminal location. The General Plan also views the Seaport Corridor as connecting the proposed ferry with employment concentrations along Seaport Boulevard, the Port, Downtown, and Caltrain Station. The General Plan anticipates that commuters would have comparable travel times to drivers using US 101 and the ferry service would provide an environmentally sustainable and pleasant alternative to car commutes, with the added benefit of a water-based emergency evacuation route in the event of a disaster. The General Plan also identifies the need for linking bicycle facilities and local transit shuttles from the terminal to local employment centers and other destinations. The General Plan also calls for new development to provide adequate emergency vehicle access and secure evacuation routes for inhabitants.

[50] County of San Mateo. May 22, 2015. County of San Mateo Emergency Operations Plan. Available: https://hsd.smcsheriff.com/sites/default/files/downloadables/1%20-%20Emergency%20Operations%20Plan.pdf.

[51] City of Redwood City. October 11, 2010. General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/policy-initiatives/general-plan-precise-plans/general-plan.

- **2018 Transportation Plan (RWCmoves):**[52] **RWCmoves** identifies Commuter Ferry Service as a signature project. The Plan also identifies improvements on the Seaport Boulevard multi-use path and Bay Trail gap closure around the future ferry terminal for multi-modal access. The Plan provides average mode shares in 2011-2015 among Redwood City commuters, which includes 73 percent drive alone users, 10 percent carpool, 5 percent transit, 2 percent biking, 3 percent pedestrian, and 7 percent other mode users. The Plan sets a goal of reaching a non-driving mode share of over 50 percent of all trips by 2040; remaining automobile trips should be shared rides and/or zero emission trips. The Plan also supports mixed-use development in the context of the goal of providing seamless connections and improved street access and identifies a trend of shortening trip length through dense, mixed-use development. These findings support the purpose of the proposed project. The Plan provides guidelines for the conduct of VMT analysis for land use development projects. Table F-8 in Appendix F of RWCmoves, reproduced as **Table 3.14-5** in **Section 3.14.4** below, sets a threshold of 15.0 Home-based work VMT per employee for office uses, and 32.0 Total VMT per service area population for hotel/retail uses. Thresholds for other types of uses are to be determined by consultation with the City.
- **2022 Walk Bike Thrive Plan:**[53] This Plan identifies that as part of US 101/SR 84 (Woodside Road) Interchange Improvement Project, bicycle and pedestrian improvements will be constructed, which include bicycle and pedestrian undercrossing of US 101 at SR 84 (Woodside Road) path from Seaport Boulevard to Veterans Boulevard (under US 101). The Plan also includes a project to implement Seaport Boulevard path improvements. Lighting may also be needed for the bike and pedestrian undercrossing for additional safety. These projects will address concerns raised by stakeholders regarding how a traveler can get from SR 84 (Woodside Road) to Seaport Boulevard safely by bike without having to make a lengthy detour, especially when the Port is proposed to be developed as ferry commuter destination. These projects would also mostly overcome the "high stress" nature of the bicycle route along Seaport Boulevard.
- **City of Redwood City Zoning Code (Zoning Ordinance):**[54] The existing zoning classification for the project site is general industrial (GI) which would allow the ferry terminal use. The proposed project includes a proposed zone change to General Commercial (CG) which would allow development of the visitor-serving uses, as well as the ferry terminal. Section 30.5 of the Zoning Code contains parking requirements, including establishing the number of spaces per land use, size of spaces and access drives, and joint use of spaces.

[52] City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan.
[53] City of Redwood City. June 2022. RWC Walk Bike Thrive. Prepared by Fehr and Peers and Eisen Letunic. Available: https://www.redwoodcity.org/home/showpublisheddocument/25615/638016840641870000.
[54] City of Redwood City. Municipal Code. Available: https://library.municode.com/ca/redwood_city/codes/city_code.

- **2020 Transportation Analysis Manual (TAM):**[55] The TAM provides guidelines on the evaluation methods and criteria for CEQA transportation analysis, as well as non-CEQA transportation analysis, in the context of local developments. The methods and criteria cover the topics of baseline VMT, cumulative VMT, on-site circulation, pedestrian facilities, bicycle facilities, transit, safety assessment, off-site traffic operations, and intersection traffic control. More details on the VMT and other CEQA transportation analysis criteria are included in **Section 3.14.2**.

- **2018 Transportation Demand Management Program and Municipal Code Ordinance No. 2503, § 1, 1-10-22:**[56,57] Redwood City also developed a TDMt program,[58] codified as Chapter 48 of the City's Municipal Code.[59] The TDMt Program and the municipal ordinance require preparation of a Site TDMt Plan for a new commercial, office, or institutional development that is 10,000 square or more, or with ten (10) employees or more. In addition, commercial sites outside the downtown area with fifty (50) employees or more are subject to a fifty-two percent (52 percent) mode share target, while commercial sites with forty-nine (49) employees or less are not required to have a mode share target. The City's policy requires use of relevant TDMt measures to achieve mode share targets, such as bike racks, space for transit stop, well-lit pedestrian paths to any adjacent transit stop, shuttle service, shared parking among multiple uses for mixed-use sites, etc.

  The City's TDMt policies would not apply to the proposed ferry terminal project element, as the proposed ferry terminal would provide a regional transit service that would reduce auto dependence for regional travel from/to Redwood City to/from San Francisco and Oakland. Pedestrian, bicycle, and transit access improvements that would be developed concurrently with the ferry terminal project would also serve to reduce auto dependence for "first mile/last mile" access to the ferry terminal.

  For the future visitor-serving uses project element, under the maximum build-out assumption of the project site of an up to 200-room hotel, 10,000 square foot office, and 20,000 square foot restaurant, the threshold for the preparation of a Site TDMt Plan would be exceeded. However, specific developer(s) or site development plans or employment plans do not exist at the time of preparation of this Draft EIR; the precise mix of uses and square footage is unknown and would be developed during future site planning. When specific developer(s) and site development plans are identified for the project site, the developer(s) would be required, as part of the City's permitting process, to meet any applicable TDMt program and ordinance requirements. Whether a mode share target would apply to the proposed visitor-serving uses would be determined based on the total employment requirement for the proposed use during the permitting process.

[55] City of Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311184673700000.

[56] City of Redwood City. July 2018. RWCmoves, Appendix E – Redwood City Transportation Demand Management Program. Available: https://rwcmoves.com/wp-content/uploads/2018/07/RWCmoves_AppendixE_TDM-Plan_20180710_3.pdf.

[57] City of Redwood City. Municipal Code, Chapter 48: Transportation Demand Management, Codified by Ord. No. 2503, § 1, 1-10-22. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH48TRDEMA.

[58] City of Redwood City. July 2018. RWCmoves. Appendix E – Redwood City Transportation Demand Management Program. Available: https://rwcmoves.com/wp-content/uploads/2018/07/RWCmoves_AppendixE_TDM-Plan_20180710_3.pdf.

[59] City of Redwood City. Municipal Code, Chapter 48: Transportation Demand Management, Codified by Ord. No. 2503, § 1, 1-10-22. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH48TRDEMA.

Redwood City Municipal Code

Chapter 29, Streets, Sidewalks and Work in or Use of City Right of Way, of the City's Municipal Code sets forth requirements for improvements and activities occurring within the right-of-way. This includes compliance with the City of Redwood City Engineering Standards[60] and the latest edition of the California Department of Transportation Standard Plans and Specifications.[61] Article II requires that an encroachment permit must be obtained for any encroachment upon, over, or under the surface of any right-of-way. Traffic control plans must be submitted to the City prior to permit approval for any travel lane closure or encroachment of parking stalls, bike lanes, and shoulders. Other encroachment permit requirements include that alterations to the right-of-way must be authorized by the City and constructed in conformance to City-approved plans; the Police Department and Fire Department must be notified at least 48-hours in advance of any street closure shown on the approved traffic control plan; and the contractor must provide for safe movement of vehicular, bicycle, and pedestrian traffic through and around construction operations.[62]

Engineering Standards

The City's adopted Engineering Standards[63] consist of three volumes: Volume I - Standard Technical Specifications; Volume II – Standard Details; and Volume III – Design Criteria. Volume I includes traffic control requirements through and around construction operations (Section 01 5500). As required therein, contractors are required to provide safe and adequate passage for vehicular, bicycle, and pedestrian traffic through, around, and adjacent to all construction operations by use of detours, bridging, backfilling, paving, traffic barriers, or other means. The Contractor must also provide for protection of pedestrians and separation of pedestrians from construction operations. Volume II includes design standards for public and private streets, including standards for vehicle lanes, sidewalks, driveways, and other details such as drainage, lighting, and traffic control. Volume III provides design criteria that include street design, traffic signs and lighting, and driveways and off-street parking.

Redwood City General Plan Safety Element

The Redwood City General Plan Public Safety Element identifies the roadways most frequently used for evacuation. The roadways closest to the project area that are identified are Veterans Boulevard and the US 101/84 interchange to Woodside Road.[64]

[60] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

[61] California Department of Transportation. 2024. Standard Plans, Standard Specifications, and Contract Item Codes. Available: https://dot.ca.gov/programs/design/april-2025-ccs-standard-plans-and-standard-specifications.

[62] City of Redwood City Community Development Department. No Date. Encroachment Permit Application. Available: https://www.redwoodcity.org/home/showpublisheddocument/28191/638458427942630000.

[63] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

[64] City of Redwood City. October 2010. Redwood City General Plan. Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

Redwood City Emergency Operations Plan

The City's EOP[65] provides a comprehensive emergency response document for natural disasters and human-induced events. The EOP includes detailed emergency management procedures designed for prevention, preparedness, response, and recovery. The EOP is reviewed and revised annually.

San Mateo County Transportation Authority's (SMCTA's) 2025-2029 Strategic Plan

This transportation planning agency plan[66] identifies the Redwood City Ferry Terminal Project (Preliminary Engineering and Environmental Phase) as a key Measure A funded project of the past five years. The Plan has set up $26.5 million and $36.9 million of total unprogrammed funds and sales tax projections towards Ferry and Local Shuttles programs in San Mateo County over the fiscal year (FY) period of 2025-2029. These make up 2 percent and 4 percent of Measure A total funds, respectively. Measure A transit local shuttles program sponsored by SamTrans provides matching funding for operation of local shuttle services, with priority given to local services connecting Caltrain, San Francisco Bay Area Rapid Transit District (BART) and future ferry terminals such as the proposed project.

San Mateo County Transit District (SamTrans) Reimagine SamTrans

This transit agency plan[67] notes that while there is no direct SamTrans service to the Port along Seaport Boulevard, there is peripheral service through SamTrans Route 270. Two free shuttle services, Redwood City-Seaport Centre Caltrain and Pacific Shores Shuttle, connect the Port to Caltrain. Aside from these, there is no direct service between the Port and Belmont, Foster City, and San Mateo, which are seen as potential opportunities in the SamTrans plan.

Menlo Park Transportation Master Plan

This transportation plan[68] provides a vision, goals, and performance metrics for achieving four guiding goals of safety, sustainability, mobility choice, and congestion management. Recommended Tier 1 projects identified in the Plan include the Bayfront Expressway Multimodal Corridor Project, which involves bicycle lane, pedestrian, and intersection improvements, and Transit Signal Priority for buses in the vicinity of Marsh Avenue, Haven Avenue, and Bayfront Expressway, and the Marsh Corridor Mobility Project to establish Class II bike lanes and an additional bicycle and pedestrian bridge over US 101, north of Marsh Road.

3.14.3.2 Environmental Setting

Redwood City and the Port of Redwood City are served by a wide range of transportation facilities and multimodal travel options. The level terrain, moderate weather, and proximity to amenities make activities such as biking, walking, and taking public transit particularly suitable in the City. There are

[65] City of Redwood City. May 2023. City of Redwood City Emergency Operations Plan. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/8D.%20ATTACHMENT%20A%20%E2%80%93%20RESOLUTION%20ADOPTING%20THE%20REDWOOD%20CITY%20EMERGENCY%20OPERAT.pdf?meetingId=2429&documentType=Agenda&itemId=9167&publishId=14432&isSection=false.

[66] San Mateo County Transportation Authority (SMCTA). No Date. 2025-2029 Strategic Plan. Available: https://www.smcta.com/media/StrategicPlan2025-2029.

[67] San Mateo County Transit District (SamTrans). March 2022. Reimagine SamTrans. Available: https://www.samtrans.com/media/19711/.

[68] City of Menlo Park. November 2020. Transportation Master Plan. Available: https://menlopark.gov/files/sharedassets/public/v/2/public-works/documents/transportation/transportation-projects/2020-transportation-master-plan.pdf.

currently no public ferry passenger services available in Redwood City. The following describes the current transportation amenities close to the project site, including the roadway system, facilities for cyclists and pedestrians, public transit options, and background planned facilities. Background weekday daily and per capita VMT estimates for the project area and existing safety of the roadway network in the project vicinity are also discussed. See Appendix H for additional discussion of the existing transportation setting for the proposed project.

3.14.3.2.1 Existing Facilities

The proposed 9.2-acre project site is located adjacent to Seaport Boulevard loop road, which runs along the northern edge of the Pacific Shores Center and parking lot. The key regional roadway is the US 101 freeway that directly connects with Seaport Boulevard through interchange ramps. US 101 provides access to residences/businesses in the northern parts of Redwood City, and parts of the City of Menlo Park and City of San Carlos.

Seaport Boulevard, SR 84 (Woodside Road), Whipple Avenue, Marsh Road, Veterans Boulevard, Maple Street, East Bayshore Road and Blomquist Street provide local roadway access to the downtown area and other parts of Redwood City and unincorporated area of North Fair Oaks. Seaport Boulevard/SR 84 (Woodside Road), Seaport Boulevard/Blomquist Street/Maple Street and Seaport Boulevard/E Bayshore Road act as the first mile/last mile pathways from/to the project site.

Seaport Boulevard, the main connector road, is a four-lane local road stretching 1.7 miles east of US 101. It is the primary access road to the project site and serves primarily industrial land uses (e.g., Port of Redwood City) and commercial land uses (e.g., Pacific Shores Center). The Port of Redwood City Municipal Marina located west of Seaport Boulevard has liveaboards (people who reside on boats).

A Class I multi-use path (shared-use bicycle and pedestrian path separated from the roadway for auto use) runs parallel to Seaport Boulevard starting at the intersection of East Bayshore Road/Blomquist Street. The Class I path on Seaport Boulevard connects to the bicycle facilities on East Bayshore Road, which are partly Class II type (dedicated bicycle lanes running adjacent to roadway for auto use) and Class III type (bicycle route sharing right-of-way with roadway for auto use).

The existing pedestrian facilities along with the moderate weather and level terrain in Redwood City make walking relatively easy. Most of the project area roadways have a sidewalk or pathway and there are numerous crosswalks and signalized intersections throughout the City. However, the roads leading to the project site lack continuous sidewalks along Woodside Road, Blomquist Street, East Bayshore Road, and Seaport Boulevard. There is no sidewalk adjacent to the Seaport Boulevard loop road. Additionally, connecting streets from Whipple Avenue, Maple Street, and Marsh Road have gaps in their sidewalk network.

Public transportation services in Redwood City are provided by Caltrain and SamTrans and commute.org shuttles. The Caltrain commuter rail service operates along the San Francisco Peninsula, connecting Redwood City to San Francisco, San Jose, and Gilroy. It serves as a vital link for daily commuters and travelers. Within Redwood City, the railway runs parallel and to the north of El Camino Real. The Redwood City Transit Center, situated downtown between Jefferson Avenue and Broadway, approximately 2.5 miles southwest of the project site, accommodates both a Caltrain station and a major SamTrans bus transfer facility. The San Mateo County Transit District oversees SamTrans buses, providing local and regional transportation options. No SamTrans bus route directly serves the project site. Route 270 is the

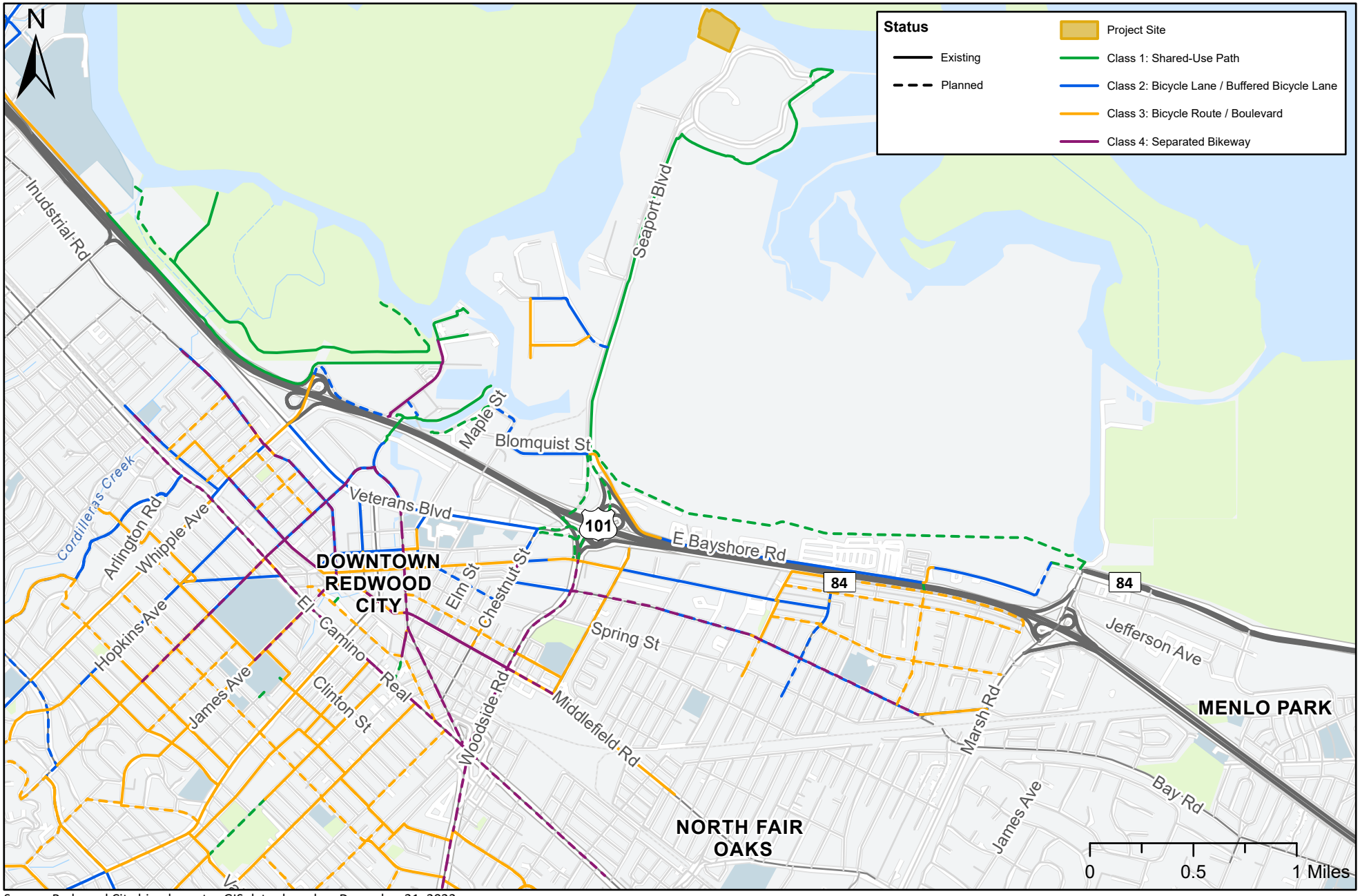
closest stop on East Bayshore Road, and it is just under two (2) miles south of the project site. The Pacific Shores and the Seaport Center shuttles to Redwood City Caltrain are the closest public-private partnership shuttle services to the project site. The Pacific Shores shuttle operates two routes, one that makes 4 stops around the Pacific Shores Center and one express route, which has only one stop at the Pacific Shores Center. The Seaport Center shuttle makes 5 stops within the Seaport Center and one stop near Maple Street. Both routes operate during peak hours between the business parks and the Caltrain station at the Redwood City Transit Center.

3.14.3.2.2 Background Planned Facilities

The US 101/SR 84 (Woodside Road) Interchange Project is one of the City's current capital projects with 95 percent design ready and an estimated completion year of 2028. The project scope includes traffic operation and bicycle and pedestrian access improvements across US 101. As per the redesign project's revised final traffic operations analysis report (2015),[69] this includes: (a) redesign of the existing southbound off-ramp termini from a five-legged intersection to a four-legged intersection, (b) a direct Veterans Boulevard ramp connection to US 101, (c) perpendicular ramp termini to Woodside Road to allow for improved crossings for both pedestrians and bicyclists, and (d) Class I shared-use path on the north side and south side of the US 101 / Woodside Road interchange to provide safer pedestrian/bicycle access across the interchange.

Redwood City's Walk Bike Thrive Plan, discussed in **Section 3.14.3.1.3**, identifies multiple planned bicycle improvements in the City as seen in **Figure 3.14-2**. The additional bicycle routes will bridge gaps in the current network, adding more connections to Seaport Boulevard and the project site. Planned improvements in the project area include a path from Seaport Boulevard to Veteran's Boulevard and improvements to the path along Seaport Boulevard to meet current best practices for trail design. The US 101/SR 84 (Woodside Road) Interchange Improvement Project described above includes plans for: bicycle and pedestrian connections along Woodside Road under US 101 and along Veterans Boulevard between Chestnut Street and Woodside Road that would connect to the path on Seaport Boulevard; Class II bicycle lanes west of US 101, along Woodside Road and Broadway, to connect with communities and businesses south and east of the Broadway and Woodside Road intersection; additional Class I shared-use bicycle path connections east and parallel to US 101, that will improve bicycle connectivity of Seaport Boulevard to job centers in northern Redwood City (e.g., Oracle campus) and eastern Menlo Park (e.g., Meta campus) and enhance safety and level of rider comfort; and a high-quality bicycle and pedestrian connection and gap closure over US 101 that connects east and west sides of the interchange.

[69] City of Redwood City. December 9, 2015. US 101/SR 84 (Woodside Road) Interchange Improvement Project, Revised Final Traffic Operations Analysis Report. Available: https://www.redwoodcity.org/home/showpublisheddocument/25747/638041021964800000.



Source: Redwood City bicycle routes GIS data shared on December 21, 2023.

Figure 3.14-2

EXISTING AND PLANNED BICYCLE FACILITIES

3.14.3.2.3 Background VMT

Background weekday daily and per capita VMT estimates for Redwood City, San Mateo County and San Francisco Bay Area Region are shown in **Table 3.14-4**.

Table 3.14-4 Background Weekday Daily VMT and Per Capita VMT Estimates in 2023 and 2040

Geography	Weekday Daily VMT (millions)		Weekday Per Capita VMT	
	2023	2040	2023	2040
Redwood City TAZs	5.23	7.01	31.8	31.3
San Mateo County TAZs	37.50	44.15	30.4	30.6
San Francisco Bay Area Region TAZs	398.64[1]	484.13[1]	28.8[2]	28.8[2]

Sources: Redwood City updated C/CAG's travel demand model with base year of 2023 and forecast year of 2040; C/CAG, September 2021. SB 743 Implementation Decisions, Table 5: Total Project Generated VMT – San Mateo County and Bay Area Region. Available: https://ccag.ca.gov/wp-content/uploads/2021/11/1_20210929_CCAG_SB_743_Implementation_Decisions_Cln.pdf.

Notes:

[1] Value for this daily VMT is estimated by multiplying service population with per capita VMT.

[2] C/CAG's SB 743 Implementation Decisions, Table 5 – 2015 and 2040 Per Capita VMT Data for Bay Area Region used for 2023 and 2040.

The model estimates are the basis for the per capita VMT thresholds of significance estimation, so they are presented here instead of U.S. Census estimates.

Key: TAZs = Transportation Analysis Zones, VMT = vehicle miles traveled

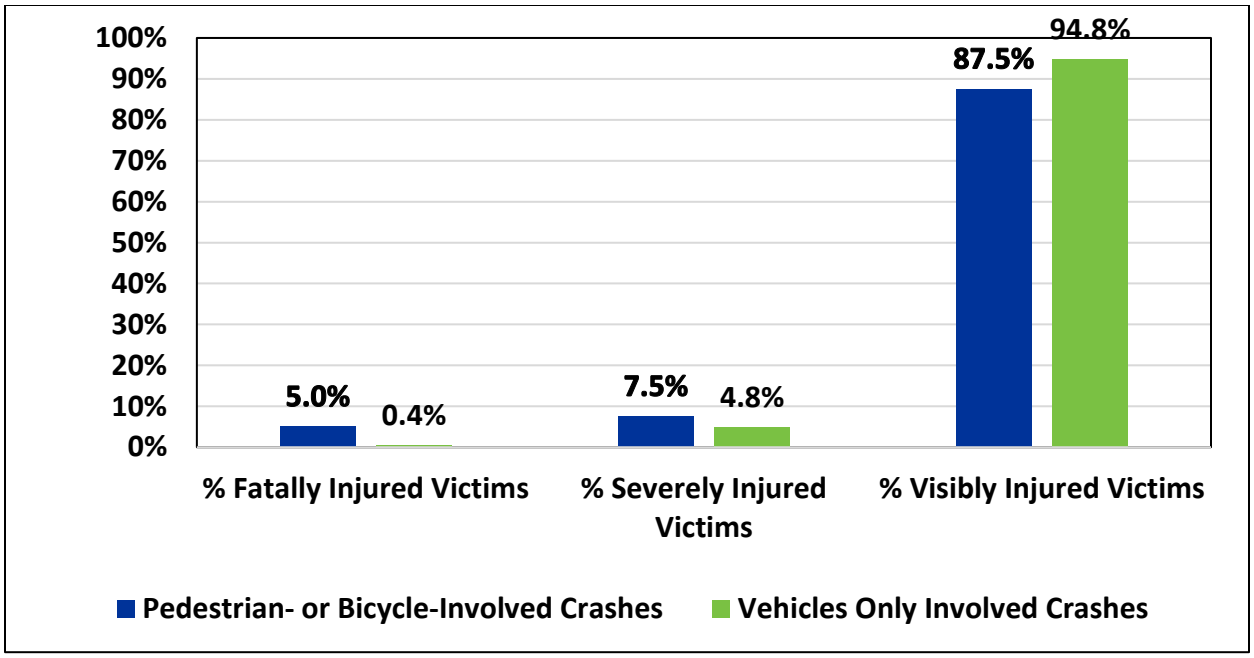
Collision History

The transportation study for the proposed project (Appendix H) assessed crashes over a 6-year historical period (2017-2022) on the non-freeway roadway network in the project vicinity using data provided by the Redwood City Engineering and Transportation Department (See Appendix H for additional information). On Seaport Boulevard, where the highest concentration of proposed project trips would be present, the existing crash frequency and severity is low.

The key crash locations for all crash types combined (vehicle-to-vehicle, bicycle-involved, and pedestrian-involved) in the project vicinity are as follows:

- The intersections of SR 84 (Woodside Road)/US 101 SB Off-Ramp and Broadway, SR 84 (Woodside Road) / Middlefield Road, and Whipple Avenue and US 101 SB Off-Ramp / Veterans Boulevard, and the arterial segment of Veterans Boulevard (West) from Maple Street to Whipple Avenue have over 10 collisions per year.
- The intersection of SR 84 (Woodside Road)/Middlefield Road and the segment of Veterans Boulevard (West) from Maple Street to Whipple Avenue have the greatest number of bicycle- and pedestrian-involved collisions.

On the non-freeway roads analyzed, crashes have a severity distribution as shown in **Figure 3.14-3**. The share of pedestrian- and bicycle-involved crashes which fatally and severely injured victims was 12.5 percent, which is higher than the share of vehicles only involved crashes which fatally and severely injured victims at 5.2 percent, as also shown in the figure.



Source: City of Redwood City. Redwood City Collisions Data for the period from January 1, 2017 to December 31, 2022.

Figure 3.14-3 Severity Distribution in Non-Freeway Crashes

The primary collision factors for different crash types are as follows:

- **Pedestrian-involved crashes:** About 52 percent of these crashes are due to failure of vehicles to yield to pedestrians at crosswalks, unsafe starting or backing of vehicles, basic speed law violations, and unsafe left or right turn movements. Approximately 7 percent of the crashes are related to unsafe crossings by pedestrians and approximately 16 percent do not have an identified primary collusion factor.
- **Bicycle-involved crashes:** About 52 percent of these crashes are due to failure to drive on the right side of road, unsafe left or right turn movements, basic speed law violation, and failure to yield when entering or crossing on to a highway from any public or private property or alley. About 9 percent of the collisions involved bicycles and an unidentified object and 91 percent involved a bicycle and a vehicle.
- **Vehicles only involved crashes:** About 62 percent of these crashes are due to basic speed law violations, unsafe left or right turn movements and failure to stop at a red light.

3.14.4 Thresholds of Significance

The proposed project would result in significant impacts associated with transportation if it would:

Impact 3.14-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Impact 3.14-2 Conflict or be inconsistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM:

- If a land use change exceeds countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM; or

- If a transportation project would result in an increase in per capita VMT.

Impact 3.14-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 3.14-4 Result in inadequate emergency access or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

CEQA Guidelines Section 15064.3, Subdivision (b) specifies that VMT is the appropriate metric to evaluate transportation impacts on the environment. The Guidelines state that "transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact." The proposed project's impacts on the environment were quantitatively measured using VMT as the metric. The Guidelines state that a lead agency has discretion on choosing the most appropriate methodology to evaluate VMT, including whether to express the change in absolute terms, per capita, etc. Impacts of the proposed project were evaluated in terms of annual VMT and per capita VMT.

Redwood City's 2020 TAM[70] provides criteria for evaluating the proposed project's impacts, which in turn is influenced by the SB 743 legislation,[71] and Caltrans and C/CAG guidance on transportation analysis.[72,73,74] The Redwood City TAM provides VMT impact criteria for land use projects. The significance of the visitor-serving uses' impact was evaluated by whether the per capita VMT of the hotel-, restaurant, and office-related land uses would exceed countywide thresholds. The Redwood City TAM does not have a per capita threshold for transportation projects; the significance of the ferry terminal's impact was evaluated by whether per capita VMT decreased.

Table 3.14-5 shows the VMT impact criteria and thresholds defined in the TAM for land use types under baseline conditions. The TAM also states that the cumulative threshold for the project's effect on VMT is any change to the City's per capita VMT, applying the boundary method, which captures all VMT on the street and highway network within a defined boundary. In this case the boundary is the city limits of Redwood City.

[70] City of Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311184673700000.

[71] California Legislative Information. 2013. SB 743 as Enrolled and Chaptered on September 27, 2013. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743.

[72] California Department of Transportation (Caltrans). September 2020. Transportation Analysis Framework (TAF) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-taf-fnl-a11y.pdf.

[73] California Department of Transportation (Caltrans). September 2020. Transportation Analysis under CEQA (TAC) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf.

[74] City/County Association of Governments of San Mateo County (C/CAG). September 2021. SB 743 Implementation Decisions, Table 5: Total Project Generated VMT – San Mateo County and Bay Area Region. Available: https://ccag.ca.gov/wp-content/uploads/2021/11/1_20210929_CCAG_SB_743_Implementation_Decisions_Cln.pdf.

Towards the application of the VMT criteria, two assumptions are made:

- Proposed ferry service is assumed as an "initiation of transit service" project type, which Caltrans screens out as a project type that is not likely to lead to a measurable and substantial increase in vehicle travel, so, the ferry terminal only project initiating a new transit service, on a standalone basis, does not need to be evaluated for the significance of VMT impacts. Net VMT change due to the ferry terminal only project is reported in **Section 3.14.5** for informational purposes only.[75]
- Proposed restaurant (one among the proposed project elements) is assumed as a "retail" land use type, for which Redwood City defined a threshold of 32.0 total VMT per service population (see **Table 3.14-5** below).

Table 3.14-5 VMT Impact Criteria for Land Use Projects under Baseline Conditions

Project Type	Significance Criteria	Current Level	Impact Threshold
Residential	A project exceeds existing countywide home-based VMT per capita minus 15 percent	12.3 Home-based VMT per capita (Countywide Average)	10.5 Home-based VMT per capita
Office	A project exceeds countywide home-based work VMT per employee minus 15 percent	17.6 Home-based work VMT per employee (Countywide Average)	15.5 Home-based work VMT per employee
Retail/Hotel	A net increase in total countywide VMT per service population	32.0 Total VMT per service population	32.0 Total VMT per service population
Mixed-Use[1]	--	--	--
Other Land Use Types[2]	--	--	--

Source: City of Redwood City. July 21, 2020. RWCmoves. Appendix F, Table F-8, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311118467370000.
Notes:
[1] **Mixed-Use** – Evaluate each component of a mixed-use development independently, taking credit for internal capture and apply the significance criteria for each project type.
[2] **Other Land Use Types** – The City's TAM explicitly addresses residential, office, and retail/hotel projects because those are very common land use types. Applicants should coordinate with the City to develop appropriate, project-based VMT thresholds for other land uses such as entertainment, education, medical, and industrial/warehouse.
Key: VMT = vehicle miles traveled; -- = not defined.

Table 3.14-6 summarizes Redwood City's mobility deficiency and impact criteria other than VMT under baseline and/or cumulative conditions. The criteria for on-site circulation, parking, pedestrian facilities, bicycle facilities, transit, and off-site traffic operations are used in the analysis of consistency with circulation plans and the safety analysis. Other criteria relating to intersections, freeway, and arterial segments shown in the table are used in non-CEQA LOS analysis in the Transportation Study Report (Appendix H) only.

[75] California Department of Transportation (Caltrans). September 2020. Transportation Analysis under CEQA (TAC) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf.

Table 3.14-6 Mobility Deficiency Criteria and Standards

Facility Type	Standard	Mobility Deficiency Criteria
On-Site Circulation	N/A	Project designs for on-site circulation, access, and parking fail to meet City design guidelines. Where City standards are not defined, industry standards (Highway Design Manual, Manual on Uniform Traffic Control Devices [MUTCD], etc.) should be referenced, as appropriate. Failure to provide adequate accessibility for service and delivery trucks on-site, including access to loading areas. Project will result in a hazard or potentially unsafe conditions without improvements.
Parking	N/A	Project increases off-site parking demand above a level required by the City Zoning Code.
Pedestrian Facilities	N/A	Project fails to provide safe and accessible pedestrian connections between project buildings and adjacent streets, trails, and transit facilities. Project adds trips to an existing facility along the project frontage that does not meet current pedestrian design standards.
Bicycle Facilities	N/A	Project disrupts existing or planned bicycle facilities or is otherwise inconsistent with RWCmoves or future plans. Project adds bicycle trips along project frontage to an existing facility that does not meet current bicycle design standards.
Transit	N/A	Project disrupts existing or planned transit facilities and services or conflicts with City adopted plans, guidelines, policies, or standards.
Non-CMP Signalized Intersection	D (Outside Downtown) or E (Downtown)	Addition of project traffic causes a signalized intersection to 1) operate at LOS E or F overall or the worst-case movement, or 2) adds five seconds of delay to intersections already operating at LOS E or F under the comparable “no project” scenario.
Non-CMP Unsignalized Intersection	D (Outside Downtown) or E (Downtown)	Addition of project traffic causes an all-way stop-controlled or side street stop-controlled intersection to 1) operate at LOS E or F overall or for the worst-case movement, and 2) meets the Caltrans signal warrant criteria.
CMP Intersection	Varies (see C/CAG 2023 CMP requirements)	The proposed project is considered to have a CMP deficiency when the addition of the project will cause the CMP intersection to operate at a LOS that violates the standard adopted in the current CMP. The proposed project is considered to have a CMP impact when the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the CMP intersection operating at a LOS that violates the standard adopted in the current CMP, and the proposed project increases average control delay at the intersection by four seconds or more.
CMP Freeway	Varies (see C/CAG 2023 CMP requirements)	The proposed project is considered to have a CMP deficiency when the addition of the project traffic causes the CMP roadway segment to operate at a LOS that violates the standard adopted in the current CMP. The proposed project is considered to have a CMP impact when the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will cause the freeway segment to operate at a LOS that violates the standard adopted in the current CMP, and the proposed project increases traffic demand on that freeway segment by an amount equal to one percent or more of the segment capacity, or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one percent.
CMP Arterial	Varies (see C/CAG 2023 CMP requirements)	The proposed project is considered to have a CMP deficiency when the addition of the project traffic causes the CMP roadway segment to operate at a LOS that violates the standard adopted in the current CMP. The proposed project is considered to have a CMP impact when the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will cause the arterial segment to operate at a LOS that violates the standard adopted in the current CMP, and the proposed project increases traffic demand on that arterial segment by an amount equal to one percent or more of the segment capacity, or causes the arterial segment v/c ratio to increase by one percent.
Off-Site Traffic Operations	N/A	95th percentile vehicle queues exceed the existing or planned length of a turn pocket. The proposed project introduces a design feature that substantially increases safety hazards.

Source: City of Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311118467370000.
Key: CMP = Congestion Management Program; N/A = Not Available; RWCmoves = Redwood City moves

3.14.5 Project Impacts

3.14.5.1 Impact 3.14-1

Impact 3.14-1: Would the proposed project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

3.14.5.1.1 Construction and Operations

The project would have a significant impact if it would result in a significant conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, that would result in substantial adverse physical impacts not analyzed elsewhere in this EIR. **Section 3.14.5.1.1.3** analyzes the project's consistency with relevant programs, plans, ordinances, or policies addressing the circulation system. **Sections 3.14.5.1.1.1** and **3.14.5.1.1.2** discuss the relevant components of the ferry terminal and visitor-serving uses elements, respectively, of the project.

3.14.5.1.1.1 Ferry Terminal

Construction of the ferry terminal would result in temporary lane closures on Seaport Boulevard. Work in the right-of-way would require an encroachment permit from the City, including a traffic control plan, and would be coordinated with Pacific Shores Center management, the City, and local emergency service providers, as discussed in **Section 3.14.5.4**. The traffic control plan would include measures such as signage, partial lane closures, and safety personnel to maintain safe travel for vehicles, bicycles, and pedestrians, and ensure continued emergency access during construction. Therefore, because of compliance with requirements, construction of the ferry terminal would not conflict with a program, plan, ordinance, or policy addressing the circulation system. There would be no impact.

Operation of the proposed project would result in new "first mile/last mile" person trips to access the new ferry terminal service. As shown in **Table 3.14-7**, the ferry terminal would generate 1,630 person trips in 2023 (model base year) and increase to 4,070 person trips by 2040, on a weekday daily basis. As shown in **Table 3.14-8**, in 2023, weekday AM peak hour and PM peak hour project travel volume would be 220 and 229 vehicle trips, respectively. By 2040, this could increase to 507 and 531 vehicle trips, respectively. These trips include vehicle trips to and from the San Francisco and Oakland ferry terminals.

Although the ferry terminal would increase visitors and generate new trips to the project site and the San Francisco and Oakland ferry terminals, the new ferry service and terminal in Redwood City would reduce VMT in the San Francisco Bay region overall as discussed in **Section 3.14.5.2**.

To facilitate access to the proposed ferry terminal and improve motorized and non-motorized access to the project site, the implementation of the ferry terminal includes the improvements that are summarized below and discussed in more detail in Chapter 2, Project Description, of this Draft EIR. These improvements are depicted in Figure 2-9 in Chapter 2.

The ferry terminal would be accessed via a new access road connecting to the Seaport Boulevard loop road, south of the waterfront park parking lot. Within the project site, a one-way one-lane road would travel counter-clockwise around the ferry terminal parking lot, and vehicles would be able to enter or exit the parking lot from this road.

Table 3.14-7 Proposed Project Person Trips

Trip Type	Year 2023 Person Trips				Year 2040 Person Trips			
	Annual Total	Weekday Daily Total	Weekend Daily Total	Special Event Day	Annual Total	Weekday Daily Total	Weekend Daily Total	Special Event Day
Ferry Terminal Component								
End-to-End "Drive Alone" Trips Avoided[1]	-510,900	-1,630	-810	-90	-1,257,200	-4,070	-1,850	-210
Redwood - Oakland Ferry Service Trips Added	185,200	710	N/A	N/A	511,000	1,960	N/A	N/A
Redwood - San Francisco Ferry Service Trips Added	325,700	920	810	90	746,200	2,110	1,850	210
Summary:								
Net Trips To/From Project Site	510,900	1,630	810	90	1,257,200	4,070	1,850	210
Net Trips Avoided To/From Project Site	-510,900	-1,630	-810	-90	-1,257,200	-4,070	-1,850	-210
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Visitor-Serving Uses Component								
Hotel Trips Added	631,500	1,790	1,580	N/A	631,500	1,790	1,580	N/A
Office Trips Added	37,000	130	30	N/A	37,000	130	30	N/A
Restaurant Trips Added	964,600	2,390	2,980	N/A	964,600	2,390	2,980	N/A
Sub-Total	**1,633,100**	**4,310**	**4,590**	**0**	**1,633,100**	**4,310**	**4,590**	**0**
Full Project								
Summary:								
Net Trips To/From Project Site	2,144,000	5,940	5,400	90	2,890,300	8,380	6,440	210
Net Trips Avoided To/From Project Site	-510,900	-1,630	-810	-90	-1,257,200	4,070	1,850	**210**
Total	**1,633,100**	**4,310**	**4,590**	**0**	**1,633,100**	**4,310**	**4,590**	**0**

Sources: City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://www.redwoodcity.org/home/showpublisheddocument/22921/637442616488470000; Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf; Ferry Ridership Adjustment (Attachment 5 of this Report) and Peak Hour Traffic Calculations by CDM Smith; Institute of Transportation Engineers (ITE). 2021. Trip Generation Manual 11th Edition, Daily Trip Generation Rates; Project Trip Calculations and Mode Split Assumptions by CDM Smith; U.S. Environmental Protection Agency (USEPA). No Date. Mixed-Use Trip Generation Model v4 (MXD Tool). Available: https://www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed August 8, 2024; U.S. Department of Transportation, Federal Highway Administration (FHWA). April 2018. Average Vehicle Occupancy Factors for Computing Travel Time Reliability Measures and Total Peak Hour Excessive Delay Metrics. Available: https://www.fhwa.dot.gov/tpm/guidance/avo_factors.pdf.

Note: [1] Trips that would not happen if the proposed project is implemented.

Key: N/A = Not Applicable

Table 3.14-8 Proposed Project Vehicle Trips

Trip Type	Year 2023 Vehicle Trips				Year 2040 Vehicle Trips			
	Annual Total	Weekday Daily Total	Weekday AM Peak Hour	Weekday PM Peak Hour	Annual Total	Weekday Daily Total	Weekday AM Peak Hour	Weekday PM Peak Hour
Ferry Terminal Component								
End-to-End "Drive Alone" Trips Avoided[1]	-510,900	-1,630	-273	-286	-1,257,200	-4,070	-638	-667
Redwood Ferry Terminal "First Mile/Last Mile" Trips Added	403,700	1,288	220	229	994,000	3,218	507	531
Oakland Ferry Terminal "First Mile/Last Mile" Trips Added	95,500	366	67	72	262,300	1,006	173	185
San Francisco Ferry Terminal "First Mile/Last Mile" Trips Added	56,600	160	29	30	129,400	366	57	58
Summary:								
Net Trips To/From Project Site	403,700	1,288	220	229	994,000	3,218	507	531
Net Trips Avoided To/From Project Site	-358,800	-1,104	-177	-184	-865,500	-2,698	-408	-424
Sub-Total	**44,900**	**184**	**43**	**45**	**128,500**	**520**	**99**	**107**
Visitor-Serving Uses Component								
Hotel Trips Added	543,300	1,540	89	113	543,300	1,540	89	113
Office Trips Added	30,800	110	15	13	30,800	110	15	13
Restaurant Trips Added	831,700	2,060	184	174	831,700	2,060	184	174
Sub-Total	**1,405,800**	**3,710**	**288**	**300**	**1,405,800**	**3,710**	**288**	**300**
Full Project								
Summary:								
Net Trips To/From Project Site	1,809,500	4,998	508	529	2,399,800	6,928	795	831
Net Trips Avoided To/From Project Site	-358,800	-1,104	-177	-184	-865,500	-2,698	-408	-424
Total	**1,450,700**	**3,894**	**331**	**345**	**1,534,300**	**4,230**	**387**	**407**

Sources: City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://www.redwoodcity.org/home/showpublisheddocument/22921/637442616488470000; Port of Redwood City. June 2, 2022. Redwood City Ferry Business Plan Prepared by CDM Smith. Available: https://www.redwoodcityport.com/_files/ugd/521530_787a23efc80a4b11956b3e18e66c9160.pdf; Ferry Ridership Adjustment (Attachment 5 of this Report) and Peak Hour Traffic Calculations be CDM Smith; Institute of Transportation Engineers (ITE). 2021. Trip Generation Manual 11th Edition, Daily and Peak Hour Trip Generation Rates; Project Trip Calculations and Mode Split Assumptions by CDM Smith; U.S. Environmental Protection Agency (USEPA). No Date. Mixed-Use Trip Generation Model v4 (MXD Tool). Available: https://www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed August 8, 2024; U.S. Department of Transportation, Federal Highway Administration (FHWA). April 2018. Average Vehicle Occupancy Factors for Computing Travel Time Reliability Measures and Total Peak Hour Excessive Delay Metrics. Available: https://www.fhwa.dot.gov/tpm/guidance/avo_factors.pdf.

Note:

[1] Trips that would not happen if the proposed project is implemented.

The western leg of the Seaport Boulevard loop road would be widened to accommodate a new 10-foot ADA-compliant sidewalk and Class I bicycle trail. The new trail and sidewalk would commence at the entrance to the Pacific Shores Center and connect to an existing crosswalk that adjoins the existing trail along Seaport Boulevard to the west that connects to the future bike and pedestrian path at the US 101/SR 84 (Woodside Road) interchange and Broadway and Veterans Boulevard. The access improvements planned in the proposed project would address a gap in the pedestrian/bicycle networks between the project site and the planned US 101/ SR 84 (Woodside Road) Interchange improvement project around Seaport Boulevard/Blomquist Street intersection. The intersection at the entrance to the Pacific Shores Center would be modified to accommodate the proposed sidewalk and bicycle trail and establish a safe connection to the existing trail to the south. The entrance to the Pacific Shores Center is currently an all-way stop-controlled intersection. There would be a need to signalize this intersection under cumulative ferry terminal project conditions. As described in Section 2.5.1.4 in Chapter 2, Project Description, the Port may install a traffic signal at this intersection in 2039 with operation by 2040, although the Port would install it at an earlier date if required to meet City standards. Should the intersection continue to operate without substantial delays through 2039, the Port may prepare a further traffic study to determine if installation of a traffic signal or other improvement is required.

The proposed project would also extend the Bay Trail along the northern edge of the project site, connecting to the ferry terminal, the other pedestrian and bicycle access improvements, and the existing roadway and trail network.

The new site access road would eliminate one entrance to the existing public parking lot east of the project site, thereby limiting parking lot access to the northern driveway from Seaport Boulevard loop road. Vehicles could continue to enter the public parking lot by turning left into the lot if traveling northeast on the loop road, or by turning right if traveling southwest on the loop road. However, there would be no direct access between the western public parking lot and the new project site access road.

The existing Seaport Center Caltrain shuttle that operates between the Caltrain Redwood City Station and the Pacific Shores Center and Seaport Center would serve the project site and provide connectivity to downtown Redwood City and other transit connections including SamTrans Redwood City Transit Center that is co-located with the Caltrain Redwood City Station. Several larger employers in the area operate private shuttles for employees to and from transit centers, which could also provide connection to the ferry terminal either as a ferry terminal stop or from a connecting location. Additionally, Reimagine SamTrans plan[76] mentions future transit connectivity opportunities between the Port and Belmont, Foster City, and San Mateo. Coordination between the Port, Redwood City, and nearby cities, SamTrans, Commute.org, and local employers would be needed to continue to convert some of the above opportunities to memorandums of understanding and actual transit service when the ferry terminal is built.

The proposed ferry terminal includes a surface parking lot with 250 parking spaces. The Transportation Study Report (Appendix H) estimated the demand for users parking near the proposed ferry terminal and

[76] San Mateo County Transit District (SamTrans). March 2022. Reimagine SamTrans. Available: https://www.samtrans.com/media/19711/.

heading to San Francisco or Oakland on a weekday as 190 vehicles in 2023.[77] A parking capacity of 250 spaces would be sufficient to meet this estimated parking demand. For the total of 250 spaces, the proposed project would provide the minimum required seven accessible parking spaces, of which a minimum of two parking spaces would also be van accessible[78] in compliance with ADA regulations.

The ferry terminal would have 16 bicycle lockers (long-term) for bicycle/micromobility devices (such as scooters) storage at the start of ferry terminal operations with room for expansion to meet the demand that would be determined during operations. There would also be unsecured (short-term) bicycle parking facilities for a minimum of two bicycles. Considering the project site area of 90,000 square feet, this is equivalent to one bike parking space per 5,625 square feet of long-term parking, which is higher than the minimum required for a parking lot/stand-alone garage outside Downtown area of 1 per 20,000 square feet of long-term parking as per the City's Bicycle Parking Design Guidelines.[79] The design of the bicycle lockers and unsecured bicycle parking would consider these guidelines' recommendations on the location and access for the protection of bicycles from theft, vandalism, and weather, and ease of access to ferry users and diversity of their bicycles.

The ferry terminal would provide designated passenger loading/unloading areas for transit, taxi, and transportation network company (TNC) vehicles, which would support multimodal access to the project site and may reduce demand for auto parking spaces.

The ferry terminal would provide a new transit option for commuters south of San Francisco and it would contribute to reduced VMT within the San Francisco Bay Region overall. It would include roadway improvements that would enhance circulation within and connecting to the project site, including providing benefits for transit users and bicyclists. This is consistent with numerous State, regional, and local programs, plans, ordinances, and policies addressing the circulation system, as addressed in greater detail for the entire project in **Section 3.14.5.1.1.3**. The ferry terminal would comply with and help to satisfy the goals and policies of several plans, ordinances, and policies that address circulation, as shown in **Table 3.14-9**. Therefore, operation of the ferry terminal would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would be no impact.

[77] The rounded value of 190 was estimated by multiplying the percent AM (forward commute) trips from Redwood City to Oakland and San Francisco of 11.7 percent computed using ridership estimate in the Ferry Business Plan to the total weekday vehicle (auto mode) trip estimates after ridership adjustments in this study at the proposed Redwood City ferry terminal of 1,630 trips in 2023.

[78] U.S. Department of Justice, Civil Rights Division. No Date. Americans with Disabilities Act (ADA) - Accessible Parking Spaces webpage. Available: https://www.ada.gov/topics/parking/. Accessed August 24, 2024.

[79] City of Redwood City. June 2024. Bicycle Parking Design Guidelines. Available: https://www.redwoodcity.org/home/showpublisheddocument/29028/638623564866770000.

Table 3.14-9 Proposed Project's Consistency with Applicable Plans, Programs, Ordinances, and Policies

Plan, Program, Ordinance, or Policy	Proposed Project Consistency
CalSTA's California Transportation Plan 2050	
The Plan expects that per capita VMT would decrease from 23 miles per day in the 2050 baseline to only 16 miles per day under the Plan's combined scenario. The Plan encourages transit-oriented, compact development, combined with an increase in telework and transportation focus strategies such as higher capacity, frequency and fare free local transit, reduced last-mile deliveries, increase in high occupancy vehicle (HOV) 3+ vehicles, road user charges, congestion pricing, etc.	The proposed project would add regional transit capacity and shift trips between Redwood City and the cities of San Francisco and Oakland regionally from auto to ferry mode. Additionally, the development of visitor-serving uses and the Bay Trail expansion adjacent to the ferry terminal is an efficient land use that pairs supportive uses adjacent to public transit. The proposed project would result in reduced VMT compared to a no project alternative; therefore, the proposed project would be consistent with the California Transportation Plan 2050. There would be no inconsistencies resulting in a direct physical impact on the environment.
CARB's 2017 Scoping Plan and 2022 Scoping Plan Update	
The Final 2022 Scoping Plan Update includes goals to achieve a Statewide reduction of VMT of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.	The proposed project would add regional transit capacity and shift trips between Redwood City and the cities of San Francisco and Oakland regionally from auto to ferry mode. This would result in reduced VMT. Therefore, the proposed project would be consistent with the Scoping Plan and Scoping Plan Update's Statewide GHG reduction goals. There would be no inconsistencies resulting in a direct physical impact on the environment.
Port's 2020 Vision Plan	
The Port's 2020 Vision Plan identifies a ferry terminal as a key component of the Plan.	The proposed project would implement a vision project of a ferry terminal and when combined with visitor-serving uses would further increase the City's connection to the waterfront. The proposed project would implement the expansion of ferry service identified in the Port's 2020 Vision Plan to expand ferry service, reduce highway congestion, and enhance the emergency response network. The proposed project would also support implementation of 2020 Vision Plan goals for increasing the City's connection to the waterfront. Therefore, the proposed project would be consistent with the Vision Plan's vision for the project site. There would be no inconsistencies resulting in a direct physical impact on the environment.
WETA's 2016 Strategic Plan and 2050 Service Vision and Expansion Policy	
Goal 1 of the 2050 Service Vision and Expansion Policy seeks to grow WETA's ferry network and routes and specifically identifies Redwood City service as a priority project. Goal 4 seeks to establish and foster partnerships to ensure quality ferry transportation services.	The proposed project would implement the expansion of ferry service identified in WETA's 2016 Strategic Plan. The proposed project would establish a ferry service at Redwood City and expand ferry service across the San Francisco Bay Area. The visitor-serving uses, in conjunction with the ferry terminal, would create an integrated, attractive service that serves Bay Area communities. WETA and the Port are working together for the provision of expanded ferry services. Therefore, the proposed project would be consistent with Goal 1 and Goal 4 of the Policy. There would be no inconsistencies resulting in a direct physical impact on the environment.

Plan, Program, Ordinance, or Policy	Proposed Project Consistency
Metropolitan Transportation Commission's (MTC's) Plan Bay Area 2050+ and Transit-Oriented Communities (TOC) Policy	
MTC's Plan Bay Area 2050+ adopted Project ID 25-T11-165 to implement new ferry service between Oakland, San Francisco, and Redwood City in the period of 2036 - 2050, including a new terminal in Redwood City. The TOC Policy includes vehicle and bicycle parking requirements for new commercial development.	The proposed project would add regional transit capacity and shift trips between Redwood City and the cities of San Francisco and Oakland regionally from auto to ferry mode by implementing new ferry service between Oakland, San Francisco, and Redwood City in the period of 2036 - 2050, including a new terminal in Redwood City. The shares for transit and non-motorized modes for access to/from existing San Francisco and Oakland ferry terminals are already high. The proposed project would take advantage of this high mode share in lowering auto dependence for the first mile/last mile trips in these cities. The proposed project would comply with the TOC Policy relative to vehicle parking and bicycle parking requirements, the development of the visitor-serving uses would increase the number of jobs and services located near the ferry terminal, and the project site would have connectivity to downtown Redwood City and other transit connections. Therefore, the proposed project would be consistent with MTC's Plan Bay Area 2050+ and TOC Policy. There would be no inconsistencies resulting in a direct physical impact on the environment. See Section 3.10, Land Use, of this Draft EIR for additional information.
C/CAG's San Mateo Countywide Transportation Plan 2040 and San Mateo County Transportation Authority's (SMCTA's) 2025-2029 Strategic Plan	
C/CAG's San Mateo Countywide Transportation Plan 2040 identifies the Redwood City Ferry Terminal Project as an RTP project and recognizes WETA's strategic plan goals for this terminal, including its ability to provide critical emergency response. The SMCTA Strategic Plan is funding the Preliminary Engineering and Environmental Phase for the ferry terminal and continues to support Ferry and Local Shuttles programs through Measure A funds.	The proposed project would implement an RTP project and enable critical emergency response, if needed. Therefore, the proposed project would be consistent with the Transportation Plan 2040 and the SMCTA Strategic Plan. There would be no inconsistencies resulting in a direct physical impact on the environment.
C/CAG's 2023 CMP, Transportation Demand Management Policy Implementation Guide	
C/CAG's 2023 CMP promotes the use of alternative transportation modes and ways to reduce future travel demand. The C/CAG TDM Policy requires new development projects that generate at least 100 Average Daily Trips (ADT) to complete a TDM Checklist committing them to reduce vehicle trips to the site by implementing TDM measures.	The proposed project would provide an alternative transportation method connecting Redwood City to San Francisco and Oakland. The proposed project would reduce travel, and, as a result, some congestion on US 101 by shifting single-vehicle occupancy to ferry mode. The proposed project would provide on-site bicycle parking facilities, an on-site transit stop, and improved bicycle and pedestrian access to the ferry terminal. As per the C/CAG TDM policy, these types of access improvements could reduce the proposed project's auto dependence by an additional five to twelve (5-12) percent compared to the conditions without these access improvements, consistent with the CMP. Through a mixed-use development, the proposed project would reduce up to 4.2 percent of weekday daily trips from visitor-serving uses through internal capture, which is also consistent with the CMP. Therefore, the proposed project would be consistent with C/CAG's 2023 CMP and TDM Policy. There would be no inconsistencies resulting in a direct physical impact on the environment.

Plan, Program, Ordinance, or Policy	Proposed Project Consistency
Redwood City 2010 General Plan, 2018 Transportation Plan (RWCmoves), 2022 Walk Bike Thrive Plan, Zoning Code and Ordinances, and 2018 Transportation Demand Management Program	
The General Plan promotes the development of a ferry terminal and expanded shuttle service, views the Seaport Corridor as connecting the proposed ferry with employment concentrations, anticipates that the ferry service would provide an environmentally sustainable and pleasant alternative to car commutes, and calls for new development to provide adequate emergency vehicle access and secure evacuation routes. RWCmoves identifies a commuter ferry service as a signature project and improvements on the Seaport Boulevard multi-use path and Bay Trail gap closure, sets a non-driving mode share goal of over 50 percent of all trips by 2040, and supports mixed-use development. The Walk Bike Thrive Plan includes a project to implement Seaport Boulevard path improvements for bike and pedestrian safety. The Zoning Code includes parking requirements for the visitor-serving uses. A General Commercial (CG) zone would allow development of visitor-serving uses on the project site. The TDMt Program applies a threshold for the preparation of a Site TDMt Plan. The Program's policies require the developer to meet any applicable TDMt program and ordinance requirements.	The proposed project would provide an attractive and convenient transportation alternative as identified in the City's General Plan, especially to employment concentrations along Seaport Boulevard, the Port, Downtown, and Caltrain Station. The proposed project would provide an environmentally sustainable and pleasant alternative to car commutes, with the added benefit of establishing a water-based emergency evacuation route in the event of a disaster. The proposed project would enhance the existing transit and non-motorized facilities. Further, as evidenced by the past ferry terminal implementations of WETA in a suburban context, such as Richmond and Vallejo ferry terminals, ferry user preferences seen in WETA surveys, and the ease and convenience of taking a bike on ferry, transit, and non-motorized modes are expected to form a substantial share of the access modes for ferry trips, which is consistent with the City's RWCmoves, Walk Bike Thrive Plan, and Transportation Demand Management Program. The precise mix of visitor-serving uses and square footage is unknown and would be developed during future site planning. Through a mixed-use development, the proposed project would manage to reduce up to 4.2 percent of weekday daily trips from visitor-serving uses through internal capture, which is also consistent with the City's plans. The access improvements planned under the proposed project would address a gap in the pedestrian/bicycle networks between the project site and the planned US 101/ SR 84 (Woodside Road) Interchange improvement project around the Seaport Boulevard/Blomquist Street intersection. Currently, there is an existing multi-use path along Seaport Boulevard between the entrance to the Pacific Shores Center and US 101. The multi-use path is identified in Redwood City adopted plans, RWCmoves, and the Redwood City Walk Bike Thrive Plan for improvements such as widening, repaving, enhanced lighting, etc. to meet the needs of future visitors to the ferry terminal area. The proposed project includes a proposed zone change to General Commercial (CG) which would allow development of the visitor-serving uses, as well as the ferry terminal. Therefore, the proposed project would be consistent with the General Plan, RWCmoves, the Walk Bike Thrive Plan, the Zoning Code, and TDMt Program. There would be no inconsistencies resulting in a direct physical impact on the environment.

Sources: California State Transportation Agency (CalSTA). February 2021. California Transportation Plan 2050. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf; California Air Resources Board (CARB). December 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Available: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf; Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com); Water Emergency Transportation Authority (WETA). 2016. 2016 Strategic Plan. Available: https://newspack-berkeleyside-cityside.s3.amazonaws.com/wp-content/uploads/2019/03/WETAStrategicPlanFinal.pdf; MTC and Association of Bay Area Governments (ABAG). March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb; Metropolitan Transportation Commission (MTC). October 2024. MTC's Transit-Oriented Communities Policy - Overview. Available: https://mtc.ca.gov/sites/default/files/documents/2024-10/MTC_TOC_Policy_Overview_October_2024.pdf; City/County Association of Governments of San Mateo County (C/CAG). February 2017. San Mateo Countywide Transportation Plan 2040. Available: https://ccag.ca.gov/wp-content/uploads/2014/05/SMCTP-2040-FINAL_.pdf; San Mateo County Transportation Authority (SMCTA). No Date. 2025-2029 Strategic Plan. Available: https://www.smcta.com/media/StrategicPlan2025-2029; City/County Association of Governments of San Mateo County (C/CAG). October 2023. 2023 San Mateo County Congestion Management Program (CMP). Available: https://ccag.ca.gov/wp-content/uploads/2024/02/CCAGCMP2023Final-wAppendix.pdf; City

of Redwood City. October 11, 2010. General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/policy-initiatives/general-plan-precise-plans/general-plan; City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan; City of Redwood City. June 2022. RWC Walk Bike Thrive. Prepared by Fehr and Peers and Eisen Letunic. Available: https://www.redwoodcity.org/home/showpublisheddocument/25615/638016840641870000; City of Redwood City. Municipal Code. Available: https://library.municode.com/ca/redwood_city/codes/city_code; City of Redwood City. July 2018. RWCmoves, Appendix E – Redwood City Transportation Demand Management Program. Available: https://rwcmoves.com/wp-content/uploads/2018/07/RWCmoves_AppendixE_TDM-Plan_20180710_3.pdf; City of Redwood City. Municipal Code, Chapter 48: Transportation Demand Management, Codified by Ord. No. 2503, § 1, 1-10-22. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH48TRDEMA.

Key: C/CAG = City/County Association of Governments; CalSTA = California State Transportation Agency; CARB = California Air Resources Board; CMP = Congestion Management Program; GHG = Greenhouse Gas; MTC = Metropolitan Transportation Commission; RTP = Regional Transportation Plan; SMCTA = San Mateo County Transportation Authority; TDM = Travel Demand Model; TOC = Transit-Oriented Communities; VMT = Vehicle Miles Traveled; and WETA = Water Emergency Transportation Authority.

3.14.5.1.1.2 Visitor-Serving Uses

During construction of the visitor-serving uses, any work in the right-of-way would require an encroachment permit and traffic control plan and would be coordinated with Pacific Shores Center management, the City, and local emergency service providers, as discussed previously and in **Section 3.14.5.4**. The traffic control plan would include measures to maintain safe travel for vehicles, bicycles, and pedestrians, and ensure continued emergency access during construction. There would be an increase in truck traffic during construction; however, the construction contractor would notify the Pacific Shores Center property owner and coordinate with the Port relative to ferry terminal access. Further, the Class I bicycle trail and sidewalk along Seaport Boulevard would not be obstructed or rerouted due to construction. Therefore, because of compliance with requirements and coordination with stakeholders, construction of the visitor-serving uses would not conflict with a program, plan, ordinance, or policy addressing the circulation system. There would be no impact.

As shown in **Table 3.14-7**, the visitor-serving uses would generate 4,310 person trips in 2040, on a weekday daily basis. As shown in **Table 3.14-8**, in 2040 weekday AM peak hour and PM peak hour, the project travel volume would be 288 and 300 vehicle trips, respectively. Although the visitor-serving uses would increase visitors and generate new trips to the project site, the visitor-serving uses would comply with existing programs, plans, ordinances, and policies addressing circulation, including the Redwood City Municipal Code and other regulations regarding parking demand, access, and connectivity.

Within the project site, access to the visitor-serving uses would be via the one-way one-lane road that travels counter-clockwise around the ferry terminal parking lot. The precise location and design of entrances and exits to the visitor-serving uses would be determined during future site planning.

Parking for the visitor-serving uses would be provided on the visitor-serving uses portion of the project site. This would include parking on the ground floor of the hotel and may also include surface parking and/or shared parking agreements as allowed per Section 30.5 of the Zoning Code. The precise number of parking spaces for the visitor-serving uses would be determined at the time specific development is proposed. The number of spaces would comply with City parking requirements but would not exceed four spaces per 1,000 square feet of commercial uses in compliance with the TOC Policy as discussed in greater detail in Section 3.10, Land Use, of this Draft EIR.[80]

Bicycle parking for the visitor-serving uses would be provided in compliance with the TOC Policy and City's Bicycle Parking Design Guidelines[81] for long-term (secured) and short-term (unsecured) spaces per proposed land use.

Implementation of the visitor-serving uses would be consistent with plans, ordinances, and policies addressing the circulation system. The visitor-serving uses would comply with and help to satisfy the goals and policies of several plans, ordinances, and policies that address circulation, as shown in **Table 3.14-9**. As addressed in greater detail for the entire project in **Section 3.14.5.1.1.3**, this includes consistency with the Municipal Code and TOC Policy. Therefore, operation of the visitor-serving uses would not conflict

[80] Metropolitan Transportation Commission (MTC). October 2024. MTC's Transit-Oriented Communities Policy - Overview. Available: https://mtc.ca.gov/sites/default/files/documents/2024-10/MTC_TOC_Policy_Overview_October_2024.pdf.

[81] City of Redwood City. June 2024. Bicycle Parking Design Guidelines. Available: https://www.redwoodcity.org/home/showpublisheddocument/29028/638623564866770000.

with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There would be no impact.

3.14.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the proposed project would result in temporary lane closures. However, construction that occurs within the right-of-way would require an encroachment permit from the City, and would include a traffic control plan and coordination with Pacific Shores Center management, the City, and local emergency service providers. Thus, construction of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and there would be no impact.

The Transportation Study Report estimated the end-to-end "drive alone" trips avoided due to ferry service, "first mile/last mile" trips added due to ferry service, and trips added due to visitor-serving uses, in terms of persons (total for all modes) and motorized vehicles (auto mode only),[82] as shown in **Table 3.14-7** and **Table 3.14-8**, respectively. Person trips are reported on annual, weekday daily, weekend daily and special event day bases, while vehicle trips are reported on weekday daily, weekday AM peak hour, and weekday PM peak hour bases.

There would be no net regional change in person trips due to the proposed ferry terminal. The avoided person trips would have moved directly between Redwood City and the cities of San Francisco and Oakland under the no project conditions, which would become the "first mile" and "last mile" trips to the proposed ferry terminal and at the San Francisco and Oakland ferry terminals under the proposed project conditions. Considering the travel volume generated at the project site only, weekday daily travel volume would be higher than its weekend value under both the ferry terminal component and the full project. The weekend daily travel volume generated by visitor-serving uses, on a standalone basis, would be slightly higher than its weekday value.

Under the full project, the weekday daily travel volume would be 5,940 person trips in 2023, increasing to 8,380 person trips by 2040. In 2023, weekday AM peak hour and PM peak hour project travel volume would be 508 and 529 vehicle trips, respectively. By 2040, these volumes could reach up to 795 and 831 vehicle trips, respectively.

Due to counting the "first mile" and "last mile" vehicle trips at origin and destination ferry terminals individually, and due to the auto mode share differences between the without project and proposed project conditions and across the ferry terminals under the proposed project conditions, the net change in vehicle trips is positive, meaning vehicle trips would increase by the approximate amounts forecasted in **Table 3.14-8**.

Although the proposed project would increase visitors and generate new trips to the project site, the proposed project would improve circulation patterns through roadway improvements and development of the 9.2-acre project site with the ferry terminal and visitor-serving uses. The proposed project would construct a ferry terminal and supportive infrastructure, including a Class I bicycle trail and ADA-compliant sidewalk, thereby adding regional capacity to the transportation network, reducing VMT, and lowering

[82] Autos carry a portion of the person trips and include drive alone personal car, kiss-and-ride, carpool, taxi, transportation network company (TNC) vehicles, transit, and employer shuttle. The remaining portion of the person trips are carried by pedestrian and bicycle modes.

automobile dependence. The proposed project would comply with requirements for circulation improvements such as meeting ADA accessibility requirements, including parking and sidewalk widths and gradients,[83,84] and City Municipal Code (Chapter 29, Streets, Sidewalks and Work in or Use of City Right of Way) and Engineering standards (Volume II, Parts A, C, and T; and Volume III, Parts III, IV, and VIII). Additionally, the proposed project would comply with and help to satisfy the goals and policies of several plans, ordinances, and policies that address circulation, as shown in **Table 3.14-9**. These policies are discussed in further detail in **Section 3.14.3.1**, above.

As described above, operation of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and there would be no impact.

3.14.5.1.2 Mitigation Measures

No mitigation is required for construction or operations.

3.14.5.1.3 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. There would be no impact for construction and operations.

3.14.5.2 Impact 3.14-2

Impact 3.14-2: Would the proposed project conflict or be inconsistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM:

- **If a land use change exceeds countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM; or**
- **If a transportation project would result in an increase in per capita VMT.**

3.14.5.2.1 Construction and Operations

3.14.5.2.1.1 Ferry Terminal

Operation of the ferry terminal would result in a reduction of vehicle miles on an annual basis (38,980 vehicle miles on a weekday daily basis) in 2023 across the San Francisco Bay Area region; this would increase to a reduction of about 30.7 million vehicle miles on an annual basis (101,520 vehicle miles on a weekday daily basis) by 2040.

The "first mile/last mile" trips added to access routes to and from the ferry terminals are shorter in trip length on average compared to end-to-end "drive alone" trips avoided due to ferry service. As a result, there would be a reduction in weekday daily VMT and per capita VMT levels in the San Francisco Bay Area Region TAZs in 2023 and 2040 due to operation of the ferry terminal. As shown in **Table 3.14-10**, weekday daily VMT in the San Francisco Bay Area Region TAZs level would drop by 38,980 vehicle miles in 2023 and up to 101,520 vehicle miles by 2040 with operation of the ferry terminal. Compared to the background

[83] U.S. Department of Justice, Civil Rights Division. No Date. Americans with Disabilities Act (ADA) - Accessible Parking Spaces webpage. Available: https://www.ada.gov/topics/parking/. Accessed August 24, 2024.

[84] U.S. Department of Justice, Civil Rights Division. September 2010. 2010 ADA Standards for Accessible Design, Chapter 4. Available: https://www.ada.gov/law-and-regs/design-standards/2010-stds/#403-walking-surfaces. Accessed December 16, 2025.

VMT, this is an approximately 0.010 percent and 0.021 percent reduction in VMT across the San Francisco Bay Area region in 2023 and 2040, respectively.

Table 3.14-10 Proposed Project Weekday Daily Vehicle Miles Traveled

Trip Type	Redwood City TAZs Weekday Daily VMT		San Mateo County TAZs Weekday Daily VMT		San Francisco Bay Area Region TAZs Weekday Daily VMT	
	2023	2040	2023	2040	2023	2040
Ferry Terminal Component						
End-to-End "Drive Alone" Trips Avoided[1]	-3,420	-8,550	-29,320	-72,090	-47,780	-124,040
Redwood Ferry Terminal "First Mile/Last Mile" Trips Added	5,530	14,410	5,790	14,930	5,790	14,930
Oakland Ferry Terminal "First Mile/Last Mile" Trips Added	0	0	0	0	2,170	5,680
San Francisco Ferry Terminal "First Mile/Last Mile" Trips Added	0	0	0	0	840	1,910
Summary:						
Net Trips To/From Project Site	5,530	14,410	5,790	14,930	5,790	14,930
Net Trips Avoided To/From Project Site	-3,420	-8,550	-29,320	-72,090	-44,770	-116,450
Sub-Total	**2,110**	**5,860**	**-23,530**	**-57,160**	**-38,980**	**-101,520**
Visitor-Serving Uses Component						
Hotel Trips Added	11,890	11,910	12,300	12,240	12,300	12,240
Office Trips Added	850	850	880	870	880	870
Restaurant Trips Added	15,910	15,930	16,460	16,380	16,460	16,380
Sub-Total	**28,650**	**28,690**	**29,640**	**29,490**	**29,640**	**29,490**
Proposed Project						
Summary:						
Net Trips To/From Project Site	34,180	43,100	35,430	44,420	35,430	44,420
Net Trips Avoided To/From Project Site	-3,420	-8,550	-29,320	-72,090	-44,770	-116,450
Total	**30,760**	**34,550**	**6,110**	**-27,670**	**-9,340**	**-72,030**

Source: CDM Smith, 2024.
Note: [1] Trips that would not happen if the proposed project is implemented.
Key: TAZ = Transportation Analysis Zone; VMT = Vehicle Miles Traveled

As shown in **Table 3.14-11**, with operation of the ferry terminal, there would be a net reduction in VMT of -11,945,200 and -30,694,600 over the San Francisco Bay Area region in 2023 and 2040, respectively.

Table 3.14-11 Proposed Project Annual Vehicle Miles Traveled

Trip Type	Redwood City TAZs Annual VMT		San Mateo County Annual VMT		San Francisco Bay Area Region TAZs Annual VMT	
	2023	2040	2023	2040	2023	2040
Ferry Terminal Component						
End-to-End "Drive Alone" Trips Avoided [1]	-1,072,900	-2,640,100	-9,413,300	-22,832,300	-14,623,400	-37,532,000
Redwood Ferry Terminal "First Mile/Last Mile" Trips Added	1,733,300	4,516,600	1,814,800	4,679,600	1,814,800	4,679,600
Oakland Ferry Terminal "First Mile/Last Mile" Trips Added	0	0	0	0	566,000	1,481,600
San Francisco Ferry Terminal "First Mile/Last Mile" Trips Added	0	0	0	0	297,400	676,200
Summary:						
Net Trips To/From Project Site	1,733,300	4,516,600	1,814,800	4,679,600	1,814,800	4,679,600
Net Trips Avoided To/From Project Site	-1,072,900	-2,640,100	-9,413,300	-22,832,300	-13,760,000	-35,374,200
Sub-Total	**660,400**	**1,876,500**	**-7,598,500**	**-18,152,700**	**-11,945,200**	**-30,694,600**
Visitor-Serving Uses Component						
Hotel Trips Added	4,195,900	4,200,700	4,341,000	4,319,200	4,341,000	4,319,200
Office Trips Added	237,900	238,100	246,100	244,900	246,100	244,900
Restaurant Trips Added	6,423,300	6,430,500	6,645,300	6,612,000	6,645,300	6,612,000
Sub-Total	**10,857,100**	**10,869,300**	**11,232,400**	**11,176,100**	**11,232,400**	**11,176,100**
Proposed Project						
Summary:						
Net Trips To/From Project Site	12,590,400	15,385,900	13,047,200	15,855,700	13,047,200	15,855,700
Net Trips Avoided To/From Project Site	-1,072,900	-2,640,100	-9,413,300	-22,832,300	-13,760,000	-35,374,200
Total	**11,517,500**	**12,745,800**	**3,633,900**	**-6,976,600**	**-712,800**	**-19,518,500**

Source: CDM Smith, 2024.
Note: [1] Trips that would not happen if the proposed project is implemented.
Key: TAZs = Transportation Analysis Zones, VMT = Vehicle Miles Traveled

The per capita VMT thresholds and impacts evaluation results are shown in **Table 3.14-12** (baseline 2023 conditions), **Table 3.14-13** (2024 cumulative conditions) and in total in **Table 3.14-14**. As summarized in **Table 3.14-14**, at the San Francisco Bay Area Region TAZs level, per capita VMT would be reduced by approximately 23 miles in 2023 and by approximately 24 miles in 2040 for every person trip diverted from "drive alone" to ferry terminal due to the ferry terminal component. VMT per capita for the ferry terminal would be 1.3-1.5 VMT per capita for the years 2023 and 2040 within the Redwood City TAZs, respectively. While the City does not have specific VMT impact criteria for ferry terminal uses, the added VMT generated by the ferry terminal would be quite low and should not have an adverse impact on Citywide VMT. The impact would be less than significant.

As shown in **Table 3.14-12** and **Table 3.14-14**, the ferry terminal countywide per capita VMT in 2023 would decrease and be less than zero. Therefore, operation of the ferry terminal would be consistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM as it would not result in an increase in per capita VMT. The impact would be less than significant.

Table 3.14-12 Baseline (2023) Conditions Proposed Project Countywide Daily VMT Impacts and Their Significance

Project Component	Impact Component	Baseline Conditions Significance Criteria	Per Capita Metric by Project Sub Component	Current Level Countywide Per Capita VMT	Countywide Proposed Project (2023) Per Capita VMT	Countywide Impact Threshold	Baseline (2023) Conditions CEQA Evaluation Result
Ferry Terminal	Mode Shift from Auto to Ferry Mode (net effects shown)	Not defined in City's Transportation Analysis Manual		N/A	-14.9	N/A	Countywide per capita VMT is less than zero; therefore, less than significant impact
Visitor-Serving Uses	Hotel	A net increase in total countywide VMT per service population	Countywide total VMT per service population	32.0	6.9	32.0	Countywide per capita VMT is less than impact threshold for "Retail/Hotel" land use; therefore, less than significant impact
	Office	A project exceeds countywide home-based work VMT per employee minus 15 percent	Countywide home-based work VMT per employee	17.6	6.7	15.0	Countywide per capita VMT is less than impact threshold for "Office" land use; therefore, less than significant impact
	Restaurant	A net increase in total countywide VMT per service population	Countywide total VMT per service population	32.0	6.9	32.0	Countywide per capita VMT is less than impact threshold for "Retail/Hotel" land use; therefore, less than significant impact

Sources: California Department of Transportation (Caltrans). September 2020. Transportation Analysis under CEQA (TAC) - First Edition, Evaluating Transportation Impacts of State Highway System Projects. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf; and Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311118467370000; VMT Calculations.
Key: VMT = Vehicle Miles Traveled

Table 3.14-13 Cumulative (2040) Conditions Proposed Project Citywide Daily VMT Impacts and Their Significance

Cumulative (2040) Conditions Significance Criteria	Per Capita Metric	Citywide Cumulative (2040) Per Capita VMT	Citywide Proposed Project (2040) Per Capita VMT	Citywide Cumulative (2040) Impact Threshold	Cumulative (2040) Conditions CEQA Evaluation Result
No change to the City's per capita VMT	Citywide total VMT per service population	31.3	4.4	31.3	Citywide per capita VMT is less than impact threshold; therefore, less than significant impact

Sources: City of Redwood City. July 21, 2020. RWCmoves Appendix F, Redwood City Transportation Analysis Manual. Available: https://www.redwoodcity.org/home/showpublisheddocument/22106/637311118467370000; VMT Calculations.
Key: VMT = Vehicle Miles Traveled

Table 3.14-14 Proposed Project Daily Per Capita VMT

Trip Type	Redwood City TAZs Per Capita VMT		San Mateo County Per Capita VMT		San Francisco Bay Area Region TAZs Per Capita VMT	
	2023	2040	2023	2040	2023	2040
Ferry Terminal Component						
Trips due to Ferry Terminal	**1.3**	**1.5**	**-14.9**	**-14.4**	**-23.4**	**-24.4**
Visitor-Serving Uses Component						
Hotel Trips Added	6.6	6.7	6.9	6.8	6.9	6.8
Office Trips Added	6.4	6.4	6.7	6.6	6.7	6.6
Restaurant Trips Added	6.7	6.7	6.9	6.9	6.9	6.9
Trips due to Visitor-Serving Uses	**6.6**	**6.7**	**6.9**	**6.8**	**6.9**	**6.8**
Full Project						
All Trips	**5.4**	**4.4**	**1.7**	**-3.3**	**-0.3**	**-9.1**

Source: CDM Smith, 2024.
Key: TAZs = Transportation Analysis Zones, VMT = Vehicle Miles Traveled

3.14.5.2.1.2 Visitor-Serving Uses

As shown in **Table 3.14-11**, the visitor-serving uses would generate 11,232,400 and 11,176,100 VMT over the San Francisco Bay Area region in 2023 and 2040, respectively.

As shown in **Table 3.14-12** and **Table 3.14-14**, per capita VMT for trips added due to the visitor-serving uses component in 2023 and 2040 would be approximately 7 miles or less, which is 75.7 percent lower than the background per capita VMT of 28.8 miles for the San Francisco Bay Area region (refer to **Table 3.14-4**). As shown in **Table 3.14-12**, the visitor-serving uses would not exceed the countywide per capita VMT thresholds for the hotel-, restaurant-, and office-related land uses. Therefore, the visitor-serving uses would be consistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM as it would not exceed countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM. The impact would be less than significant.

3.14.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As shown in **Table 3.14-10**, weekday daily reductions in VMT of 9,340 vehicle miles in 2023 and 72,030 vehicle miles in 2040 in the San Francisco Bay region would be seen due to vehicle miles that would be added as part of the full project (e.g., trips associated with proposed visitor-serving uses). An increase in

VMT for trips added to/from the proposed project site is limited to San Mateo County TAZs, which are mostly within Redwood City TAZs as shown in **Table 3.14-10**. As shown in **Table 3.14-11**, under the proposed project, there would be a net annual reduction in VMT of -712,800 and -19,518,500 over the San Francisco Bay Area region in 2023 and 2040, respectively.

As shown in **Table 3.14-12**, the proposed project would not exceed the countywide per capita VMT thresholds. Therefore, the proposed project would be consistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM as the ferry terminal use would not result in an increase in per capita VMT and the visitor-serving uses would not exceed countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM. The impact would be less than significant.

3.14.5.2.2 Mitigation Measures

No mitigation is required for construction or operations.

3.14.5.2.3 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.14.5.3 Impact 3.14-3

Impact 3.14-3: Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

3.14.5.3.1 Construction

3.14.5.3.1.1 Ferry Terminal

Construction of the ferry terminal would result in a temporary increase in trips at the project site related to construction workers accessing the site, transport of equipment and materials, and hauling of fill to elevate the project site. The project site is located within the Port, which has regular truck traffic that accesses the Port via Seaport Boulevard to Frontage Road from US 101 and other surrounding roadways. The same roadways would be used for construction access to the project site. Frontage Road would be the primary access used for trucks and equipment, including hauling of fill material to raise the site elevation. The truck trips associated with construction of the proposed project would be consistent with current usage of the roadways and would not introduce an incompatible use.

When the existing railroad tracks along the project site are removed and construction of replacement tracks within the vacated portion of the Frontage Road commences, construction traffic would use the Seaport Boulevard loop road instead of Frontage Road to access the project site. The use of the loop road during construction would occur after the majority of construction materials, including fill to raise the project site, and construction equipment have already been transported to the project site, which would reduce the number and frequency of trucks using the loop road. Further, the construction contractor would provide notification to the Pacific Shores Center property owner about construction activities and use of the Seaport Boulevard loop road. Vehicles accessing the Pacific Shores Center would have the option of using the eastern leg of the loop road to avoid construction activities and traffic. Widening of the roadway to accommodate the Class I bicycle trail and sidewalk would also require coordination with the Pacific Shores Center property owner, compliance with the City's Engineering Standards, and an encroachment permit from the City as described in **Section 3.14.3.1.3**. The use of the Seaport Boulevard loop road for moving construction equipment and materials would be coordinated with the timing of

construction activities to widen the road between the Pacific Shores Center entrance and modifications to the intersection at the Pacific Shores Center entrance to accommodate the proposed sidewalk and bicycle trail.

Construction of the roadway improvements would occur consistent with the MUTCD and require coordination with the Pacific Shores Center property owner and approval of an encroachment permit from the City. The encroachment permit application would include preparation of a traffic control plan, as discussed in **Section 3.14.3.1**. As specified on the City's encroachment permit application,[85] the encroachment permit requires that the traffic control plan include measures for safe movement of vehicular, bicycle, and pedestrian traffic through and around construction operations. These measures may include signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Implementation of the traffic control plan would ensure that construction occurring within and along the roadway would not substantially increase hazards. Construction of the ferry terminal would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the impact would be less than significant.

3.14.5.3.1.2 Visitor-Serving Uses

With exception of utility connections and a connection to the ferry terminal parking lot, construction of the visitor-serving uses would be confined to the northern portion of the project site and would not increase hazards due to a geometric design feature. However, construction of the visitor-serving uses would result in a temporary increase in trips at the project site related to construction workers accessing the site, off-site hauling of demolition debris (e.g., removal of landscaping materials and Shell Unloading Wharf), and transportation of materials and equipment. While the project site is located within the Port, which already has regular truck traffic that accesses the Port via Seaport Boulevard to Frontage Road from US 101 and other surrounding roadways, it is assumed that construction of the visitor-serving uses would occur after the vacation of Frontage Road. Therefore, construction traffic would use the Seaport Boulevard loop road to access the project site. While the amount of truck traffic would increase during construction, it would not be a new or an incompatible use. The construction contractor would provide notification to the Pacific Shores Center property owner and coordinate with the Port relative to ferry terminal access on the loop road and within the project site. The Class I bicycle trail and sidewalk along the Seaport Boulevard loop road would already be in place, and would not be obstructed or rerouted due to construction, so bicyclists and pedestrians would have off-street access. Construction traffic would not result in an incompatible use that could substantially increase hazards on this roadway.

Work that occurs within the roadway, such as establishment of a connection to the existing sewer line, would require coordination with the Pacific Shores Center property owner and approval of an encroachment permit from the City. The encroachment permit would include preparation of a traffic control plan, as discussed in **Section 3.14.3.1**. The traffic control plan would also be required to include measures for safe movement of vehicular, bicycle, and pedestrian traffic through and around construction operations, that may include signage, construction barriers, and supervision by safety and security personnel. Implementation of the traffic control plan would ensure that any construction occurring within and along the roadway would not substantially increase hazards. Construction of the visitor-serving uses

[85] City of Redwood City Community Development Department. No Date. Encroachment Permit Application. Available: https://www.redwoodcity.org/home/showpublisheddocument/28191/638458427942630000.

would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the impact would be less than significant.

3.14.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, construction of the proposed project would involve workers accessing the site, hauling, transportation of materials and equipment, and work within the right-of-way on local roadways. The project site is located within the Port, which has regular truck traffic that accesses the Port via Seaport Boulevard to Frontage Road from US 101 and other surrounding roadways. Access to the site would initially be via Frontage Road and then via Seaport Boulevard once the portion of the Frontage Road along the project site is vacated. Truck trips and worker trips would be consistent with current usage of the roadways. Further, the construction contractor would notify the Pacific Shores Center property owner about construction activities and use of the Seaport Boulevard loop road. Vehicles accessing the Pacific Shores Center would also have the option of using the eastern leg of the loop road to avoid construction activities and traffic. During construction of the visitor-serving uses, pedestrians and bicyclists could use the off-street Class I bicycle trail and sidewalk constructed with the ferry terminal. Therefore, construction truck traffic would not result in an incompatible use that could substantially increase hazards on this roadway.

Construction of the roadway improvements would require coordination with the Pacific Shores Center property owner and approval of an encroachment permit from the City, which would include preparation of a traffic control plan as discussed above. Implementation of the traffic control plan would ensure that construction occurring within and along the roadway would not substantially increase hazards.

Construction of the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the impact would be less than significant.

3.14.5.3.2 Operations

3.14.5.3.2.1 Ferry Terminal

The access improvements that would occur as part the ferry terminal component of the proposed project include widening of the left leg of the Pacific Shores Center loop road for a new sidewalk and Class I bicycle trail, modifications of the intersection and roadway geometry at the Pacific Shores Center entrance to accommodate the proposed sidewalk and bicycle trail and connection to the existing trail to the south, and a new access road at the ferry terminal site entrance. All proposed roadway changes would be implemented in accordance with the City's Engineering Standards Volume III: Design Criteria for street design criteria (including roadway widths, alignment, gradient, turning radius for emergency vehicles, and designs for sidewalks) and would be subject to City review and approval. New marked crosswalks and a bicycle crossing would be provided at the ferry terminal access road and the existing crosswalk at the entrance to the Pacific Shores Center would be modified. These crossings would be designed to applicable standards and best practices, including ADA Standards for Accessible Design (Section 406)[86] and the MUTCD (Chapter 3B),[87] and would include elements such as high visibility crosswalk markings. The

[86] U.S. Department of Justice, Civil Rights Division. September 2010. 2010 ADA Standards for Accessible Design, Chapter 4. Available: https://www.ada.gov/law-and-regs/design-standards/2010-stds/#403-walking-surfaces. Accessed December 16, 2025.

[87] California Department of Transportation (Caltrans). 2026. California Manual on Uniform Traffic Control Devices (MUTCD) 2026. Available: https://dot.ca.gov/programs/safety-programs/camutcd.

intersection improvements at the Pacific Shores Center entrance would be designed to accommodate future signalization at the intersection.

Further, the off-street bicycle and pedestrian improvements would create safer and more favorable conditions for bicycling and walking. Ferry terminal users, waterfront park users, and Pacific Shores Center employees would be able to utilize the sidewalks and bicycle trails to connect to the Bay Trail, the waterfront park, and Seaport Boulevard. Therefore, the roadway modifications would not create or increase hazards due to design features.

The ferry terminal improvements include raising the elevation of the 9.2-acre project site by seven feet to approximately 17-feet North American Vertical Datum (NAVD). The access road connecting to the Seaport Boulevard loop road would be sloped to provide a gradual grade change from the existing roadway elevation to the project site in compliance with standards for street gradients identified in the City's Engineering Standards Volume III, Part 3 Street Design Criteria, Section C, Gradients. Therefore, the elevation of the project site would not increase hazards due to geometric design.

Operation of the ferry terminal would result in a reduction of approximately 12.0 million vehicle miles on an annual basis (38,980 vehicle miles on a weekday daily basis) across the San Francisco Bay Area region; this reduction would mostly occur on the freeway system connecting Redwood City to San Francisco and Oakland. Added VMT on the first mile/last mile access routes to/from ferry terminals, which is much smaller compared to the avoided end-to-end VMT, would have a small increase in non-freeway crash exposure (refer to Section 4.2.1 of the Transportation Study Report). Overall, there would be a net decrease in the numbers of crashes on the regional and local roadway network. Through multimodal access (i.e., providing alternatives to driving) and separation of bike and pedestrian movements from auto traffic on Seaport Boulevard loop, the ferry terminal would improve safety in the project area.

The additional first/last mile VMT that would occur in the project area would not exceed the capacity of the existing roadways under current conditions or add any significant hazards to pedestrians or bicyclists. Projected traffic growth could result in delays at the Pacific Shores entrance, which is currently controlled by an all-way stop. As identified in the Project Description (Chapter 2 of this Draft EIR), the Port may install a traffic signal at this intersection by 2040. Installation of a future traffic signal would comply with the City's Engineering Standards and be subject to City approval.

As previously discussed, marked crosswalks, new sidewalks and Class I bicycle trail designed to applicable standards would reduce hazards by improving the bicycle and pedestrian infrastructure within the project site and along Seaport Boulevard.

At the project site, the one-way loop road around the ferry terminal parking lot, designated pedestrian and bicycle facilities, and curb and lane markings and signage compliant with City Engineering Standards would limit the safety conflicts during circulation at the project site. As discussed in Section 4.2.1 of the Transportation Study Report (Appendix H), a vehicle turn analysis was performed on the proposed site layout for a 40-foot bus to ensure that transit and shuttle buses, trucks, and emergency vehicles can safely enter and exit the proposed project site.

The relocated railroad tracks would be constructed within a portion of Frontage Road that would be vacated. The portion of Frontage Road that would be vacated is gated and not currently used. The tracks would be parallel to existing tracks and would not cross any public streets. The roadway vacation and

replacement rail tracks would not affect traffic on Frontage Road and would not substantially increase hazards due to a geometric design feature or incompatible uses.

As described above, access improvements and modifications associated with the ferry terminal would meet City Engineering Standards and would improve safety for pedestrians and bicyclists. Operation of the ferry terminal would not substantially increase hazards due to a geometric design feature or incompatible uses; the impact would be less than significant.

3.14.5.3.2.2 Visitor-Serving Uses

As discussed in Chapter 2, Project Description, vehicles accessing the visitor-serving uses would use the ferry terminal access road from Seaport Boulevard and then enter the one-way loop road surrounding the ferry terminal parking lot to reach the vehicle connections to the visitor-serving uses parking and/or loading area. The visitor-serving connection to the one-way loop road and interior driveways and accessways would be implemented in accordance with the City's Engineering Standards Volume III: Design Criteria for street design criteria (including roadway widths, alignment, gradient, turning radius for emergency vehicles, and designs for sidewalks), subject to City review and approval. Additionally, pedestrian and bicycle connections to the visitor-serving uses would be established to connect to the sidewalks, bicycle path, and Bay Trail connection implemented with the ferry terminal. The new connections would be designed and constructed in accordance with the City's Engineering Standards to establish safe conditions for bicycling and walking in and around the project site.

It is assumed that parking for the visitor-serving uses would be provided on the ground floor of the hotel, but some surface parking may also be provided. The parking lot would be designed according to the criteria for parking lots and off-street parking as stated in Part IV of Volume III: Design Criteria of the City's Engineering Standards and City Zoning Codes. Adherence to these standards would negate any potential geometric design hazards. It is also assumed that a portion of the parking would be shared parking between the ferry terminal and visitor-serving uses per Section 30.5 of the Redwood City Zoning Code. Pedestrian and bicycle access routes around and within the site, designed in accordance with the City's Engineering Standards would provide safe access from the ferry terminal parking lot, ferry terminal, the visitor-serving uses, and around the perimeter of the project site. Bicycle parking would be provided in compliance with the City's Bicycle Parking Zoning Codes and Bicycle Parking Design Guidelines.[88] Vehicle and non-vehicular site access and connections, including parking facilities, would meet City Engineering Standards and other design requirements such as Zoning Code parking requirements. As such, operation of the visitor-serving uses would not substantially increase hazards due to a geometric design feature or incompatible uses; the impact would be less than significant.

3.14.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Access improvements and site modifications that would occur for the proposed would be implemented in accordance with the City's Engineering Standards and would be subject to City review and approval. This would include implementation of pedestrian and bicycle improvements such as new marked crosswalks and a new sidewalk and Class I bicycle trail designed to applicable standards that would separate bicycle and pedestrian movements from motorized vehicle traffic on the Seaport Boulevard loop road. Therefore, the access road, parking lot, and Seaport Boulevard improvements would not create or

[88] City of Redwood City. June 2024. Bicycle Parking Design Guidelines. Available: https://www.redwoodcity.org/home/showpublisheddocument/29028/638623564866770000.

increase hazards due to design features and would improve bicycle and pedestrian safety. Other roadway modifications, including vacation of Frontage Road and the relocation of the railroad tracks, would not substantially increase hazards due to a geometric design feature or incompatible uses. Operation of the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses; the impact would be less than significant.

3.14.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.14.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.14.5.4 Impact 3.14-4

Impact 3.14-4: Would the proposed project result in inadequate emergency access or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

3.14.5.4.1 Construction

3.14.5.4.1.1 Ferry Terminal

Emergency access to the project site would be provided from Seaport Boulevard. Construction of the ferry terminal would result in temporary lane closures on Seaport Boulevard, which may impede emergency access. However, work within the right-of-way would occur in coordination with Pacific Shores Center management, the City, the Redwood City Fire Department, and the Redwood City Police Department. Work in the right-of-way would require approval of an encroachment permit from the City, which would include preparation of a traffic control plan and notification to affected emergency service providers, as discussed in **Section 3.14.3.1**. The encroachment permit also requires that the traffic control plan would include measures for safe movement of vehicular, bicycle, and pedestrian traffic through and around construction operations. These measures may include signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Implementation of the traffic control plan would, therefore, enable continued emergency service access.

Further, while construction activities would result in temporary access restrictions to areas under construction; as discussed in Section 3.12, Public Services, of this Draft EIR, construction would be conducted in compliance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites.

Figure 4.20-3 of the City's General Plan EIR displays evacuation routes in the City. Seaport Boulevard is currently not identified as an evacuation route.[89] Veterans Boulevard and the US 101/84 interchange to Woodside Road are the nearest evacuation routes to the project site. Construction activities of the ferry terminal may result in circulation changes on Seaport Boulevard. However, these changes would be

[89] City of Redwood City. November 2022. Housing, Built Environment, Public Safety, Building Community, Natural Resources & Environmental Justice Elements Update to the Redwood City General Plan: Draft Environmental Impact Report. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/environmental-documents/general-plan-eir.

temporary and limited and would still allow for evacuation in the event of an emergency. Construction activities would not obstruct or result in the closure of Veterans Boulevard or the US 101/84 interchange to Woodside Road. During an emergency, the County and City would enact evacuation measures as set forth in their respective EOP. Construction activities for the ferry terminal would not interfere with these measures during an emergency event. Additionally, the County's Genasys Protect App would be available to the public to track evacuation zones and receive direction on evacuation routes.

Therefore, construction of the ferry terminal would not result in inadequate emergency access, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would result in a temporary increase in trips at the project site, which may impede emergency access. However, pursuant to the California Vehicle Code requirements, construction vehicles would be required to yield right-of-way to any emergency vehicle using siren and redlight.

Temporary roadway lane closures would be needed to establish connections between new on-site utilities to the existing utility supply lines located in and along Seaport Boulevard. Construction in the right-of-way would occur in coordination with Pacific Shores Center management, the City, the Redwood City Fire Department, and the Redwood City Police Department. As discussed above with construction of the ferry terminal, work in the right-of-way would require an encroachment permit approved by the City, which would include preparation of a traffic control plan. Implementation of the traffic control plan and compliance with the California Vehicle Code would enable continued emergency service access. Construction activities would not obstruct or result in the closure of Veterans Boulevard or the US 101/84 interchange to Woodside Road which are the nearest identified evacuation routes to the project site, nor would construction activities interfere with emergency evacuation procedures set forth in the County and City EOP in the event of an emergency. Additionally, as discussed in Section 3.12, Public Services, construction would be conducted in compliance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites. Therefore, construction of the visitor-serving uses would not result in inadequate emergency access, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the proposed project would result in temporary lane closures on Seaport Boulevard, which may impede emergency access. However, construction that occurs within the right-of-way would require an encroachment permit from the City, and would include a traffic control plan and notification of construction activities to emergency service providers. Implementation of the traffic control plan and compliance with the California Vehicle Code would enable continued emergency service access. Additionally, construction would be conducted in compliance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites. Construction activities would not obstruct or result in the closure of Veterans Boulevard or the US 101/84 interchange to Woodside Road, nor interfere with emergency evacuation procedures set forth in the County and City EOP in the event of an emergency. Therefore, construction of the proposed project would not result in inadequate emergency access, nor would it impair implementation of or physically interfere

with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.2 Operations

3.14.5.4.2.1 Ferry Terminal

Emergency response vehicles would reach the project site from the access road connecting to the Seaport Boulevard loop road. The access road would have one lane in either direction for vehicles entering and exiting the project site and would comply with Chapter 5, Section 503 and Appendix D of the California Fire Code (see **Section 3.14.3.1.2**) and, therefore, meet emergency vehicle access and circulation requirements. Similarly, the roadway improvements along Seaport Boulevard and at the intersection at the entrance to the Pacific Shores Center would comply with the California Fire Code.

The relocated railroad tracks would be constructed within a portion of Frontage Road that is gated and not used; this portion of the roadway would be vacated under the proposed project. The tracks would not cross any public roads or otherwise affect emergency access. Vacation of this portion of the roadway would not reduce emergency access to the adjacent CEMEX property or otherwise affect emergency access or an evacuation route.

Roadway modifications include widening of the Seaport Boulevard loop road to accommodate a Class I bicycle trail and sidewalk and modifications to the intersection at the Pacific Shores Center entrance to accommodate the proposed sidewalk and bicycle trail and establish a connection to the existing trail to the south. A future traffic signal may be installed at this intersection by 2040 as discussed in Section 2.5.1.4 in Chapter 2, Project Description, of this Draft EIR. All roadway modifications would occur in accordance with Chapter 5, Section 503 and Appendix D of the California Fire Code, which would ensure accessibility for emergency responders.

The City and County maintain emergency response and evacuation plans[90,91] to minimize the potential for and the effects of a human-caused emergency or natural disaster. These response plans would be in place both during construction and operation of the proposed project. Seaport Boulevard would be used as an evacuation route from the project area if needed, to reach Veterans Boulevard and the US 101/84 interchange to Woodside Road, which are located approximately 2.1 miles to the south of the project site and are identified in the General Plan as the roadways in the area most frequently used for evacuation. The proposed project would not interfere with use of these roadways or other roadways for use as an evacuation route.

Further, the ferry terminal would be designed in compliance with City's Engineering Standards and California Fire Code to provide adequate access for emergency responders and egress for ferry terminal users and site visitors. Compliance with emergency access requirements would ensure operation of the ferry terminal would not interfere with an existing emergency response or emergency evacuation plan.

[90] County of San Mateo. May 22, 2015. County of San Mateo Emergency Operations Plan. Available: https://hsd.smcsheriff.com/sites/default/files/downloadables/1%20-%20Emergency%20Operations%20Plan.pdf.

[91] City of Redwood City. May 2023. City of Redwood City Emergency Operations Plan. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/8D.%20ATTACHMENT%20A%20%E2%80%93%20RESOLUTION%20ADOPTING%20THE%20REDWOOD%20CITY%20EMERGENCY%20OPERAT.pdf?meetingId=2429&documentType=Agenda&itemId=9167&publishId=14432&isSection=false.

The ferry terminal would also support WETA's legislative mandate to operate and coordinate emergency water transportation when regional transportation systems are severely disrupted. The ferry terminal would expand WETA's service network to the South San Franscico Bay that could support movement of survivors and/or transport of first responders and disaster service workers in or out of the proposed ferry terminal. The ferry service would provide an alternative form of transit that would be able to continue to operate in the event of a natural or human-made emergency event or catastrophe that disables roads, other transit, bridges, or tunnels.

The ferry terminal would also support the Port's designation as a Federal Staging Area during any catastrophic event for the South San Francisco Bay region by increasing the capabilities to move people and supplies over water as result of the new terminal facility and ferry routes. The ferry terminal parking lot could also provide additional staging area to support FEMA operations, such as for emergency responder or emergency vehicle parking, a temporary communications center or hub, and/or for collecting and storing supplies and equipment should the need arise.

Because all roadway and site access modifications would comply with emergency access requirements and the ferry terminal would provide a new emergency response option in the event of an emergency, operation of the ferry terminal would not result in inadequate emergency access, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.2.2 Visitor-Serving Uses

As discussed in greater detail in Section 3.12, Public Services, of the Draft EIR, the visitor-serving uses would be built in conformance with the California Building Code and California Fire Code and reviewed by the Fire Department to ensure adequate emergency access, including adequate fire apparatus access to buildings and widths for on-site driveways and parking aisles. Emergency response vehicles would be able to access the visitor-serving uses from the access road connecting to the Seaport Boulevard loop road. The access road would have one lane in either direction for vehicles entering and exiting the project site and would be wide enough for emergency vehicle access and circulation. As discussed for the ferry terminal, the roadway improvements would comply with Section 503 and Appendix D of the California Fire Code (see **Section 3.14.3.1.2**) and therefore, would provide sufficient emergency access.

As discussed for the ferry terminal, the City and County EOPs maintain emergency response and evacuation plans to minimize the potential for and the effects of a human-caused emergency or natural disaster. Seaport Boulevard would be used as an evacuation route from the project area if needed, to reach Veterans Boulevard and the US 101/84 interchange to Woodside Road. Operation of the visitor-serving uses would not interfere with use of these roadways or other roadways for use as an evacuation route.

Further, the visitor-serving uses would be designed in compliance with the City's Engineering Standards and California Fire Code to provide adequate access for emergency responders and egress for site visitors. Compliance with emergency access requirements would ensure operation of the visitor-serving uses would not interfere with an existing emergency response or emergency evacuation plan.

As described for the ferry terminal, the ferry terminal and ferry service would support the Port's designation as a Federal Staging Area. The visitor-serving uses would not hinder this use and could provide

additional support for emergency responders should the need arise, such as food service, lodging, and additional parking or staging areas.

Because the visitor-serving uses would comply with emergency access requirements and would support the Port's designation as a Federal Staging Area in the event of an emergency event, the visitor-serving uses would not result in inadequate emergency access, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project would comply with the City's Engineering Standards (see **Section 3.14.3.1.3**) and, therefore, meet emergency vehicle access and circulation requirements. The proposed access improvements would ensure that adequate emergency access is available from Seaport Boulevard. The vacation of a portion of Frontage Road and relocated railroad tracks would not affect emergency access or evacuation.

All roadway improvements, project site access improvements, and new development implemented as part of the proposed project would be required to comply with the applicable State and local codes, including the California Building Code, California Fire Code, and the City's engineering standards, which would ensure that emergency access would be available for emergency responders.

The proposed project would be designed in compliance with the City's Engineering Standards to provide adequate access for emergency responders and egress for patrons and workers exiting the project area. The proposed project would also support WETA's legislative mandate to operate and coordinate emergency water transportation when regional land transportation systems are severely disrupted and the Port's designation as a Federal Staging Area during any catastrophic event for the South San Francisco Bay region. The proposed project would not interfere with use of roadways for use as an evacuation route, nor would it interfere with an existing emergency response or emergency evacuation plan. Additionally, the ferry service would provide an alternative form of transportation that could support movement of survivors and/or transport of first responders and disaster service workers and provide an alternative form of transit that would be able to continue to operate in an event that disables roads, other transit, bridges, or tunnels.

Because all roadway and site access modifications would comply with emergency access requirements and the proposed project would provide an additional transportation option in the event of an emergency event or evacuation, the proposed project would not result in inadequate emergency access, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; the impact would be less than significant.

3.14.5.4.3 Mitigation Measures

No mitigation is required for construction or operations.

3.14.5.4.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and for operations.

3.14.5.5 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact of the combined ferry terminal and visitor-serving uses development is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (including the ABAG Plan Bay Area 2050+[92] and the Redwood City General Plan,[93] as described in Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic context for assessing cumulative environmental impacts associated with transportation includes the City, San Mateo County, and San Francisco Bay Area Region. Any future development within the geographic scope of the City (i.e., the boundary of the City) would be required to meet all City regulations and plans to minimize impacts. The cumulative impacts analysis evaluates whether the regional growth projections from adopted plans, along with the proposed project, would result in significant cumulative impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system; conflicts or inconsistencies with the criteria for evaluating impacts identified in Redwood City's 2020 TAM; a substantial increase in hazards due to a geometric design feature or incompatible uses; and inadequate emergency access or impairment of an adopted emergency response plan or emergency evacuation plan.

The proposed project would result in transportation impacts by increasing first/last mile vehicle trips to the project site compared to existing conditions. However, the proposed project would construct improvements to the circulation network within the project area, including a ferry terminal and supportive infrastructure, an access road, a Class I bicycle trail and sidewalk, and an expansion of the Bay Trail. Additionally, the proposed project would comply with City parking requirements and bicycle parking requirements. The proposed project would provide a new transit option, reduce VMT, and reduce automobile dependence. The proposed project would support the goals and policies of the programs, plans, ordinances, and policies discussed in **Section 3.14.5.1.1.3**. Therefore, implementation of the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system.

As discussed in Section 3.0.4.1 of the Introduction to Chapter 3, the Redwood City General Plan forecasts a nearly 20 percent population growth for the City and a nearly 19 percent population growth for San Mateo County between 2020 and 2040. This regional population growth would spur new development and increase trips within the circulation network. However, development within the City would comply with existing City programs, plans, ordinances, and policies addressing circulation, including the Redwood City Municipal Code and other regulations regarding parking demand, access, and connectivity. Development within San Mateo County and the San Francisco Bay Area Region would be required to

[92] Metropolitan Transportation Commission and Association of Bay Area Governments. March 6, 2026. Final Plan Bay Area 2050+ San Mateo County Factsheet. Available: https://planbayarea.org/sites/default/files/documents/pba50_plus_san_mateo_county_fact_sheet.pdf?cb=7d7bef44https.

[93] City of Redwood City. 2023-2031 Housing Element, City of Redwood City. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/28334/638484500539830000.

support the transportation-related goals and strategies of the Plan Bay Area 2050+ and C/CAG's Countywide Transportation Plan 2040. Additionally, the planned reconfiguration of the US 101/SR 84 interchange under future conditions as shown in **Figure 3.14-1** would improve circulation within the project area. The forecasted growth, coupled with the proposed project, would therefore not result in significant impacts related to compliance with programs, plans, ordinances, or policies addressing the circulation network. The proposed project's incremental contribution to this cumulative impact would not be cumulatively considerable.

As shown in **Table 3.14-11** the proposed project would result in a net reduction in VMT over the San Francisco Bay Area region in 2023 and 2040. As shown in **Table 3.14-12**, the proposed project would not exceed the countywide per capita VMT thresholds. Additionally, the proposed project qualifies as a Tier 4 level of transit service and would be consistent with MTC's TOC Policy. Therefore, implementation of the proposed project would be consistent with the criteria for evaluating impacts identified in Redwood City's 2020 TAM as the ferry terminal use would not result in an increase in per capita VMT and the visitor-serving uses would not exceed countywide per capita VMT thresholds for land use types identified in Redwood City's 2020 TAM. As population increases, so does the demand for transportation, which in turn leads to an increase in VMT. Therefore, regional population growth would increase VMT within the regional circulation network.[94] However, as previously discussed, development within San Mateo County and the San Francisco Bay Area Region would be required to support the transportation-related goals and strategies of the Plan Bay Area 2050+ and C/CAG's Countywide Transportation Plan 2040, which include reducing VMT by incentivizing growth in proximity to transit and alternative modes of transportation. The forecasted growth coupled with the proposed project would therefore not result in cumulatively significant impacts related to consistency with the criteria for evaluating impacts identified in Redwood City's 2020 TAM. The proposed project's incremental contribution to this cumulative impact would not be cumulatively considerable.

The proposed project would result in transportation impacts during construction due to the increase in trips at the project site. Construction of roadway improvements would require approval of an encroachment permit from the City, that would include the preparation and implementation of a traffic control plan, which would reduce potential roadway conflicts and therefore reduce roadway hazards. Access improvements and site modifications would be implemented in accordance with the City's Engineering Standards and would be subject to City review and approval. During operations, the proposed project would reduce annual VMT in the San Francisco Bay Area region, thereby improving safety on regional freeways. Operation of the proposed project would reduce hazards by improving all modes of transportation on the project site and separating the pedestrian and bicycle traffic from vehicular traffic. Therefore, implementation of the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. Regional population growth would increase VMT within the circulation network which could result in roadway expansion and an increase in roadway hazards.[95] However, as previously discussed, development within San Mateo County and the San Francisco Bay Area

[94] US Department of Transportation, Federal Highway Administration. September 2025. 2025 FHWA Forecasts of Vehicle Miles Traveled (VMT). Available: 2025 FHWA Forecasts of Vehicle Miles Traveled (VMT) - Policy | Federal Highway Administration. Accessed December 22, 2025.

[95] US Department of Transportation, Federal Highway Administration. September 2025. 2025 FHWA Forecasts of Vehicle Miles Traveled (VMT). Available: 2025 FHWA Forecasts of Vehicle Miles Traveled (VMT) - Policy | Federal Highway Administration. Accessed December 22, 2025.

Region would be required to support the goals and strategies of the Plan Bay Area 2050+ and C/CAG's Countywide Transportation Plan 2040 to reduce VMT. Roadway development and expansions would be required to adhere to the requirements such as the California Highway Design Manual and other applicable regional and local standards such as the local jurisdiction's municipal codes and engineering standards. The forecasted growth coupled with the proposed project would therefore not result in cumulatively significant impacts related to substantially increasing hazards due to a geometric design feature or incompatible uses. The proposed project's incremental contribution to this cumulative impact would not be cumulatively considerable.

The City-approved encroachment permit, including the preparation and implementation of the traffic control plan that would provide for notification of construction activities to emergency service providers, as well as compliance with the California Vehicle Code, would enable continued emergency service access during project construction. Additionally, project construction would be conducted in compliance with Chapter 33 Section 3310 of the California Fire Code, which requires approved vehicle access for firefighting to all construction sites. During operations, access to the proposed project would meet and comply with the City's Engineering Standards (Part III: Street Design Criteria of Volume III: Design Criteria, see **Section 3.14.3.1.3**), and State and local codes, including the California Building Code and California Fire Code, which would ensure that emergency access would be available for emergency responders. Therefore, implementation of the proposed project would not result in inadequate emergency access. Seaport Boulevard would be used as an evacuation route from the project area if needed, to reach Veterans Boulevard and the US 101/84 interchange to Woodside Road, which are identified in the General Plan as the roadways in the area most frequently used for evacuation. The proposed project would not interfere with use of these or other roadways as an evacuation route. Adherence to City and County emergency response and evacuation plans would minimize the potential for and the effects of a human-caused emergency or natural disaster. The proposed project would also support WETA's legislative mandate to operate and coordinate emergency water transportation when regional transportation systems are severely disrupted and expand WETA's service network to the South San Franscico Bay that could support movement of survivors and/or transport of first responders and disaster service workers in or out of the proposed ferry terminal. The ferry terminal would also support the Port's designation as a Federal Staging Area during any catastrophic event for the South San Francisco Bay region by increasing the capabilities to move people and supplies over water as result of the new terminal facilities and the active ferry routes. The ferry terminal parking lot could also serve as an additional location to support the Port's designation as a FEMA Federal Staging Area should the need arise. Therefore, the proposed project would not interfere with the implementation of an emergency evacuation plan, and the impact would be less than significant. Regional population growth would spur new development; all new development would be required to comply with applicable State and local codes, including the California Fire Code, to ensure emergency access during construction and operations. The forecasted growth coupled with the proposed project would therefore not result in significant cumulative impacts related to inadequate emergency access or evacuation plan implementation. The proposed project's incremental contribution to this cumulative impact would not be cumulatively considerable.

Therefore, the forecasted growth coupled with the proposed project would not result in significant cumulative impacts related to transportation. The proposed project's incremental contributions to these cumulative impacts would not be cumulatively considerable.

3.14.5.5.1 Mitigation Measures

No mitigation is required.

3.14.5.5.2 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. There would be no significant cumulative impacts related to transportation.

3.14.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to transportation associated with construction and operation of the proposed project.

Section 3.15
Utilities and Service Systems

3.15.1 Introduction

This section describes the regulatory framework and existing conditions in the project site related to utilities and service systems, and the impacts from implementation of the proposed project. For a summary of the environmental impacts described in this section, see Table ES-1 in the Executive Summary.

3.15.2 Methodology

The utilities analysis evaluates whether facilities that would provide services for the proposed project would have sufficient resources and/or capacity to accommodate project-related demands. The analysis assumes that new infrastructure would be required at the project site to serve the proposed project, the impacts associated with installation of which is a project component assessed throughout this Draft EIR. If there are additional inadequate off-site infrastructure or utilities services that would require upgrades or expansions, this analysis addresses whether there would be any additional physical impacts on the environment that have not already been addressed as part of the proposed project. Utilities and service systems considered as part of the analysis include above and underground electrical lines; storm drains; gas lines; water supply lines; sewer lines, and the type, size, and location of the infrastructure potentially impacted by the proposed project.

The analysis of impacts to utilities and services systems also evaluates the changes in demand on utilities that the proposed project would generate, then evaluates the consequences of the changes in demand based on existing facilities and whether facilities that would provide services to the proposed project would have sufficient resources and/or capacity to accommodate project-related increases in utility demand. The analysis considers increases in utility demand associated with the proposed project and existing natural resources, existing utility capacity, and consistency with existing regulations and plans for utilities.

3.15.3 Existing Conditions

3.15.3.1 Regulatory Setting

3.15.3.1.1 Federal

Clean Water Act

At the federal level, the primary regulations relating to water services are associated with water quality. The Clean Water Act (CWA) (33 United States Code [U.S.C.] Section 1251 et seq.) is the cornerstone of surface water quality protection in the United States. The CWA employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Under the CWA's National Pollutant Discharge Elimination System (NPDES) program, the U.S. Environmental Protection Agency (USEPA) regulates discharges of pollutants from municipal and industrial wastewater treatment plants, sewer collection systems, and stormwater discharges from industrial facilities and municipalities. The State

Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the Federal CWA.

The USEPA enforces requirements to ensure that industries pre-treat pollutants in their wastes in order to protect local sanitary sewers and wastewater treatment plants. Industrial discharges of metals, oil and grease, and other pollutants can interfere with the operation of local sanitary sewers and wastewater treatment plants, leading to the discharge of untreated or inadequately treated pollutants into local waterways.

NPDES permits establish discharge limits and conditions for discharges from municipal wastewater treatment facilities to waters of the United States, including municipal processes used to treat domestic wastewater, and provide a framework for establishing water quality and technology-based NPDES permit limits, and technology-based standards for discharges from municipal wastewater treatment facilities.

Safe Drinking Water Act of 1996

The Safe Drinking Water Act (SDWA) of 1996 is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the SDWA, the USEPA is required to set standards for drinking water quality and oversee all states, localities, and water suppliers that implement the standards. The SDWA applies to every public water system in the United States.

The SDWA requires the USEPA to establish National Primary Drinking Water Regulations (NPDWR) for contaminants that may cause adverse public health effects. The regulations include both mandatory requirements (Maximum Contaminant Levels and Treatment Techniques) and non-enforceable health goals (Maximum Contaminant Level Goals) for each included contaminant.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 U.S.C. Section 6901 et seq.) was enacted in 1976 to oversee proper management of solid and hazardous wastes, from their generation to ultimate disposal or destruction. Implementation of RCRA has largely been delegated to federally approved state waste management programs and, under Subtitle D, further promulgated to local governments for management of planning, regulation, and implementation of non-hazardous solid waste disposal. The USEPA retains oversight of state actions under 40 Code of Federal Regulations (CFR) Parts 239 - 259. Where facilities are found to be inadequate, 40 CFR Section 256.42 requires that necessary facilities and practices be developed by the responsible state and local agencies or by the private sector. In California, that responsibility was created under the California Integrated Waste Management Act of 1989 and Assembly Bill (AB) 939 (discussed below).

3.15.3.1.2 State

Solid Waste

California's Department of Resources Recycling and Recovery (CalRecycle) oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State solid waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and Senate Bill (SB) 1016 (see below).

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327 [Public Resources Code [PRC] Chapter 18 Section 42900]) required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any "development project" for which an application for a building permit is submitted to provide an adequate storage area for collection and removal of recyclable materials. These regulations govern the transfer, receipt, storage, and loading of recyclable materials at the project site.

Assembly Bill 939: California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans (IWMP), and mandated that local jurisdictions divert at least 50 percent of solid waste generated, beginning January 1, 2000. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the IWMP. The purpose of AB 939 is to promote recycling services, meet diversion targets, boost local recycling in manufacturing, and encourage the use of recycled products. AB 939 applies to all businesses and public entities that generate four cubic yards or more of solid waste per week. AB 939 also applies to private waste haulers, construction contractors, and recyclers that enter into a contract for a construction or demolition project. Therefore, these entities are required to have a recycling program. The reuse and recycling of certain portions of construction and demolition debris is essential to further the efforts to reduce solid waste and comply with AB 939 mandates.

Assembly Bill 341: Mandatory Commercial Recycling

AB 341 sets forth the requirements of the Statewide mandatory commercial solid waste recycling program. Businesses that generate four or more cubic yards of solid waste per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 set a Statewide goal for 75 percent solid waste disposal reduction by the year 2020.

Senate Bill 1016: Solid Waste Disposal Measurement Act

SB 1016 requires expressing the 50 percent solid waste diversion requirement from AB 939 in terms of pounds per person per day. Additionally, SB 1016 modifies the CalRecycle review process for each municipality's IWMP. Under SB 1016, the CalRecycle Board assesses a jurisdiction's diversion rate compliance according to a specified schedule. As of January 1, 2018, the Board is obligated to review a jurisdiction's SRRE, as well as the hazardous waste element, every two years.

Senate Bill 1374: Construction and Demolition Waste Materials Division Requirements

Construction and Demolition Waste Materials Diversion Requirements (SB 1374) was signed into law in 2002 to assist jurisdictions with diverting construction and demolition waste material. SB 1374 requires that jurisdictions provide a summary of progress made in diverting construction and demolition debris waste in the annual AB 939 report to CalRecycle.

Senate Bill 1383: Organic Waste Collection

SB 1383 sets ambitious goals for reducing organic waste disposal in California. The bill targeted a 50 percent reduction from the 2014 level by 2020, followed by a further 75 percent reduction by 2025. SB 1383 grants CalRecycle with regulatory authority to meet these targets and also introduces an additional goal: recovering at least 20 percent of currently discarded edible food for human consumption by 2025.

Assembly Bill AB 1826

AB 1826 requires businesses, as well as multi-family residential dwellings with 5 or more units, that generate a specified amount of organic waste per week to arrange for recycling services for organic waste recycling. The requirements are phased over time based on the amount and type of organics or waste a business produces on a weekly basis. As of January 1, 2017, businesses that generate four cubic yards of organic waste per week were required to arrange for organic waste recycling services. As of January 1, 2019, businesses generating four cubic yards per week of solid waste must arrange for food waste recycling services.

Water and Wastewater

California State Water Code

Pursuant to the California Water Code (CWC) Sections 10610 - 10656, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and water shortage contingency plans for drought events. Redwood City's UWMP was updated in 2021 (the 2020 UWMP),[1] with the 2025 UWMP published in May 2026[2] and adopted on June 22, 2026.[3] The City's UWMP is discussed in **Section 3.15.3.1.3** below.

When a city or county is the CEQA lead agency for a project that meets certain criteria, CWC Sections 10910 through 10915 require that the relevant water service provider – usually a water agency or district – determine whether the water demands of the proposed project were accounted for in the most recent UWMP. If the project's water demand was not accounted for in the UWMP, the water service provider must prepare a Water Supply Assessment (WSA) demonstrating there are sufficient supplies to meet the anticipated needs of the project. The proposed ferry terminal project does not meet the criteria identified for requiring preparation of a WSA.

CWC Sections 13550 and 13552.4 state that the use of recycled water can be mandated for non-potable water uses by any political subdivision of the State, contingent on recycled water meeting requirements established by the State Department of Public Health and California Code of Regulations (CCR). Recycled water must (1) be used in water systems compliant with Section 60301 of Division 4 of Title 22 of the CCR; (2) be of adequate cost and quality; (3) not pose public health threats, (4) not cause loss or diminution of any existing water right; and (5) not adversely affect downstream water rights or quality.

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[1] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[2] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[3] City of Redwood City. June 22, 2026. City Council Agenda Report. Available: https://redwoodcity-ca.granicus.com/AgendaViewer.php?view_id=2&clip_id=3694 and City Council Minutes. Available: https://redwoodcity-ca.granicus.com/MinutesViewer.php?view_id=2&clip_id=3694&doc_id=4918b53f-7fa8-11f1-94fc-005056a89546.

CWC Section 13558 requires that the State Water Board adopt risk-based water quality standards for the onsite treatment and reuse of non-potable water for end uses in multifamily residential, commercial, and mixed-use buildings by December 1, 2022. Additionally, Section 13558 requires that the Department of Housing and Community Development, in consultation with the State Water Board, propose any corresponding building standards to support the established risk-based quality standards by December 1, 2023. Rulemaking is in progress as of 2025 and is expected to be completed in April 2026.[4]

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, ordered by the SWRCB in 2006, mandates that publicly owned sewer systems greater than one mile in length must have a sewer system management plan (SSMP) implemented to prevent sanitary sewer overflows (SSOs). These plans must be system-specific, include spill response plans in the event of an SSO, and be provided to RWQCBs and the public. The order establishes minimum requirements to prevent SSOs, including monitoring and reporting programs that comply with waste discharge requirements. Both the SWRCB and RWQCBs manage the permitting of SSMPs and reporting requirements.[5]

Porter-Cologne Act

The Porter-Cologne Act governs California water quality regulation and established a program to protect water quality and water beneficial uses. The law applies to surface waters, wetlands, and groundwater including point and non-point sources of pollution. Under the law, the quality of all waters of the State shall be protected, activities and factors that may affect water quality must be regulated to attain the highest water quality within reason, and California shall protect water quality in the State from degradation. The San Francisco Bay RWQCB was established along with eight other RWQCBs.

Federal CWA provisions are implemented under the Porter-Cologne Act where states have authority, including the NPDES program as mentioned above and discussed in more detail in Section 3.9, Hydrology and Water Quality.

Other SWRCB regulatory requirements include requiring that each wastewater collection system agency shall, at a minimum, develop goals for the SSMP to provide adequate capacity to convey peak flows and General Waste Discharge Requirements for Sanitary Sewer Systems (Water Quality Order No. 2022-0103-DWQ),[6] which requires public agencies that own or operate sanitary sewer systems to develop and implement SSMPs and report all sanitary sewer spills.

Executive Order B-29-15

Executive Order (EO) B-29-15, passed in 2014, mandates the SWRCB to impose restrictions to achieve a Statewide 25 percent reduction in potable urban water usage through February 28, 2016. Water

[4] California State Water Resources Control Board. 2025. Onsite Treatment and Reuse of Nonpotable Water webpage. Available: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/onsite_nonpotable_reuse_regulations.html. Accessed July 16, 2025.

[5] California State Water Resources Control Board. May 2, 2006. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems – Order No. 2006-0003-DWQ. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf.

[6] California State Water Resources Control Board. December 6, 2022. Statewide Waste Discharge Requirements – General Order for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf.

reductions are measured as compared with 2013 levels. Areas with high per capita water usage should achieve proportionally greater reductions than those areas with lower per capita water usage. The EO additionally directs the California Department of Water Resources to work with local agencies to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes.

Title 22 of California Code of Regulations

Title 22 Division 4, Chapters 1, 2, and 3 of the CCR establish water quality standards, level of treatment, and use areas for recycled water. Sources of recycled water are identified and defined, including numerous facilities, operations, and processes that produce recycled water containing domestic waste. Acceptable uses of recycled water include irrigation, impoundments, cooling, and miscellaneous functions. Depending on its use, recycled water must comply with increasingly stringent cleanliness standards. Methods of recycled water treatment, operational requirements, and design requirements for operations handling recycled water are further specified. Recycled water usage is regulated by distance from domestic water supply wells; exceptions require additional conditions to be met. Oversight of recycled water falls under the jurisdiction of the SWRCB Division of Drinking Water (DDW). The nine RWQCBs adhere to SWRCB Order WQ 2016-0068-DDW,[7] which outlines guidelines for recycled water use.

State Water Resources Control Board, Division of Drinking Water, Source Water Assessment Program

The 1996 SDWA Amendments require each state to develop and implement a Source Water Assessment Program. Section 11672.60 of the California Health and Safety Code requires the Department of Health Services (DHS), (the precursor to California Department of Public Health) to develop and implement a program to protect sources of drinking water, specifying that the program must include both a source water assessment program and a wellhead protection program. In response to both legal mandates (Wellhead Protection Program 1986, Source Water Assessment Program 1996), DHS developed the Drinking Water Source Assessment and Protection (DWSAP) Program.

California's DWSAP Program addresses both groundwater and surface water sources. The groundwater portion of the DWSAP Program serves as the State's wellhead protection program. In developing the surface water components of the DWSAP Program, DHS integrated the existing requirements for watershed sanitary surveys.

Urban Water Management Planning Act

In 1983, the California Legislature passed the Urban Water Management Planning Act (CWC Sections 10610 - 10656). According to this Act, urban water suppliers serving 3,000 or more customers or providing over 3,000 acre-feet (AF) of water annually must prioritize reliability. They should ensure sufficient water service to meet the needs of various customer categories during normal, dry, and multiple dry years. The Act mandates that urban water suppliers create an UWMP at least once every five years and submit it to the Department of Water Resources. Non-compliant suppliers are ineligible for funding under Division 24 or Division 26 of the CWC or for drought assistance until their UWMP is submitted and deemed complete.

[7] California State Water Resources Control Board. June 7, 2016. Water Reclamation Requirements for Recycled Water Use, Water Quality Order No. 2016-0068-DDW. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2016/wqo2016_0068_ddw.pdf.

Senate Bill X7-7

The 20x2020 Water Conservation Plan was issued by the California Department of Water Resources (DWR) in 2010 pursuant to SB 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized DWR to prepare a plan implementing urban water conservation requirements, which DWR did through the 20x2020 Water Conservation Plan. In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of a 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.[8]

Assembly Bill 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires CEC to consult with DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves, to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.[9]

Stormwater

The SWRCB, in collaboration with the nine RWQCBs, carries out tasks related to water quality. These tasks encompass issuing and overseeing wastewater discharge permits (such as NPDES), managing stormwater runoff programs, and overseeing underground and above-ground storage tanks. Additionally, the SWRCB has established Statewide waste discharge criteria for sanitary sewer systems, which involve the development of SSMPs.

NPDES Permit Programs

The San Francisco Bay RWQCB implements stormwater discharge programs to comply with the CWA and the Porter-Cologne Water Quality Control Act. The Municipal Regional Stormwater Permit (MRP 3) regulates municipal stormwater discharges to surface waters including rivers, streams, lakes, and coastal waters in the regional counties including San Mateo County (Order Number R2-2022-0018 with amendment R2-2023-0019, NPDES Permit No. CAS612008). Projects that would discharge stormwater to surface waters within the County and their member agencies, which include the City, are required to comply with this permit. Small municipalities and "non-traditional" municipal separate storm sewer systems (MS4) operate under the Statewide Phase II Small MS4 Program. These are storm water systems that serve facilities such as ports, public campuses, military bases, State and federal prison and hospital complexes, and fairgrounds. The Port is designated as a non-traditional MS4 and operates under the Phase II Small MS4 permit which was adopted in July 2013 (Order Number 2013-0001-DWQ, NPDES Permit No.

[8] California Department of Water Resources et al. 2010. 20x2020 Water Conservation Plan. Available: https://cawaterlibrary.net/wp-content/uploads/2010/02/20x2020_Water_Conservation_Plan.pdf.

[9] State of California, Department of Consumer Affairs, California Architects Board - Landscape Architects Technical Committee. 2025. Model Water Efficient Landscape Ordinance (MWELO) Overview webpage. Available: https://www.latc.ca.gov/general_information/mwelo/. Accessed March 3, 2025.

CAS000004).[10] The permit is currently in the process of being reissued. An "Informal Draft Small MS4 Permit for Public Comment" was released by the SWRCB in July 2024.[11] Order Number 2013-0001-DWQ identifies that non-traditional MS4s have the same responsibilities as Traditional MS4s to prevent or reduce storm water pollution generated by their own operations, to train employees about pollution prevention/good housekeeping practices, and to identify appropriate measures to prevent or reduce the amount of storm water generated by their operations. They also need to conduct quantitative evaluation of their stormwater program and submit annual reports.

The Construction Stormwater General Permit Order No. 2022-0057-DWQ (Construction General Permit)[12] is a Statewide general permit which regulates stormwater discharges from construction activities involving disturbance of one acre or more of land. Permittees are required to submit a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) through the Stormwater Multiple Application and Reporting Tracking System (SMARTS) to request authorization from the San Francisco Bay RWQCB for construction activities under the Construction General Permit. Non-traditional MS4s, including the Port, must comply with the Construction General Permit during construction activities for their own construction projects. Further, permittees must include contract language ensuring construction operators or contractors comply with the Construction General Permit and implement appropriate best management practices (BMPs).[13]

See Section 3.9, Hydrology and Water Quality, for further discussion of requirements associated with the NPDES permits.

Other Utilities

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is tasked with ensuring that consumers have safe, reliable utility service at reasonable rates, and protecting against fraud.

California Code of Regulations

The CCR is maintained by the California Office of Administrative Law and includes authoritative sections regarding public utilities in Title 20 (Public Utilities and Energy), Division 1 (Public Utilities Commission).

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[10] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

[11] California State Water Resources Control Board. July 2024. Informal Draft Small MS4 Permit for Public Comment - Order WQ 20XX-00XX, NPDES No. CAS000004 National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/phase_ii_municipal/informal-draft-sm-municipal-permit.pdf.

[12] California State Water Resources Control Board. 2023. National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order WQ 2022-0057-DWQ NPDES NO. CAS000002. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_order.pdf.

[13] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

Additionally, the California Health and Safety Code and the CWC contain information regarding sanitary and water utilities. The Public Utilities Code, Division 1 (Regulation of Public Utilities) gives specific regulation on public utilities, including the CPUC.

California Government Code Section 4216

Section 4216 of the California Government Code (Protection of Underground Infrastructure) requires that an excavator must contact a regional notification center (e.g., Underground Service Alert) at least 2 days before excavation of any subsurface installations. An Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific locations of their facilities within the work area prior to the start of excavation. The construction contractor is required to probe and expose the underground facilities by hand prior to using power equipment.

California Code of Regulations Title 24, Part 6

The State Building Energy Efficiency Standards (CCR Title 24 Part 6) govern energy consumption associated with new buildings in California. The efficiency standards apply to new construction of residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings provided these standards meet or exceed those provided in Title 24 guidelines.

California Code of Regulations, Title 24, Part 11

The California Green Building Standards Code (Part 11, Title 24, CCR), also known as CALGreen, was established to align with the goals of AB 32. AB 32 aims to achieve cost-effective reductions in greenhouse gas emissions. CALGreen covers both residential and non-residential aspects, emphasizing environmentally responsible site selection, building design, building siting, and development practices that protect, restore, and enhance the environment of the site. It focuses on conserving water indoors, outdoors, and in wastewater conveyance; and provides guidance on material conservation, resource efficiency, and reducing air contaminants. All new residential and non-residential construction must adhere to the mandatory CALGreen requirements. Additionally, to conserve water, CALGreen requires the installation of water-efficient fixtures and equipment in new buildings and retrofits.

California Plumbing Code

The California Plumbing Code is codified in Title 24, CCR, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4 contains provisions requiring the installation of low-flow fixtures and toilets (SB 407 [2009] Civil Code Sections 1101.1 et seq.).

California Public Utilities Commission/California Energy Commission

The existing regulatory requirements and planning requirements set by the CPUC and the California Energy Commission (CEC) are constantly assessing population growth, electricity demand, and reliability. The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is tasked with ensuring that consumers have safe, reliable utility service at reasonable rates, and protecting against fraud. The CEC is tasked with conducting

assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety (PRC Section 25301(a)).

Energy Storage

California has set ambitious long-term goals for energy storage beyond 2026 to support its clean energy and climate goals. The State aims to reach 100 percent carbon-free electricity by 2045, which will require significant investment in renewable energy sources like wind and solar, as well as energy storage technologies to balance the variability of these sources.

The California Independent System Operator (CAISO) has a total energy storage capacity of more than 3,160 megawatts (MW) as of June 2022.[14] This includes both large-scale and distributed energy storage systems, such as batteries, pumped hydroelectric storage, and thermal storage. CAISO is responsible for managing the electricity grid for much of California, and it set a target of adding 3,300 MW of additional energy storage capacity by 2024 to support the integration of more renewable energy sources like wind and solar. As part of SB 100, load serving entities (LSEs) were required to procure no less than 1.3 gigawatts (GW) of energy storage capacity by 2020, and 3 GW by 2030. Additionally, the CPUC has established a target of 15 GW of energy storage capacity by 2030.[15]

3.15.3.1.3 Regional/Local

Bay Area Water Supply & Conservation Agency Regional Water Demand and Conservation Projections Update

The Bay Area Water Supply & Conservation Agency (BAWSCA) updated their 2020 Regional Water Demand and Conservation Projections Update with new data reflecting changes brought about by the COVID-19 pandemic and newer BAWSCA member agency UWMPs. In the 2022 update, BAWSCA's service area population and projected water demand both increased; water demand was projected to increase by 20 percent from 2025 to 2045, while population is projected to grow 32 percent within that time period. BAWSCA provided recommendations based on these projections to continue updating data, use latest projections for planning processes, and collaborating with member agencies to evaluate conservation efforts.[16]

San Francisco Public Utilities Commission Water System Improvement Program

The San Francisco Public Utilities Commission (SFPUC) Water System Improvement Program (WSIP) was adopted in 2002 as a $2.9 billion capital improvement program. The WSIP aims to increase reliability of the regional water system through rebuilds and retrofits designed for heightened seismic safety. Improvements in the WSIP cover water delivery lines spanning the San Francisco, Alameda, Santa Clara,

[14] California Independent System Operator. June 14, 2022. "A golden age of energy storage." Available: https://www.caiso.com/about/news/energy-matters-blog/a-golden-age-of-energy-storage-2.

[15] California Public Utilities Commission. December 1, 2022. CPUC Creates New Framework to Advance California's Transition Away From Natural Gas. Available: https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-creates-new-framework-to-advance-california-transition-away-from-natural-gas.

[16] Bay Area Water Supply & Conservation Agency. December 5, 2022. Regional Water Demand and Conservation Projections Update. Available: https://bawsca.org/uploads/userfiles/files/BAWSCA%202022%20Demand%20Study%20Update%20Final%20Report(1).pdf.

and San Mateo counties. Assembly Bill 1823 amended the CWC in 2002, mandating SFPUC to implement the WSIP and provide regular progress reports to the Joint Legislative Audit Committee, the California Seismic Safety Commission, and the Department of Health Services.[17]

San Francisco Public Utilities Commission Water Supply Agreement

The SFPUC established a contract in 2009 with the City of Redwood City and wholesale customers in the counties of Alameda, San Mateo, and Santa Clara. It is a 25-year contract with provisions for two five-year extensions, addressing wholesale water rates, water supply, and shortages. SFPUC supplies Redwood City 10.93 million gallons per day on an annual average basis; surplus water use is purchased by the City from SFPUC.[18]

San Mateo Countywide Integrated Waste Management Plan

Pursuant to AB 939, the County prepared the 1999 Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling and provide an overview of actions that will be taken to maintain 15 years of disposal capacity.[19] The CIWMP, is comprised of five key elements, the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE) and the Non-Disposal Facility Element (NDFE).

- Countywide Summary Plan: Goals and policies and summary of issues faced by the County and its cities. Provides steps needed for cities to meet the 50 percent diversion mandate.
- Countywide Siting Element: Provides evidence that there is at least 15 years of remaining capacity to hold waste for the County and its cities.
- Source Reduction and Recycling Element (SRRE): Provides analysis of the local waste stream to determine where to focus diversion efforts.
- Household Hazardous Waste Element (HHWE): Details programs that assist in recycling, treatment and disposal practices for Household Hazardous Waste programs.
- Non-Disposal Facility Element (NDFE): Identifies existing and proposed waste management facilities that would require a solid waste permit to be operationally compliant.

The CIWMP is reviewed every five years to determine if the CIWMP needs to be revised and updated. The most recent five year CIWMP update was completed by the County in 2024. The purposes of the CIWMP are, in part, to determine if the County has adequate landfill disposal capacity. The 2024 Update identifies that the County continues to have 15 years of remaining disposal capacity and is meeting its goals.[20]

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[17] Bay Area Water Supply & Conservation Agency. 2025. San Francisco Public Utilities Commission Water System Improvement Program webpage. Available: https://bawsca.org/water/supply/improvement. Accessed July 16, 2025.

[18] Bay Area Water Supply & Conservation Agency. July 2009. Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County. Available: https://bawsca.org/uploads/userfiles/files/FINAL_WSA_with_Attachments_Rev2_Sept2017(1).pdf.

[19] San Mateo County Public Works Department. 1999. San Mateo County Integrated Waste Management Plan. Prepared by ESA. Available: https://www.smcsustainability.org/waste-reduction/countywide-integrated-waste-management-plan/.

[20] County of San Mateo. 2024. Five-Year CIWMP/RAIWMP Review Report. Available: https://www.smcsustainability.org/wp-content/uploads/CIWMP-Five-Year-Review-Report-2024.pdf.

2018 Bay-Delta Plan Amendment

In December 2018, the SWRCB adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem.[21] The SWRCB is required by law to regularly review this plan. The adopted Bay-Delta Plan Amendment was developed with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 40 percent of the "unimpaired flow" on the three tributaries from February through June in every year type, whether wet, normal, dry, or critically dry.

Given ongoing negotiations, litigation, and regulatory proceedings surrounding the Bay-Delta Plan Amendment, the SFPUC uses three scenarios to analyze water supply and demand in its Water Supply Assessments, which account for the uncertainty regarding the extent and timing of the Bay-Delta Plan Amendment's implementation:

- Scenario 1 (Implementation of the Bay-Delta Plan Amendment)
- Scenario 2 (Without Implementation of the Bay-Delta Plan Amendment or the Proposed Voluntary Agreement)
- Scenario 3 (Implementation of the Proposed Voluntary Agreement)

If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet the projected water use demands as presented in the SFPUC's 2020 UWMP[22] in normal years, but would experience significant supply shortages in single dry years and multiple dry years. Without the implementation of the Bay-Delta Plan Amendment, the SFPUC would not experience shortages until the fourth and fifth year of a multi-year drought at 2045 levels of projected demand.[23] On February 25, 2019, the Office of Administrative Law approved the Bay-Delta Plan amendments, which are now in effect.[24]

[21] California State Water Resources Control Board. 2018. Bay-Delta Plan Amendment. Available: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2018_sed/.

[22] San Francisco Water Power Sewer. June 2021. 2020 Urban Water Management Plan for the City and County of San Francisco. Prepared by the San Francisco Public Utilities Commission. Available: https://www.sfpuc.gov/sites/default/files/programs/UWMP_2020.pdf.

[23] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[24] California State Water Resources Control Board. Bay-Delta Plan Update: Amendments and Substitute Environmental Document (SED) for Lower San Joaquin River and Southern Delta, Adoption and Approval of Plan Amendments and Final SED webpage. Available: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2018_sed/#:~:text=It%20adopted%20the%20amendments%20to%20the%20Bay-Delta%20Plan,Bay-Delta%20Plan%20amendments%2C%20which%20are%20now%20in%20effect. Accessed June 5, 2025.

Redwood City General Plan

The City General Plan[25] contains the following goals, policies, and implementation programs related to utilities and service systems:

Built Environment Element - Infrastructure Chapter[26]

- Goal BE-41: Provide safe and reliable potable and recycled water storage and distribution systems that will meet current and future needs.
  - Policy BE-41.1: Improve the level of service, reliability, quality, and life cycle of the city's potable and recycled water storage and distribution system.
  - Policy BE-41.2: Maintain the city's water system to ensure adequate fire flow.
  - Policy BE-41.3: Locate and design new capital-intensive potable and recycled water storage and distribution facilities, particularly storage tanks, in a manner that minimizes visual, cost, and environmental impacts to the surrounding area.
  - Policy BE-41.4: Design Redwood City's water storage and distribution system to induce rapid recovery and to provide a reliable and sufficient emergency water supply in the event of a disaster.
  - Policy BE-41.5: Continue to make every practical effort to minimize leaks in the water and recycled water distribution system, through regular monitoring and maintenance.
  - Policy BE-41.6: Support the expansion of the city's Recycled Water Service Area, and actively promote widespread use of recycled water in and around Redwood City.
- Goal BE-42: Provide adequate and reliable wastewater collection and treatment facilities that meet current and future needs.
  - Policy BE-42.1: Continue to ensure adequate treatment capacity and collection system for Redwood City's wastewater conveyed to at South Bayside System Authority (SBSA) [now Silicon Valley Clean Water [SVCW]] treatment facilities while protecting water quality and public health, and minimizing adverse impacts to the environment.
  - Policy BE-42.2: Work with South Bayside System Authority (SBSA) [now SVCW] member agencies to ensure that the treatment facility has sufficient capacity to meet future wastewater treatment needs.
  - Policy BE-42.3: Minimize groundwater infiltration and inflow to the wastewater collection system to maintain sufficient peak wet weather capacity and continue to explore other possible options to reduce peak wet weather flow.

[25] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[26] City of Redwood City. October 11, 2010. Redwood City General Plan, Built Environment Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

- Goal BE-43: Support reliable, high quality, and environmentally sound energy distribution systems to meet current and future needs.
  - Policy BE-43.1: Require that improvements and maintenance to electric and gas transmission and distribution systems that are made to accommodate new growth be performed in a manner that maintains safety, reliability, and environmental compatibility.
  - Policy BE-43.2: Support efforts to increase the use of renewable energy and low-emission power sources. Encourage the installation and construction of renewable energy systems and facilities such as wind, solar, hydropower, geothermal, and biomass facilities.
  - Policy BE-43.3: Accommodate alternative energy infrastructure as new technology evolves.
- Goal BE-44: Advocate for access to high-quality established and emerging communications technologies to facilitate efficient and affordable communication for individuals, businesses, education, and government functions.
  - Policy BE-44.1: Support efforts to develop improved communications technology in a manner that minimizes visual and environmental impacts to the surrounding area, while benefiting government, business, education, and public safety.
  - Policy BE-44.2: Require new buildings, particularly taller buildings, to be designed with sufficient space to accommodate wireless communications equipment.
  - Policy BE-44.3: Make efforts to accommodate future communications and information technologies as they develop and to replace or remove redundant or outdated technology and its associated equipment.
- Goal BE-45: Preserve community aesthetics while providing for utility needs.
  - Policy BE-45.2: Continue to require the placement of utilities underground with new development.
  - Policy BE-45.4: Strengthen requirements for underground utilities in older sections of the city as part of redevelopment projects to address public safety issues and to improve the aesthetic quality of streets and neighborhoods.
- Goal BE-46: Minimize the volume of solid waste that enters regional landfills.
  - Policy BE-46.1: Meet or exceed State mandates regarding the diversion of waste from landfills.
  - Policy BE-46.2: Encourage recycling, composting, and source reduction by residential and non-residential sources in Redwood City.
  - Policy BE-46.3: Promote green building practices with respect to recycling material from building demolition and using recycled building materials in new construction.
  - Policy BE-46.5: Take a leading role in waste reduction by promoting recycling and composting, purchasing post-consumer recycled products for City facilities, using recycled materials in City operations, and reducing the overall amount of solid waste that is produced.

- Policy BE-46.6: Promote recycling by supporting local public and private recycling programs that provide opportunities for businesses and the general public to recycle waste.
- Program BE-123: Funding for Water System Maintenance and Upgrades. As appropriate, allocate increased funding in Redwood City's Capital Improvement Program to upgrade and/or replace pipes, storage tanks, and pump stations in the Redwood City water system; monitor for water losses; and carry out preventive measures to avoid major disruptions or water losses to the water storage and distribution system. Prioritize investment in water supply delivery upgrades in areas where sub-standard size water mains currently exist.
- Program BE-124: Wastewater System Maintenance. Continue to provide funding to repair, maintain, and upgrade the city's wastewater collection system. Annually survey at least 15 miles of sewer pipeline to identify necessary repairs to pipeline cracks and improperly sealed joints that may cause groundwater infiltration. If pipeline deterioration accelerates, increase the rate of pipeline replacement accordingly. Enforce regulations that restrict the discharge of substances such as grease, oil, mud, silt, and pollutants into the sewer system.
- Program BE-125: Future Wastewater Collection Agreements. When parties outside of the service area seek wastewater collection and conveyance agreements, analyze capacity and consider potential future impact to the City. Ensure that adequate capacity is available for future development as identified in this General Plan.
- Program BE-126: Utility Project Review. Review proposed new utility projects to ensure that they are safe, environmentally sound, and compatible with surrounding land uses.
- Program BE-127: Underground Utilities.
  - Review PG&E maintenance procedures to ensure underground high-pressure gas pipelines in Redwood City are protected and maintained. Maintain maps of high pressure pipelines in Redwood City for review when new development is proposed.
  - Consult with PG&E to analyze the feasibility and cost of undergrounding portions of its overhead high-voltage transmission lines within existing developed areas and areas designated for new development.
  - Continue to enforce policies for undergrounding utilities in conjunction with new development and major street and roadway improvements. Explore potential programs and funding alternatives to underground existing overhead utilities in older areas of the city such as through assessment districts or redevelopment.
- Program BE-131: Green Building Ordinance. As appropriate, amend the Green Building Ordinance to keep pace with new technologies and procedural/process advancements.
- Program BE-132: Recycling Collection Facilities in New Development. Revise the Zoning Ordinance to require development projects to incorporate collection facilities for recyclable materials in development projects. The collection facilities may be established as part of trash enclosure areas.

- Program BE-133: Alternative Energy/Building Performance Initiatives. Consider adopting building efficiency technology and standards to maximize energy performance including but not limited to window glazing and efficiency improvements. Also consider offering or consulting with PG&E to offer financial incentives for retrofitting existing buildings.
- Program BE-136: Expand Recycled Water Use.
  - Complete construction of the proposed pipes to expand the City's recycled water services to the majority of Redwood City. Explore opportunities to export recycled water to adjacent communities and/or exchange recycled water for drinking water.
  - Conduct a feasibility study to assess costs and impediments to expanding the Recycled Water Service area to include lands southeast of Woodside Road.
  - Implement the Recycled Water Use Ordinance [Redwood City Municipal Code, Chapter 38, Article VIII, Recycled Water Use] to require new development to use recycled water for landscape irrigation and other non-potable uses, where available.
- Program BE-137: Sewer Master Plan. Consider completing a Sewer Master Plan that includes recommendations for replacement, maintenance, and improvement of sewer services. If completed, implement recommendations and periodically update the Sewer Master Plan.
- Program BE-139: Accommodate Alternative Energy Infrastructure. Analyze current and projected demand for plug-in stations for electric, plug-in hybrid, and other alternative vehicle infrastructure in City parking structures.
- Program BE-140: Waste Diversion. Increase efforts to divert waste from landfills. Concentrate on major waste diversion opportunities in the non-residential sector, identifying and consulting with the city's largest non-residential waste generators to reduce their waste generation and rates of waste disposal.
- Program BE-141: Recycling and Composting Education and Incentives.
  - Consult with San Mateo County RecycleWorks to provide educational programs to schools, businesses, and the general public on the benefits of recycling and the various recycling opportunities available in San Mateo County. Encourage local school districts to participate in Redwood City and San Mateo County recycling programs. Ensure that all new businesses upon issuance of any City permit or payment of fees are aware of mandate to recycle and are provided information on Green Business Certification. To act as an example of sustainability, review City purchasing procedures to ensure the maximum amount of recycled materials are used in City operations.
  - Confirm that the City's contract with its waste services provider incentivizes higher composting and recycling rates and decreases the volume of waste sent to landfill.
  - Partner with San Mateo County RecycleWorks to provide information and resources to help increase the number of homes, restaurants, and community members with backyard or indoor composting. Work with RecycleWorks and Recology to develop a bin distribution program for Redwood City.

- Support a range of potential community-oriented recycling and re-use activities, such as citywide e-waste recycling events; block or neighborhood-wide garage sales; and household hazardous materials drop-offs. Encourage local school districts to participate in recycling programs.

– Program BE-142: Water System Agency Consultation. Consult with the San Francisco Public Utilities Commission (SFPUC) in carrying out its Water System Improvement Program to upgrade the regional water system storage and delivery infrastructure to improve reliability. Encourage the SFPUC to minimize any adverse environmental impacts and to implement appropriate mitigation measures that may result from major capital improvements to the regional water system in Redwood City.

Public Safety Element[27]

- Goal PS-7a: Provide adequate and appropriately-designed storm drainage and flood control facilities to meet current and future needs and minimize the risk of flooding.
  - Policy PS-7a.2: Improve the drainage system's level of service to minimize storm flooding.
  - Policy PS-7a.4: Prioritize improvements to Redwood City's storm drain system in areas that are prone to flooding. Encourage the use of preventive and low-impact measures as well as maintaining, upgrading, and constructing new flood prevention infrastructure to reduce the risk of flooding.
  - Program PS-28: Stormwater System Maintenance and Upgrade Funding. As appropriate, allocate increased funding in Redwood City's Capital Improvement Program to upgrade and/or replace stormwater drainage facilities.
  - Program PS-43: Storm Drainage Facility Master Plan. Develop a Storm Drainage Master Plan to address flooding hazards and storm drainage facility needs. The Storm Drainage Master Plan should seek to balance the two primary functions of creeks: flood control and riparian habitat.

Natural Resources Element[28]

- Goal NR-1: Ensure that adequate, equitably priced, and sustainable water supplies and associated infrastructure are available to serve the needs of existing and future Redwood City water users.
  - Policy NR-1.1: Maintain or increase the city's contractual amount of water, consistent with the SFPUC Water Supply Agreement.

[27] City of Redwood City. October 11, 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[28] City of Redwood City. October 11, 2010. Redwood City General Plan, Natural Resources Element (most recently amended February 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

  - Policy NR-1.2: Seek out new sources of potable water for Redwood City. Continue to explore the possibility of developing additional water sources, including the use of groundwater, that are cost-effective and do not result in long-term, unacceptable environmental damage. Where feasible, use the latest water science and consult with the Department of Water Resources and other applicable regional water agencies. Consider using groundwater wells for emergency response purposes.
  - Policy NR-1.4: Explore surface water transfers from areas outside of the Bay Area Water Supply & Conservation Agency.
  - Policy NR-1.5: Explore the potential for transferring recycled water in exchange for potable water with other agencies. Explore the potential for increasing recycled water supply for local use.
- Goal NR-2: Reduce water consumption through aggressive implementation of conservation policies and programs.
  - Policy NR-2.1: Encourage, facilitate, and/or require the use of water conserving appliances and fixtures in new development.
  - Policy NR-2.2: Encourage the use of drought-tolerant, low-water consuming landscaping as a means of reducing overall and per capita water demand.
  - Policy NR-2.3: Continue to develop and implement water conservation programs in response to community input and to keep pace with changing technology.
- Goal NR-3: Coordinate land use and water supply planning processes so that adequate water supplies are available for proposed development.
  - Policy NR-3.1: Require new development to demonstrate that adequate water is available before project approval and to fund its fair-share costs associated with the provision of water service.
  - Program NR-2: Water Usage Monitoring. Continually track actual overall water use in Redwood City and provide an annual report that measures use against a baseline of UWMP demand projections. Create and distribute the report in a manner that promotes public understanding and participation in water management and planning, as well as information for City staff and decision-makers.
  - Program NR-3: UWMP Update. Continue to update the Urban Water Management Plan (UWMP) every five years.
  - Program NR-4: Transferring Supply Assurances. Encourage developers to work with City staff and [Bay Area Water Supply & Conservation Agency] BAWSCA to offset new water demand by transferring supply assurances from other agencies to Redwood City. Consult with other water agencies to promote surface water transfers, as necessary.
  - Program NR-5: Water System Fee Requirements. Review and update ordinances, policies, and other requirements establishing the payment of fees and charges to ensure new development pays its fair share of operating and maintaining the City's water systems, as necessary.

- Program NR-6: Ongoing Water Studies. Continue to research the relationship between water supplies, water service, land use, and the growth of the community to best estimate the city's future water supply needs.
- Program NR-7: New Development Water Demand Tracking. Develop a standardized method to track and analyze water demand and available supply for new developments. Consider expanding the City's application of SB 610 and SB 221 planning requirements to a broader range of projects for monitoring ability. Review the city's total water demand and supply annually to ensure that water supply is available for new development allowed by the Built Environment Element.
- Program NR-8: Native Landscape/Drought Tolerant Plant Materials. Encourage and promote the use of native and/or drought tolerant plants in landscaping for existing and new development.

Redwood City Urban Water Management Plan

Redwood City serves water to customers within the incorporated limits of the City, as well as portions of San Mateo County. Redwood City delivers water to residential, commercial, industrial, and governmental customers and purchases all of its potable water supplies from the SFPUC. Additionally, the City serves recycled water to its customers via its recycled water program. The City served 23,974 connections in 2020,[29] increasing to 24,951 connections as of 2025.[30] The UWMP is a foundational document and source of information about the City's historical and projected water demands, water supplies, supply reliability and potential vulnerabilities, water shortage contingency planning, and demand management programs.[31,32] Among other things, it is used as:

- A long-range planning document for water supply and system planning; and
- A source for data on population, housing, water demands, water supplies, and capital improvement projects used in:
  - Regional water resource management plans prepared by wholesale water suppliers and other regional planning authorities (as applicable),
  - General Plans prepared by cities and counties, and
  - Statewide and broad regional water resource plans prepared by the California Department of Water Resources, the State Water Resources Control Board (State Board), or other state agencies.

[29] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[30] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[31] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[32] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

The UWMP Act requires urban water suppliers to prepare an UWMP every five years and to submit the plan to the Department of Water Resources, the California State Library, and any city or county within which the supplier provides water supplies. All urban water suppliers, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 AF annually are required to prepare an UWMP (CWC Section 10617). Redwood City's UWMP was updated in 2021 (the 2020 UWMP),[33] with the 2025 UWMP published in May 2026[34] and adopted on June 22, 2026.[35] The 2025 UWMP was concurrently adopted with an updated Water Shortage Contingency Plan (WSCP). The 2025 UWMP is incorporated herein by reference,[36] and discusses past and current water demands, distribution systems and water losses, cumulative projected water demands, water supply sources, water supply reliability, drought risk assessment, and water shortage contingency planning.

City of Redwood City Municipal Code

The Redwood City Municipal Code, Chapter 9, Article IV, Adoption of 2022 State Codes, adopts the 2022 California Building Standards, Electric, Plumbing, Energy, and Green Building Standards Codes.

The Redwood City Municipal Code, Chapter 9, Article XI, Recycling and Salvaging of Construction and Demolition Debris, promotes the reduction of solid waste in landfills generated by construction projects. Specifically, all solid waste generated during construction must be recycled or reused to the degree feasible, including demolition debris. Redwood City requires a minimum of 60 percent of total construction and demolition waste and 100 percent of inert solids (non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants) to be recycled or salvaged.[37]

The Redwood City Municipal Code, Chapter 9, Article XIII, Electrical Vehicle Charging Stations, outlines the requirements and application standards for electrical vehicle charging stations (EVCS) imposed by State and local permitting authorities.

The Redwood City Municipal Code, Chapter 9, Article XV, "Amendments to 2022 California Green Building Standards Code," reflects amendments to the 2022 California Green Building Standards Code including mandatory electric vehicle (EV) charging infrastructure for new construction and energy efficiency standards. Additionally, Section 9.258 of the Redwood City Municipal Code states that all new constructed buildings shall be all-electric. However, this provision is currently unenforceable; on April 17, 2023, the Ninth Circuit Court of Appeals ruled in *California Restaurant Association v. City of Berkeley,* thereby

[33] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[34] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[35] City of Redwood City. June 22, 2026. City Council Agenda Report. Available: https://redwoodcity-ca.granicus.com/AgendaViewer.php?view_id=2&clip_id=3694 and City Council Minutes. Available: https://redwoodcity-ca.granicus.com/MinutesViewer.php?view_id=2&clip_id=3694&doc_id=4918b53f-7fa8-11f1-94fc-005056a89546.

[36] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[37] City of Redwood City. Municipal Code, Chapter 9, Article XI, Recycling and Salvaging of Construction and Demolition Debris. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH9BU_ARTXIRESACODEDE. Accessed May 1, 2025.

invalidating a Berkeley, California ordinance prohibiting natural gas infrastructure in newly-constructed buildings and holding it preempted by Section 6297(c) of EPCA.

The Redwood City Municipal Code, Chapter 38, Article VIII, Recycled Water Use (Recycled Water Use Ordinance), aims to ensure that the City remains consistent with the CWC by achieving the maximum public benefit from the use of the City's recycled water supply and identifies the required and voluntary uses of recycled water, including requirements for dual plumbing. New institutional and government projects and new commercial properties within the Recycled Water Service Area that require a City permit are required to be dual plumbed to provide for internal use of recycled water and provide for the use of recycled water for landscape irrigation. Construction permits for projects that include dust control activities require the use of recycled water for those activities.

The Redwood City Municipal Code Chapter 47, Mandatory Organic Waste Disposal Reduction, requires new commercial construction to provide for the storage and collection of organic waste material in green containers. The ordinance also requires Tier Two Commercial edible food generators to use the CalRecycle Model Food Recovery Agreement to recover edible food that would otherwise be disposed. Tier Two Commercial edible food generators include restaurants with two hundred and fifty or more seats, or a facility greater than or equal to 5,000 square feet, as well as hotels with on-site food facilities and 200 or more rooms.[38]

Redwood City Engineering Standards

The City's adopted Engineering Standards[39] consist of three volumes: Volume I - Standard Technical Specifications; Volume II – Standard Details; and Volume III – Design Criteria. Volume I includes requirements for the control of stormwater (Section 02 1330), the use of reclaimed water for dust control during construction (Section 02 2200), the installation of new water systems (Section 02 6600), the use of recycled water systems (Section 02 6620), the installation of storm drains (Section 02 7200), the installation of sanitary sewers (Section 02 7300), landscaping (Section 02 9000), and irrigation (Section 02 9100). Volume II includes standard specifications for construction in the public right-of-way – such as streets, drainage facilities, and other utilities – as well as specifications for construction of electrical/street lighting, recycled water systems, sewers, utility trench details, potable water, and landscaping. Volume III addresses design criteria for features such as storm drain design, sanitary sewer system design, water system design including fire flow rate requirements, and recycled water system design. Part XII contains Attachment R2 which includes a development review checklist for determining if stormwater control requirements apply to the project and to identify appropriate controls, Attachment D-2 which includes commercial drainage requirements, and Attachment U which contains recycled water development standards.

Redwood City Sanitary Sewer Capacity Master Plan

Redwood City's 2008 Sanitary Sewer Capacity Master Plan was updated in 2023 to reflect developmental changes and identify design updates for future capacity needs. The Master Plan includes updates to flow monitoring, land use planning and parcel loads, design flow and hydraulic criteria, hydraulic modeling,

[38] City of Redwood City. Municipal Code, Chapter 47, Mandatory Organic Waste Disposal Reduction. Available: https://library.municode.com/ca/redwood_city/codes/city_code?nodeId=CH47MAORWADIRE. Accessed May 21, 2025.

[39] City of Redwood City. Engineering Standards. Available: https://www.redwoodcity.org/departments/community-development-department/engineering-transportation/engineering/engineering-standards.

evaluation of system hydraulic performance, capacity relief projects, and the development of a sewer system Capital Improvement Program. The Master Plan includes detailed study and recommendations for the approximate 190 miles of sewer pipelines that run underneath the Main City area, Redwood Shores, and Seaport/Pacific Shores area that work in conjunction with the regional wastewater agency, Silicon Valley Clean Water.[40]

3.15.3.2 Environmental Setting

The baseline for characterizing the existing utilities setting is the conditions at the beginning of proposed project operations that consist of a cleared graded project site with a stormwater conveyance pipeline and filled stormwater ditch on the eastern edge of the site. Pursuant to lease terms, CEMEX would install the conveyance pipeline and fill the stormwater ditch. The project site has limited utility connections on-site to power security lighting and security cameras.

3.15.3.2.1 Water Supply and System

Redwood City Public Works provides water services to the City and portions of San Carlos, Woodside, and unincorporated San Mateo County. The City supplies water to over 24,000 residential, commercial, industrial, and governmental customers,[41] procuring all its potable water from the SFPUC, the City's wholesale water supply agency. The City has an Individual Supply Guarantee (ISG) of 10.93 million gallons per day (MGD) or 12,243 acre-feet per year (AFY). As such, the City's supply reliability relies on the reliability of the SFPUC.[42,43] The ISG represents the City's contractual allocation of water from the SFPUC. SFPUC is obligated to provide Redwood City with up to 100 percent of Redwood City's ISG during normal years. The SFPUC identifies that it has adequate supplies to meet its projected water demands during normal hydrologic years.[44] The SFPUC has committed to meeting the average annual water demand during non-drought years and meeting dry-year delivery needs with maximum 20 percent system-wide reduction in water service during extended droughts.[45] As stated in the 2025 UWMP, in single dry years, the supply would vary from 6,507 AFY in 2030 to 6,612 AFY in 2050. In multiple dry years, the fifth-year supply would vary from 5,664 AFY in 2030 to 5,818 AFY in 2050.[46] Dry year water supply estimates represent Redwood City's drought allocations provided by BAWSCA, which assume equal percent cutbacks across all wholesale agencies.

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[40] City of Redwood City. November 2023. Sanitary Sewer Capacity Master Plan Final Report. Prepared by Woodard & Curran. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/8.B.%20ATTACHMENT%20A%20%E2%80%93%20SANITARY%20SEWER%20CAPACITY%20MASTER%20PLAN.pdf?meetingId=2442&documentType=Agenda&itemId=9800&publishId=16098&isSection=false.

[41] City of Redwood City. 2025. Public Works: Water webpage. Available: https://www.redwoodcity.org/departments/public-works/water. Accessed May 21, 2025.

[42] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[43] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[44] San Francisco Public Utilities Commission. September 2023. 2023 Interim Water Demand Projections for the City and County of San Francisco. Available: https://www.sfpuc.gov/sites/default/files/documents/2023_Interim_Water_Demand_Projections_Sep2023_0.pdf.

[45] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[46] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

The City expects the available supplies to be sufficient to meet projected demands in normal year conditions; however, in dry year conditions, the City may be required to implement its WSCP.[47] The WSCP defines specific policies and actions to be implemented for various scenarios, such as implementing customer water budgets and surcharges or restrictions on landscape irrigation. The WSCP addresses conditions that range from shortages of 10 percent to 50 percent.

The City has a recycled water system for non-potable uses supplied by the wastewater agency that treats wastewater collected from the City's service area, Silicon Valley Clean Water Authority (SVCW). The 2025 UWMP identifies that recycled water supplies 7 percent of the City's total water demand and is anticipated to increase to 18 percent by 2050. The recycled water system serves portions of the City, including the Port and Pacific Shores Center.

The project site has no buildings on it and was used by the current leaseholder for stockpiling of materials for recycling and sale of concrete base rock. The leaseholder is in the process of vacating the project site and, pursuant to lease terms, is clearing and grading the site. The project site is not currently connected to Redwood City utilities, including water.

3.15.3.2.2 Wastewater Collection and Treatment

The City operates and maintains a wastewater collection system that includes 194 miles of sewer mains and 31 sewer lift stations, serving both residential and commercial customers. The wastewater treatment services for the City are provided by SVCW. The flow of wastewater from the City is primarily directed from the Redwood City pump station (located at 1585 Maple Street) through SVCW facilities to the sub-regional wastewater treatment plant situated at the eastern end of the Redwood Shores peninsula. A new Redwood City Pump Station was completed in October 2024 to accommodate future projected wet year flows in year 2030 and upgrades to the overall SVCW conveyance system.[48] Flows from the Seaport/Pacific Shores area can be discharged to the Maple Street Pump Station or directly to SVCW's conveyance system, or partly to both depending on the valve settings.

The City approved a Sanitary Sewer Capacity Master Plan in 2023[49] as an update of the City's 2008 Sewer System Master Plan to address the overall management, operation, and maintenance of the sewer system as required by the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The Sanitary Sewer Capacity Master Plan identified several capacity improvements designed to provide adequate capacity for the City's anticipated future development. Most of the improvements identified are on the main city collection system and involve replacing deficient sewers with larger pipes. The Sanitary Sewer Capacity Master Plan did not identify any gravity sewer deficiencies for the Seaport/Pacific Shores system. All pump stations, with the exception of Seaport 01 pump station approximately one mile south of the project site, were found to have sufficient capacity to convey future design storm peak wet weather flows. Seaport 01 pump station was predicted to exceed firm capacity in the future, primarily

[47] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[48] Brown and Cadwell. April 2017. SVCW Conveyance System Program Redwood City Pump Station Project Planning Report. Prepared for Silicon Valley Clean Water. Available: https://svcw-rescu.org/wp-content/uploads/2018/10/RCPS-PPR-Final-2017-03-31.pdf.

[49] City of Redwood City. November 2023. Sanitary Sewer Capacity Master Plan Final Report. Prepared by Woodard & Curran. Available: https://meetings.redwoodcity.org/AgendaOnline/Documents/ViewDocument/8.B.%20ATTACHMENT%20A%20%E2%80%93%20SANITARY%20SEWER%20CAPACITY%20MASTER%20PLAN.pdf?meetingId=2442&documentType=Agenda&itemId=9800&publishId=16098&isSection=false.

due to the assumed potential development of two very large parcels in that area (known as the Ferrari Pond and Abbott Labs). Development of those parcels was determined to be highly uncertain so a capacity improvement to address the possible future capacity shortfall was not identified in the 2023 Master Plan. The two sites currently remain vacant. Future development of the sites remains highly uncertain.

The SVCW wastewater treatment plant is jointly owned and operated by the cities of Redwood City, Belmont, and San Carlos and the West Bay Sanitary District, functioning as a Joint Powers Authority (JPA), with Redwood City's being the largest stakeholder. The SVCW treatment plant has a permitted operating capacity of 29 MGD for average dry weather flow (ADWF) and a design capacity of 71 MGD for peak wet weather flow (PWWF).[50] Redwood City's maximum capacity rights are 11.4 MGD for ADWF and 30.5 MGD for PWWF. In 2023, total ADWFs for the JPA were identified at approximately 13 MGD, which was down from 18 MDF eighteen years prior (2005).[51] While a need for additional PWWF capacity was identified, in 2024, an update to SVCW's wastewater conveyance system was completed to more efficiently and safely convey wastewater and also add capacity to manage higher flows. The improvements include a new gravity pipeline and flow diversion structure that can store wastewater during wet weather flows when treatment capacity is exceeded. The improvements also include drying beds that provide additional storage when needed. The improvements increase the treatment plant's ability to store wastewater short-term and increase the reliability of the processes during storm events.[52]

The 2024-2025 City's Capital Improvement Program includes funds for sewer upgrades, including a new larger 60-inch diameter sewer line parallel to the existing line to the SVCW pump station, an on-going inspection and assessment program, continued design and construction work on sewer pipeline improvements, and an ongoing program for rehabilitation of existing pump stations.[53]

City sewer lines extend along Seaport Boulevard, and a portion of the loop road from the entrance to the Pacific Shores Club north of the baseball field, where it then extends internally through the Pacific Shores Center property to the northwest portion of the loop road, and partially in the northerly driveway into the western public parking lot. There are two pump stations at the Pacific Shores Center, including one north of the baseball fields and one near the southeastern corner of the Pacific Shores Center. The Port has a separate sewer line south of the project site.

The project site currently does not generate wastewater and it does not have any sewer line connections or other wastewater collection facilities.

[50] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[51] Silicon Valley Clean Water Joint Powers Authority. April 10, 2023. Regular Meeting Agenda Item 5B2: Letter from Teresa Herra, SVCW to SVCW Commission, April 10, 2023. Available: https://svcw.org/wp-content/uploads/2023/04/SVCW-Agenda-Packet-4-10-2023.pdf#:~:text=Input%20from%20SVCW%20engineering%20consultants%20and%20member,Currently%20the%20PWWF%20capacity%20is%2080%20mgd.

[52] Silicon Valley Clean Water (SVCW). August 2017. Integrated Final Environmental Impact Report - Silicon Valley Clean Water Wastewater Conveyance System and Treatment Plant Reliability Improvement Project, CIP No. 6006, State Clearinghouse Number # SCH 2016022055. Available: https://svcw-rescu.org/wp-content/uploads/2018/07/Integrated-Final-EIR_SVCW-Conveyance-System-Project_August-2017_Revised.pdf.

[53] City of Redwood City. Recommended Capital Improvement Budget: Fiscal Year 2024-28 Five Year. Available: https://www.redwoodcity.org/home/showpublisheddocument/28648/638542922911970000.

3.15.3.2.3 Storm Drainage System

The Redwood City Public Works Services Department oversees the maintenance, operation, and repair of Redwood City's stormwater system. This system includes over 20 pump stations, 2,685 storm drain catch basins, inlets, and siphons, over 100 miles of stormdrain pipes, 82 open culverts, more than 10 miles of creeks, drain ditches, and canals, as well as 150 acres of storm retention basins in Redwood Shores.[54] The stormwater drainage system is closely regulated due to its eventual flow into the San Francisco Bay. Pump stations, catch basins, inlets, and creeks undergo annual cleaning and maintenance before October 31 (typically the start of the rainy season, extending to April 15).[55]

The existing drainage system includes a conveyance pipeline within a filled stormwater ditch along the eastern edge of the project site that outlets to a tide gate that drains into Westpoint Slough. The tide gate has a one-way flap that is approximately 80 feet from its entrance to Westpoint Slough.

3.15.3.2.4 Solid Waste and Recycling Services

In 2024, the City of Redwood City collectively generated approximately 87,730 tons of solid waste, as reported by CalRecycle.[56] Of this, roughly 85 percent, or approximately 74,390 tons, was disposed of at the Corinda Los Trancos (Ox Mountain) Sanitary Landfill, situated east of Half Moon Bay in unincorporated San Mateo County.[57] Corinda Los Trancos Landfill is estimated to have a remaining capacity of 17,240,000 cubic yards (roughly 17 million tons depending on weight and volume of material) and is permitted to operate until January 2034.[58] It has maximum daily tonnage of 3,598 tons per day[59] which equates to 1,313,270 tons per year. The remaining 10 percent of Redwood City's solid waste is diverted to various landfills within the Bay Area and elsewhere in California, including the Altamont Landfill & Resource Recovery Facility in Livermore, California, the Keller Canyon Landfill in Pittsburg, California, and the Kirby Canyon Recycling & Disposal Facility in Santa Clara County, California.[60]

Under a franchise agreement, Recology San Mateo County provides solid waste collection, recycling, transportation, and disposal services to customers in Redwood City and other San Mateo County jurisdictions. The collected waste is transported to the South Bayside Transfer Station (SBTS) in San Carlos. At the SBTS, recyclable materials are transferred to the BFI Newby Island Recyclery, which accepts plastic,

[54] City of Redwood City. October 11, 2010. Redwood City General Plan, Public Safety Element (most recently amended August 2023). Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

[55] City of Redwood City. 2025. Storm Drain Services webpage. Available: https://www.redwoodcity.org/departments/public-works/storm. Accessed May 2025.

[56] CalRecycle. 2025. RDRS Report 6: Total Jurisdiction disposal or disposal related material by Quarter sent through transfer/processors vs directly to landfills. Report generated for Redwood City in 2024. Available: https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/TotalJurisdictionDisposalTransferProcessor. Accessed May 2025.

[57] CalRecycle. 2025. RDRS Report 6: Total Jurisdiction disposal or disposal related material by Quarter sent through transfer/processors vs directly to landfills. Report generated for Redwood City in 2024. Available: https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/TotalJurisdictionDisposalTransferProcessor. Accessed May 2025.

[58] CalRecycle. No Date. SWIS Facility/Site Activity Details. Corinda Los Trancos Landfill (Ox Mnt)(41-AA-0002). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed May 20, 2025.

[59] San Mateo County Health System. June 5, 2017. Solid Waste Facility Permit. Facility Number 41-AA-0002. Corina Los Trancos Landfill.

[60] CalRecycle. 2025. RDRS Report 6: Total Jurisdiction disposal or disposal related material by Quarter sent through transfer/processors vs directly to landfills. Report generated for Redwood City in 2024. Available: https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/TotalJurisdictionDisposalTransferProcessor. Accessed July 14, 2025.

glass, tin, paper, newspaper, and aluminum from residential and commercial properties on a bi-weekly basis. BFI Newby Island Recyclery has a maximum permitted capacity of 2,500 tons per day.[61]

The project site is not served by solid waste and recycling services.

3.15.3.2.5 Electricity and Natural Gas Services

PG&E and Peninsula Clean Energy (PCE) together provide electrical services to users in Redwood City. PG&E is the sole provider for natural gas services in the City. PG&E provides distribution of electrical services in the City, while PCE provides the electrical commodity. PCE works in conjunction with PG&E to provide electricity to consumers through the use of PG&E's distribution infrastructure and network. Both utilities are regulated by the CPUC. The project site is not currently connected to natural gas lines. There is an existing electricity connection to the CEMEX marine terminal to run security lighting at the project site. There is a PG&E electrical substation located within the Port south of the project site, near the entrance to the Pacific Shores Center south of Hinman Road. There is also a PG&E high-voltage (115 kilovolt [kV]) transmission line along Seaport Boulevard that extends to the north of Hinman Road. A gas transmission pipeline is located west of U.S. Route 101. There is also a natural gas pipeline beneath Frontage Road.

3.15.3.2.6 Telecommunication Services

Redwood City telecommunication services are provided by AT&T, Verizon, Wireless Silicon Valley, and other service providers in the area. There are fiber connections from the project site to the Port office located to the south of CEMEX that power security cameras at the project site.

3.15.4 Thresholds of Significance

The proposed project would result in significant impacts associated with utilities and service systems if it would:

Impact 3.15-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Impact 3.15-2 Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact 3.15-3 Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Impact 3.15-4 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, otherwise impair the attainment of solid waste reduction goals, or not comply with federal, State, or local management and reduction statutes and regulations related to solid waste.

[61] CalRecycle. No Date. SWIS Facility/Site Activity Details. BFI Newby Island Recyclery (43-AN-0014). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1375?siteID=3398. Accessed May 20, 2025.

3.15.5 Project Impacts

3.15.5.1 Impact 3.15-1

Impact 3.15-1: Would the proposed project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

3.15.5.1.1 Construction

3.15.5.1.1.1 Ferry Terminal

The only utility connections at the project site are a connection to electrical power at the CEMEX marine terminal to the south to run security lights and a fiber connection to the Port office to run security cameras. These existing connections would be abandoned. There would be no impacts related to relocation of utilities or temporary disruption of service during construction at the project site. However, utilities are located along Seaport Boulevard corridor and Bay Trail and within the existing waterfront park, western public parking lot, and maintenance building site where construction would occur. Utilities are also located within the area where the replacement maintenance building would be built. Thus, construction would require relocating, temporarily rerouting, protecting in place, or otherwise avoiding some utility supply lines or other facilities. The construction impacts of utility relocation work (e.g., ground disturbance) would be localized and have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR. During the Final Design phase, the Project team would coordinate with utility companies to request information, identify conflict locations between construction activities and existing facilities, and determine if relocation would be required or if utility lines could be protected in-place. Preliminary relocation concepts would be developed and presented to each utility owner with affected facilities.

The project site would require new connections to the existing City utility network to serve landside and waterside elements including potable water, recycled water, stormwater collection, electricity, and telecommunications, as discussed further below. The project site would be elevated with imported fill, as discussed in Chapter 2, Project Description, and the newly installed utilities would be trenched within the fill. The location of utility lines and connections for the ferry terminal would be planned to avoid having to remove and replace existing utility infrastructure for construction of the visitor-serving uses to the extent possible. New utilities would be constructed in compliance with design standards and regulations, including the City Engineering Standards (see **Section 3.15.3.1.3**).

Water Facilities

There are currently no water conveyance systems on the project site. Construction of the ferry terminal and associated facilities would require minimal water, mostly for dust control[62] and concrete mixing, which would not necessitate the relocation or expansion of potable water infrastructure, as discussed further in **Section 3.15.5.2**. Water usage during construction would be temporary and intermittent. Water

[62] Watering for dust control is highly variable depending on weather and soil conditions and the duration of soil exposed during construction activities. During dry conditions, dust control application could include two to three applications over areas of exposed soil per day.

used for dust control would be recycled water as required by Redwood City Municipal Code Chapter 38, Article VIII (see **Section 3.15.3.1.3**).

The establishment of the ferry terminal would require new potable and recycled water pipelines and appurtenances (e.g., fire hydrants and water meters) for hose bibs on the float for hosing down the terminal facilities and queuing area as necessary, for supplying the fire water system, and for irrigation of landscaping and hydroseeding used to stabilize the fill placed at the project site. Watering for landscaping is assumed to occur across the entire project site with implementation of the ferry terminal, and therefore, the construction of pipelines and use of recycled water for the proposed project is assigned to the ferry terminal and is not included as part of the visitor-serving uses. A water main extension would be required to connect to the 12-inch main that supplies potable water to the Pacific Shores Center and a separate connection would be required to the existing recycled water system, the closest connection of which is located approximately 0.25 mile to the south on Seaport Boulevard. New water facilities would be constructed and sized in compliance with design standards and regulations, including compliance with required fire flow velocities and flow durations pursuant to the California Fire Code and Redwood City Engineering Standards.

Existing water pipelines within the footprint of the Seaport Boulevard widening and project site access road would require relocation. The construction, relocation, and operation of potable and recycled water pipelines within the project footprint have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction and relocation of utilities on-site. Therefore, construction of the ferry terminal would not require or result in any relocation or construction of new or expanded water facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Wastewater Facilities

There are currently no wastewater connections on the project site. Construction would generate wastewater through the use of portable worker restrooms and would not connect to the sewer system.

It is assumed that the existing sewer line in the Seaport Boulevard loop road from the entrance to the north of the baseball field could be protected in-place during roadway widening and would not require relocation. However, should any wastewater conveyance facilities require relocation, the impacts of utility relocation work (e.g., ground disturbance) would occur within the project footprint and have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction of utilities on-site. Thus, construction of the ferry terminal components would not require or result in any relocation or construction of new or expanded wastewater facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Stormwater Facilities

There is a stormwater pipeline on the eastern edge of the site that would remain in place. There is no other existing stormwater system infrastructure located on-site. As discussed in greater detail in Section 3.9, Hydrology and Water Quality, during construction, temporary stormwater runoff controls and BMPs would be put in place to control runoff in compliance with the Construction General Permit from the San Francisco Bay RWQCB (Order No. 2022-0057-DWQ). New permanent stormwater facilities would be constructed at the project site in compliance with design standards and regulations, including City Engineering Standards and the Phase II Small MS4 permit (Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004).[63] The new stormwater system would be sized appropriately to handle additional stormwater runoff resulting from new impervious surfaces, as discussed in more detail in Section 3.9, Hydrology and Water Quality.

The access improvements, including the Seaport Boulevard widening and project site access road, would require relocations and modifications to existing storm drains and other drainage features (e.g., curbs and gutters, catch basins, and pipes) along Seaport Boulevard and the adjacent portion of the Pacific Shores parking lot. These relocations and modifications would also be required to comply with State and City requirements described previously for improvements at the project site.

Construction of the ferry terminal would adhere to the RWQCB permit requirements and City's Engineering Standards requirements for the control of stormwater, installation of storm drains, as well as design criteria for storm drain design and would not create or contribute runoff water that would exceed the capacity of the stormwater drainage system.

The construction of new stormwater drainage infrastructure at the project site and modifications to existing stormwater drainage infrastructure associated with project access improvements has been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction and relocation of utilities. Therefore, construction of the ferry terminal and associated uses would not require or result in any relocation or construction of new or expanded stormwater facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Electric Power, Natural Gas, and Telecommunications

The only existing utilities at the site are a connection to electrical power at the CEMEX marine terminal to run security lights and a fiber connection to the Port office to run security cameras. These existing connections would be abandoned. There are no existing natural gas facilities. Construction equipment would be powered by fuel or generators if necessary and the operation of construction equipment would not require new connections to or relocations of existing electric and/or natural gas lines. The project site would require new electricity and telecommunication connections to the existing network to serve the

[63] California State Water Resources Control Board. July 1, 2013. General Permit for Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), NPDES Permit, Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004. Available: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf.

ferry terminal. New natural gas connections would not be required for the ferry terminal. Specifically, the ferry terminal would require connections to electrical utilities for the adjustable boarding ramp lift system, lighting, vessel lay berth shore power, and EV vehicle charging stations in the parking lot. Electricity for the interim portable restroom would connect to the new site utilities. Lighting would be provided at the access pier, gangway and float, passenger waiting area, and the parking lot and access road. Communication utilities would be provided to operate features such as the security system, emergency call box, public address system, and Clipper card readers.

During construction of the access improvements, such as widening Seaport Boulevard and relocating the railroad tracks on Frontage Road, existing electricity, natural gas, and telecommunication infrastructure (e.g., cell towers, 5G-enabled small cell antenna, and fiber optic cables) would be protected in-place as feasible, or relocated where necessary, which would be determined during the engineering design phase. The construction, relocation, and operation of existing electricity, natural gas, and telecommunication infrastructure within the project footprint have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction of utilities.

Therefore, construction of the ferry terminal and associated uses would not require or result in the relocation or construction of new or expanded electrical, natural gas, or telecommunication facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

3.15.5.1.1.2 Visitor-Serving Uses

The visitor-serving uses would be constructed after the ferry terminal; therefore, there would be some utility connections at the project site installed for operation of the ferry terminal prior to construction. However, new distribution lines and connections would be required as discussed below. New utilities, connections, and relocations would be constructed in compliance with design standards and regulations, including compliance with City Engineering Standards (see **Section 3.15.3.1.3**).

The approximate square footage for the mix of uses has been used to estimate the resulting burden on utilities. The analysis of potential physical environmental impacts is based on reasonable assumptions about future development that could occur based on site constraints and consistency with the Port's 2020 Vision Plan, existing General Plan land designation, and proposed zoning classification. These assumptions are identified in Chapter 2, Project Description.

Water Facilities

There would be potable water and recycled water conveyance systems installed on the project site for the ferry terminal phase, including site landscaping. Construction of the visitor-serving uses would require minimal amounts of water for dust control[64] and concrete mixing, which use on-site water or water trucks that are filled off-site. This would not necessitate the relocation or expansion of potable water

[64] Watering for dust control is highly variable depending on weather and soil conditions and the duration of soil exposed soils during construction activities. During dry conditions, dust control application could include two or three applications over areas of exposed soil per day.

infrastructure, as discussed further in **Section 3.15.5.2**. Water usage during construction would be temporary and intermittent. Water for dust control would be required to be recycled water per the City's Recycled Water Use Ordinance.

The establishment of visitor-serving uses would require new potable water pipelines and appurtenances (e.g., fire hydrants and water meters) to supply potable water to the visitor-serving uses. This would require connection to the water pipeline installed to serve the ferry terminal or to the main that supplies potable water to the Pacific Shores Center. Recycled water pipelines would be installed with the ferry terminal, but, as required by the Redwood City Municipal Code, Chapter 38, Article VIII, the new buildings would be dual plumbed to provide for internal use of recycled water, which would require new connections and pipelines. The installation and operation of potable and recycled water pipelines within the project footprint have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction and relocation of utilities on-site. Therefore, construction of the visitor-serving uses would not require or result in any relocation or construction of new or expanded water facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Wastewater Facilities

There are currently no wastewater connections on the project site and none would be installed with the ferry terminal. Construction would generate wastewater through the use of portable worker restrooms and not connect to the sewer system. There would also be an interim portable restroom at the ferry terminal.

Construction of the visitor-serving uses would require new sewer lines and connection to the municipal sanitary sewer system. The Port would work with the Pacific Shores Center to establish a connection to the system that serves Pacific Shores Center and includes an existing pipeline approximately 200 feet east of the project site, or the connection would be established to the sewer main in Seaport Boulevard approximately 900 feet to the south. No existing sewer lines would be relocated. The construction impacts of wastewater conveyance facilities would occur within the project area and have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction of utilities on-site. Thus, construction of the visitor-serving uses would not require or result in any relocation or construction of new or expanded wastewater facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Stormwater Facilities

In addition to the drainage pipe on the eastern edge of the project site, there would be existing stormwater drainage infrastructure that was installed during construction of the ferry terminal. Some alteration of the stormwater system installed with the ferry terminal near the visitor-serving uses may be

required to adjust for the establishment of structures and additional impervious surfaces. During construction of the visitor-serving uses temporary stormwater runoff controls and BMPs would be put in place to control runoff in compliance with the Construction General Permit from the San Francisco Bay RWQCB (Order No. 2022-0057-DWQ).

As described for the ferry terminal above, new permanent stormwater facilities would be constructed at the project site in compliance with City requirements and RWQCB permits. The construction of new stormwater drainage infrastructure at the project site and modifications to stormwater drainage infrastructure established at the project site during construction of the ferry terminal has been evaluated as part of the Project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction and modification of utilities within the project footprint. Therefore, construction of the visitor-serving uses would not require or result in any relocation or construction of new or expanded stormwater facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

Electric Power, Natural Gas, and Telecommunications

Construction equipment would be powered by fuel or generators if necessary and the operation of construction equipment would not require new connections to or relocations of existing electric and/or natural gas lines. However, the new electric lines and telecommunications established at the project site during construction of the ferry terminal would need to be expanded to serve the visitor-serving uses. New natural gas lines would be established at the project site during construction to serve the visitor-serving uses.

During construction of the visitor-serving uses, existing utility infrastructure would be protected in-place as feasible, or relocated where necessary, which would be determined during the engineering design phase. The construction, relocation, and operation of existing electricity, natural gas, and telecommunication infrastructure within the project footprint have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR (in particular, see Section 3.2, Air Quality, Section 3.6, Geology, Soils, and Paleontological Resources, Section 3.9, Hydrology and Water Quality, and Section 3.11, Noise and Vibration). Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction of utilities.

Therefore, construction of the visitor-serving uses would not require or result in any relocation or construction of new or expanded electrical, natural gas, or telecommunication facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

3.15.5.1.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, construction of the proposed project would require new potable and recycled water, wastewater, stormwater, electricity, natural gas, and telecommunications infrastructure and connections to the existing utility network to serve the proposed project. These new utilities at the project site would be trenched within the fill used to elevate the project site and connections to the existing network would

occur outside of the project site. Construction of the proposed project would also require relocating, temporarily rerouting, protecting in place, or otherwise avoiding utility supply lines and infrastructure located in the project area. The location of utility lines and connections for the ferry terminal would be planned to avoid having to remove and replace existing utility infrastructure for construction of the visitor-serving facilities to the extent possible. However, the new and expanded utilities may include connections to utilities installed with the ferry terminal and some alteration of the stormwater system installed with the ferry terminal near the visitor-serving uses may be required to adjust for the establishment of structures and additional impervious surfaces. New utilities, connections, and relocations would be constructed in compliance with design standards and regulations, including compliance with City Engineering Standards. Construction, new connections, and relocations of utilities have been evaluated as part of the proposed project in context with other physical effects on the environment in this Draft EIR. Any rules, regulations, and mitigation measures (if applicable) identified in those and other sections of this Draft EIR would also apply to the construction of utilities. Construction of the proposed project would not require or result in any relocation or construction of new or expanded utilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

3.15.5.1.2 Operations

3.15.5.1.2.1 Ferry Terminal

Water Facilities

As discussed above, and under Impact 3.15-2 below, the project site would require new water connections to the existing City utility network to serve landside and waterside elements of the ferry. Operation of the ferry terminal would require potable water for hose bibs on the float for hosing down facilities as needed and to supply a fire water system. Hosing down facilities and use of the fire water system would be intermittent and only occur when needed. It would not result in a consistent or sizeable water demand that could deplete the City's water supply. The ferry terminal would also have a portable restroom that would be an interim facility until permanent restrooms are provided as part of the visitor-serving uses. The restroom would primarily serve ferry passengers but it would also be open to other visitors to the site, such as Bay Trail users. Restrooms would also be available on the ferry vessels and the interim portable restroom would not have high usage and would result in a small water demand (approximately 8,578 gallons per year). Irrigation for the site landscaping would use recycled water per Redwood City Municipal Code Chapter 38, Article VIII (see **Section 3.15.3.1.3**). As shown in **Table 3.15-1** in **Section 3.15.5.2.2.1**, the estimated amount of recycled water required for landscaping per year is approximately 116,000 gallons per year (0.36 AFY).

This water use would be a slight increase in the existing water demand for the City and would not affect water supplies or result in the relocation or construction of new or expanded water facilities. Therefore, operation of the ferry terminal would not require or result in any relocation or construction of new or expanded water facilities which would cause significant environmental effects. The impact would be less than significant.

Wastewater Facilities

An interim portable restroom facility would collect wastewater in an aboveground holding tank and would not connect to the sewer system. The interim portable restroom facility at the ferry terminal would be

replaced by a permanent facility when a sewer line is established at the project site for future visitor-serving uses (addressed under the evaluation of visitor-serving uses below). Wastewater generation from the interim portable restroom would be minimal and it would be trucked off-site and not disposed of in the project area. The quantity of wastewater being disposed of from the interim potable restroom facility would not overburden the wastewater treatment system and would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. Landscape irrigation for the ferry terminal would percolate into the ground after use or evaporate, requiring no wastewater treatment.

Thus, operation of the ferry terminal would not require or result in any relocation or construction of new or expanded wastewater facilities which would cause significant environmental effects. The impact would be less than significant.

Stormwater Facilities

The implementation of the ferry terminal would result in an increase in the amount of impervious surfaces over existing conditions as new hardscape surfaces (e.g., ferry dock and parking lot) would be added. As described in the construction evaluation above, the proposed project would include installation of a new stormwater system in compliance with State and City requirements that include City Engineering Standards and the Phase II Small MS4 permit (Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004) (see also Section 3.9, Hydrology and Water Quality). The new stormwater system would be sized appropriately to handle additional stormwater runoff and the operation of the ferry terminal would not require or result in any relocation or construction of new or expanded stormwater facilities which would cause significant environmental effects. The impact would be less than significant.

Electric Power, Natural Gas, and Telecommunications

As discussed under the construction evaluation above, the project site would require new electricity and telecommunication connections to the existing City utility network to serve landside and waterside elements of the ferry. Electricity would be provided to the project site by PG&E, which reported a total consumption of 77,886 million kilowatt hours (77.89 gigawatt hours [GWh]) of electricity for its service network in 2022.[65] The ferry terminal, including street and parking lot lighting and EV charging stations, is estimated to consume approximately 893,931 kilowatt hours of electricity per year (kWh/year). This small increase in PG&E's electricity demand would not affect electricity supplies or result in the relocation or construction of new or expanded electric power facilities. Natural gas usage would not be required for operation of the ferry terminal.

As discussed in Chapter 2, Project Description, the ferry float is being designed to include space for the possible future installation of electric vessel charging infrastructure, in the event the technology evolves and becomes commercially available. The float dimensions would conform with the Water Emergency Transportation Authority's (WETA's) updated ferry terminal standard specification recommendations, which would include providing compartments in the float for future power electronics and equipment. This includes space to accommodate electric vehicle charging infrastructure and an on-site battery energy storage system to increase useable storage volume and supplement the electric power grid should electric vessels be used for the Redwood City routes in the future. The minimum preliminary wattage required to

[65] California Energy Commission. 2022. Electricity Consumption by Entity. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed August 18, 2026.

accommodate future electrification is approximately 4.4 million watts. Based on preliminary communications with PG&E, PG&E would not require additional capacity work to serve the proposed project's electricity needs, including the ferry terminal, the potential future electrification of the ferry vessels, and visitor-serving uses.[66] See Section 3.5, Energy, for additional information.

Communication utilities would be provided to operate features such as the security system, emergency call box, public address system, and Clipper card readers. The operation of these telecommunication connections to the project site are not anticipated to require the relocation or construction of new or expanded telecommunications network facilities.

Therefore, operation of the ferry terminal would not require or result in the relocation or construction of new or expanded electricity, natural gas, or telecommunications facilities which would cause significant environmental effects. The impact would be less than significant.

3.15.5.1.2.2 Visitor-Serving Uses

Water Facilities

As discussed under construction impacts above, the project site would require new water connections to the existing City utility network to serve visitor-serving uses and the permanent restroom for the ferry terminal. Landscape irrigation was considered part of the ferry terminal components. Operation of the visitor-serving uses is estimated to consume approximately 13.1 million gallons per year of water, or 36,015 gallons per day. As discussed further under Impact 3.15-2, this water use would represent less than 1 percent of the ISG for the City and would not affect water supplies or result in the relocation or construction of new or expanded water facilities. Additionally, the visitor-serving uses would adhere to CALGreen regulations, which require the installation of water-efficient fixtures and equipment in new buildings and provide guidance on conserving water for indoor and outdoor use. Furthermore, the visitor-serving uses would be required to use recycled water for internal uses (such as toilet flushing and commercial cooling) per the Redwood City Municipal Code, thus conserving water supplies. The use of recycled water for the visitor-serving uses would adhere to SWRCB Order WQ 2016-0068-DDW.

Therefore, operation of the visitor-serving uses would not require or result in any relocation or construction of new or expanded water facilities which would cause significant environmental effects. The impact would be less than significant.

Wastewater Facilities

The project site would require new wastewater connections to the existing City utility network to serve visitor-serving uses. Operation of the visitor-serving uses would consume approximately 13.1 million gallons per year of water. Assuming 90 percent of this water use would be discharged to the sewer (accounting for a 10 percent reduction for evaporation and infiltration), an average of approximately 11.9 million gallons per year of wastewater, or approximately 32,600 gallons per day, would be disposed to the sewer, which represents less than 1 percent of the Redwood City's maximum capacity rights. Therefore, the SVCW's wastewater conveyance system would accommodate the increase in wastewater generation from the proposed project. Per Part 5, Chapter 4 of the California Plumbing Code, the visitor-serving uses

[66] Rajappa, Sunil. Division Operations Specialist – Bay Area Region, Pacific Gas and Electric Company. Personal Communication. February 2, 2025.

would install low-flow fixtures and toilets. Furthermore, the new construction would adhere to CALGreen regulations, which focus on conserving water for wastewater conveyance.

Thus, operation of the visitor-serving uses would not require or result in any notable relocation or construction of new or expanded wastewater facilities which would cause significant environmental effects. The impact would be less than significant.

Stormwater Facilities

The implementation of visitor-serving uses would result in an increase in the amount of impervious surfaces over existing conditions as new hardscape would be added to the project site. As described in the construction evaluation above, the proposed project would include installation of a new stormwater system in compliance with State and City requirements that include City Engineering Standards and the Phase II Small MS4 permit (Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004) (see also Section 3.9, Hydrology and Water Quality). The new stormwater system would be sized appropriately to handle additional stormwater runoff and implementation of the visitor-serving uses would not require or result in any relocation or construction of new or expanded stormwater facilities which would cause significant environmental effects. The impact would be less than significant.

Electric Power, Natural Gas, and Telecommunications

As discussed under the construction evaluation above, the project site would require new electricity, natural gas, and telecommunication connections to the existing utility network to serve the visitor-serving uses.

The visitor-serving uses are estimated to consume 2.3 million kWh/year of electricity. As described above, based on preliminary communications with PG&E, PG&E would not require additional capacity work to serve the proposed project's electricity needs, including the visitor-serving uses, and the ferry terminal and the potential future electrification of the ferry vessels as discussed above.[67] Thus, this electricity use would not result in the need for relocation or construction of new or expanded electric power facilities.

Natural gas would be provided to the project site by PG&E, which reported a total consumption of 4,422 million therms of natural gas for its service network in 2022.[68] The visitor-serving uses are estimated to consume approximately 8.3 million kilo British thermal units (KBtu)/year of natural gas. This increase in natural gas consumption would be typical of hotel and restaurant uses. Compared to PG&E's total natural gas demand, this increase in natural gas consumption on the project site would be negligible and would not affect natural gas supplies. Thus, the use of natural gas would not result in the need for relocation or construction of new or expanded natural gas pipelines.

The visitor-serving uses would adhere to the Title 24 building efficiency standards for reducing energy consumption associated with heating, cooling, ventilation, water heating, and lighting as well as the CALGreen Building Code. See Section 3.5, Energy, for additional information.

[67] Rajappa, Sunil. Division Operations Specialist – Bay Area Region, Pacific Gas and Electric Company. Personal Communication. February 2, 2025.

[68] California Energy Commission. 2024. Gas Consumption by Entity. Accessed March 12, 2024.

Communication utilities would connect to the hotel, restaurant, and office uses as discussed is the construction evaluation above. The operation of these telecommunication facilities is not anticipated to require the relocation or construction of new or expanded telecommunications facilities.

Therefore, the visitor-serving uses would not require or result in any relocation or construction of new or expanded electrical, natural gas, or telecommunication facilities which would cause significant environmental effects not already addressed as part of the proposed project. The impact would be less than significant.

3.15.5.1.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above and in the evaluation of construction impacts, new utilities would be installed to serve the proposed project. The increased burden on those utilities (include increased water, electricity, natural gas, and telecommunications demand and increased wastewater and stormwater generation) would be adequately accommodated by existing service providers, supplies, and facilities and project operation would not require new or expanded facilities. Further, the proposed project would be required to adhere to efficiency and conservation requirements set forth in regulations such as the CALGreen Building Code, the California Plumbing Code, and the Redwood City Municipal Code, which would serve to reduce the utilities burden. Operation of the proposed project would not require or result in any relocation or construction of new or expanded water, wastewater, stormwater, electric power, natural gas, or telecommunications facilities which would cause significant environmental effects. The impact would be less than significant.

3.15.5.1.3 Mitigation Measures

No mitigation is required for construction or operations.

3.15.5.1.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.15.5.2 Impact 3.15-2

Impact 3.15-2: Would the proposed project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

3.15.5.2.1 Construction

3.15.5.2.1.1 Ferry Terminal

During construction of the ferry terminal and associated uses, water would be used for various purposes, primarily for dust suppression of exposed soils. Water used for dust control would be provided by water trucks that are filled off-site and would be required to be recycled water per Redwood City Municipal Code Chapter 38, Article VIII (see **Section 3.15.3.1.3**). The amount of water used would vary depending on the amount of exposed soil requiring dust suppression and the weather conditions when soil is exposed (e.g., increased frequency of wetting exposed soils would be required during hot and dry conditions as opposed to a lower frequency during cool and moist conditions). However, because the water used would be recycled water, it would not have an effect on the City's potable water supplies. Water would also be used for mixing and pouring concrete. When needed, concrete mixing would primarily occur off-site using an off-site water source selected by the contractor. During construction, recycled water would be used for dust control and off-site water sources would be used for concrete mixing. As a result, the City's

potable water supplies would not be depleted. Therefore, construction of the ferry terminal would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and result in a less than significant impact on water supplies.

3.15.5.2.1.2 Visitor-Serving Uses

As with the ferry terminal construction discussed above, water would be used primarily for dust suppression as well as concrete mixing during construction of the visitor-serving uses. The water for dust control would be provided by water trucks that are filled off-site and would be required to be recycled water per Redwood City Municipal Code Chapter 38, Article VIII (see **Section 3.15.3.1.3**). Water would also be used for mixing concrete, which would primarily occur off-site using an off-site water source selected by the contractor. Water usage during construction would use recycled water for dust control and off-site water sources for concrete mixing. Construction activities would not deplete the City's potable water supplies. Therefore, construction of the visitor-serving uses would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and result in a less than significant impact on water supplies.

3.15.5.2.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

As described above, the amount of water used during construction would be highly variable and overall require minimal water supplies. Water usage for construction of the ferry terminal followed by construction of the visitor-serving uses would be temporary and use recycled water for dust control and off-site water sources for concrete mixing. Construction activities would not substantially deplete the City's potable water supplies during normal, dry, or multiple dry years. Therefore, construction of the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and result in a less than significant impact on water supplies.

3.15.5.2.2 Operations

3.15.5.2.2.1 Ferry Terminal

Operation of the ferry terminal would require potable water for hose bibs on the float for hosing down facilities as needed and to supply a fire water system. Hosing down facilities and use of the fire water system would be intermittent and only occur when needed. It would not result in a consistent or sizeable water demand that could deplete the City's water supply.

The ferry terminal would have a portable restroom that would be an interim facility until permanent restrooms are provided as part of the visitor-serving servicing uses. The restroom would primarily serve ferry passengers but it would also be open to other visitors to the site, such as Bay Trail users. Freshwater for the restroom would be provided by connections to the new site utilities. Restrooms would also be available on the ferry vessels and the interim portable restroom would not have high usage. Water usage is estimated to be approximately 8,600 gallons per year (less than 0.3 AFY) for the interim portable restroom. This water use would be a slight increase in demand and would not affect water supplies. The interim portable restroom facility at the ferry terminal would be replaced by a permanent facility when a sewer line is established at the project site for future visitor-serving uses (addressed under the evaluation of visitor-serving uses below).

Further, water use would comply with State and local regulations related to water conservation, such as the Redwood City Municipal Code and the CWC, which encourage customers to use recycled water for

landscape irrigation and other internal uses, and the California Building Code which requires low water fixtures and water conservation measures. Operation of the ferry terminal would not substantially deplete municipal water supplies during normal, dry, or multiple dry years and would therefore have a less than significant impact on water supplies.

Irrigation for the site landscaping would use recycled water per Redwood City Municipal Code, Chapter 38, Article VIII (see **Section 3.15.3.1.3**). Additionally, landscaping would use drought-tolerant plants, which would satisfy water conservation policies within the Natural Resources Element of the City's General Plan and reduce the amount of watering required. As shown in **Table 3.15-1**, the estimated amount of recycled water required for landscaping per year is approximately 116,000 gallons per year (0.36 AFY). As described above, this water demand would be fulfilled using recycled water.

A small amount of potable water would be required for operation of the ferry terminal, and it would not result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be less than significant.

Table 3.15-1 Estimate of Water Use for Operation of the Ferry Terminal

Development Component	Total Indoor Water (gals/yr)[1]	Total Outdoor Water (gals/yr)[1]
Ferry Terminal	8,578	116,063
Surface Parking	0	0
Bay Trail Extension (on-site only)	0	0
Seaport Blvd Bike Lane	0	0
Seaport Blvd Sidewalk	0	0
Bay Trail Extension	0	0
Total	**8,578**	**116,063**

Note:
[1] Based on CalEEMod water demand factors by land use (Appendix B of this Draft EIR).

3.15.5.2.2.2 Visitor-Serving Uses

Operation of the permanent restroom at the ferry terminal and new hotel, restaurant, and office uses is estimated to require approximately 13.1 million gallons (40.34 AFY) of water each year, as shown in **Table 3.15-2**. This is approximately 0.33 percent of the City's annual ISG. Any water use would comply with State and local regulations related to water conservation, such as the Redwood City Municipal Code that would require the buildings to be dual plumbed to provide for internal use of recycled water, and the CWC, which encourages the use of recycled water for internal uses, such as toilet flushing and commercial cooling. Further, plumbing would comply with water conservation requirements, such as CALGreen and the California Plumbing Code, which mandate installation of water conserving plumbing fixtures and fittings (e.g., low-flow water fixtures and high-efficiency toilets and urinals). The water consumption estimate is based on Statewide consumption averages and is conservative in that it does not account for internal use of recycled water or compliance with current and future high efficiency and water conservation requirements. Landscape irrigation, which would use recycled water, was considered part of the ferry terminal components.

As identified above, the visitor-serving uses would represent approximately 0.33 percent of the City's allocated ISG of 10.93 MGD or 12,243 AFY without accounting for interior use of recycled water. In 2025, the City's actual purchases amounted to 7.43 MGD. Between projected years 2025-2050, the City is

projected to purchase no more than 8 MGD.[69] Additionally, the City's 2025 UWMP projects future water demands through 2050 based on population and employment projections within the City's service area to be 9,628 AFY[70] which is less than the ISG and reflects both increased demand from growth and reduced demand from conservation and efficiency gains.[71] The relatively small increase in water demand associated with the visitor-serving uses would not cause an exceedance in the ISG. Further, the City expects the available supplies to be sufficient to meet projected demands through 2050 in normal year conditions. While the UWMP identifies that shortages may occur in dry year conditions, the City has a WSCP[72] that would be implemented if needed, to address shortages of 10 to 50 percent. If needed, water use at the project site would comply with applicable provisions and restrictions set forth within the WSCP.

Because of compliance with State and local regulations related to water conservation, operation of the visitor-serving uses would not substantially deplete municipal water supplies. The visitor-serving uses would not result in an exceedance of the City's ISG allocation and would not result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be less than significant.

Table 3.15-2 Estimate of Water Use for Operation of the Visitor-Serving Uses

Development Component	Total Indoor Water (gals/yr)[1]	Total Outdoor Water (gals/yr)[2]
Hotel	5,073,354	0
Permanent Restroom	15,011	0
Restaurant	6,070,674	0
Office	1,986,597	0
Total	**13,145,636**	**0**

Notes:
[1] Based on CalEEMod water demand factors by land use (see Appendix B of this Draft EIR).
[2] All known landscaping for the proposed project is assigned to the Ferry Terminal and is not included as part of the visitor-serving uses.

3.15.5.2.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project operations would require approximately 13,154,214 million gallons per year (40.37 AFY) of water for the ferry terminal and for the visitor-serving uses. Landscape irrigation would use recycled water. Any water use would comply with State and local regulations related to water conservation, such as the Redwood City Municipal Code that would require the buildings to be dual plumbed to provide for internal use of recycled water, and the CWC, which encourages the use of recycled water for internal uses, such as toilet flushing and commercial cooling. Further, plumbing would comply with water conservation requirements, such as CALGreen and the California Plumbing Code, which mandate installation of water conserving plumbing fixtures and fittings which would reduce the water

[69] San Francisco Water Power Sewer. June 2021. 2020 Urban Water Management Plan for the City and County of San Francisco. Prepared by the San Francisco Public Utilities Commission. Available: https://www.sfpuc.gov/sites/default/files/programs/UWMP_2020.pdf.
[70] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.
[71] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.
[72] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City, Appendix G – Redwood City's Water Shortage Contingency Plan. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

supply needs. As described above, for the visitor-serving uses, the increased water demand associated with the proposed project would not cause an exceedance in the ISG. Further, the City expects the available supplies to be sufficient to meet projected demands through 2050 in normal year conditions and has a WSCP to address shortages of up to 50 percent in dry and multiple dry years.

Operation of the proposed project would not substantially deplete municipal water supplies during normal, dry, or multiple dry years and would not result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be less than significant.

3.15.5.2.3 Mitigation Measures

No mitigation is required for construction or operations.

3.15.5.2.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.15.5.3 Impact 3.15-3

Impact 3.15-3: Would the proposed project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

3.15.5.3.1 Construction

3.15.5.3.1.1 Ferry Terminal

Construction of the ferry terminal and associated uses would generate wastewater through the use of portable worker restrooms that would not connect to the sewer system. The portable worker restrooms would be maintained by a contracted service provider. The amount of wastewater disposed of from the portable worker restrooms would be negligible in relation to the size and capacity of the wastewater treatment system, such that it would not overburden the system. Therefore, construction of the ferry terminal would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during construction in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.1.2 Visitor-Serving Uses

Construction of the visitor-serving uses would generate wastewater through the use of portable worker restrooms that would not connect to the sewer system. The portable worker restrooms would be maintained by a contracted service provider. The amount of wastewater disposed of from the portable worker restrooms would be negligible in relation to the size and capacity of the wastewater treatment system and would not overburden the system. Therefore, construction of the visitor-serving uses would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during construction in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Construction of the proposed project would generate wastewater through the use of portable worker restrooms that would not connect to the sewer system. Wastewater generation would be negligible in

relation to the size and capacity of the wastewater treatment system and would not overburden the system. Therefore, construction of the proposed project would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during construction in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.2 Operations

3.15.5.3.2.1 Ferry Terminal

The ferry terminal would have interim portable restrooms prior to construction of the visitor-serving uses. The interim portable restroom facilities at the ferry terminal would be replaced by a permanent facility when a sewer line is established at the project site for future visitor-serving uses (addressed under the evaluation of visitor-serving uses below). The interim portable restroom facilities would not connect to the sewer system. The interim portable restroom would be maintained by a contracted service provider. Wastewater generation from the interim portable restroom would be minimal in relation to the size and capacity of the wastewater treatment system and would not overburden the system. Restrooms would also be available on the ferry vessels. Wastewater from the on-board restrooms would not be disposed of at the project site.

As described under Impact 3.15-2 above, landscape irrigation would require approximately 116 thousand gallons of recycled water per year. This water would percolate into the ground after use or evaporate, requiring no wastewater treatment. There would be intermittent use of potable water for hosing down terminal facilities and queuing areas, and, as-needed, use of potable water for firefighting. This water would runoff into Redwood Creek or be collected in the stormdrain system.

Therefore, operation of the ferry terminal and associated uses would result in minimal generation of wastewater. Operation of the ferry terminal would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during operations in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.2.2 Visitor-Serving Uses

Operation of the proposed project would result in wastewater generation associated with development of the permanent restroom at the ferry terminal and the new hotel, restaurant, and office uses. The project site currently does not have any wastewater collection. The visitor-serving uses would result in wastewater-generating facilities (e.g., sinks, toilets) associated with the new square footage to be constructed. As described above, indoor water use for the visitor-serving uses would be approximately 13.1 million gallons of water per year (including potable and recycled water used in toilets and urinals which would both require water treatment). Assuming 90 percent of this water use would be discharged to the sewer (accounting for a 10 percent reduction for evaporation and infiltration), an average of approximately 11.9 million gallons per year of wastewater would be disposed to the sewer. As described in **Section 3.15.3.2.2**, the SVCW wastewater treatment plant, which would serve the project site, has a current capacity of 29 MGD for ADWF and a design capacity of 71 MGD for PWWF. Redwood City's maximum capacity rights are 11.4 MGD for ADWF and 30.5 MGD for PWWF. Additionally, an update to

SVCW's wastewater conveyance system was completed in 2024, resulting in added capacity.[73] The City of Redwood City has a current allotment of 13.8 MGD and generates approximately 9 MGD.[74] Thus, the SVCW wastewater treatment plant has sufficient capacity to accommodate the projected increase of 11.9 million gallons per year of wastewater associated with the visitor-serving uses.

Plumbing would comply with water conservation requirements, such as CALGreen and the California Plumbing Code, which mandate installation of water conserving plumbing fixtures and fittings (e.g., low-flow water fixtures and high-efficiency toilets and urinals). The estimated amount of water use is conservative in that it does not account for internal use of high efficiency water fixtures.

Therefore, as described above, operation of the visitor-serving uses would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during operations in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Operation of the proposed project would result in new wastewater collection generation associated with visitor-serving uses and the permanent restroom at the ferry terminal. As described above, an average of approximately 11.9 million gallons per year of wastewater would be disposed to the sewer from the visitor-serving uses, which would be accommodated by the SVCW wastewater treatment plant.

Therefore, operation of the proposed project would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project's projected demand during operations in addition to the provider's existing commitments. The impact would be less than significant.

3.15.5.3.3 Mitigation Measures

No mitigation is required for construction or operations.

3.15.5.3.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.15.5.4 Impact 3.15-4

Impact 3.15-4: Would the proposed project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, otherwise impair the attainment of solid waste reduction goals, or not comply with federal, State, or local management and reduction statutes and regulations related to solid waste?

[73] City of Redwood City. June 2021. 2020 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F4908902823%2FDraft%20UWMP%202020%20Redwood%20City_20210624_withAppendices.pdf.

[74] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.

3.15.5.4.1 Construction

3.15.5.4.1.1 Ferry Terminal

Construction and demolition activities associated with the ferry terminal including site preparation; dredging; removal of the railroad tracks, Pacific Shores Center maintenance building, and a portion of the western public parking lot and Seaport Boulevard; construction of the new maintenance building, access road, roadway widening, the Bay Trail, and ferry terminal; installation of utilities; and installation of drought tolerant landscaping and lighting would generate debris during demolition and construction activities. This waste would result in an incremental and temporary increase in solid waste disposal at landfills and other waste disposal facilities, occurring throughout the 24-month construction period.

The 9-acre project site would be cleared and graded prior to the start of construction and, thus, would not require extensive site clearing that would generate waste. Material that would need to be cleared from the project area would include bulky, heavy materials, such as concrete, wood, asphalt, and metals from removal of the railroad tracks, the existing maintenance building, and a portion of the western public parking lot and Seaport Boulevard to prepare for roadway widening. Green waste and dredge material would also be generated. Demolition materials would be hauled off-site for recycling or disposal in a landfill per requirements of AB 939, SB 1374, and the Redwood City Municipal Code. Asphalt would be taken to a recycling facility for recycling or reuse. Green waste would be separated and diverted from landfills through recycling, reuse, and composting. Dredge material would be taken to an off-site disposal site or beneficially reused at an off-site upland facility.

Some waste would be associated with new construction, such as trim scraps and green waste associated with installation of the landscaping; however, the amount of construction debris would be less than would be generated during the demolition phase. Additionally, construction activities generally produce cleaner materials than demolition and much of the construction debris that is generated, such as wood trimmings and green waste, could be diverted from landfills through recycling, reuse, and composting. Therefore, it is anticipated that any construction debris would easily be accommodated in landfills and recycling facilities throughout the region.

The proposed project would be required to comply with waste reduction and diversion requirements, which would reduce the amount of waste requiring disposal in a landfill. All solid waste generated during construction would be recycled or reused to the degree feasible in compliance with Redwood City requirements set forth in Chapter 9, Article XI of the Municipal Code, AB 939, and SB 1374. Redwood City requires a minimum of 60 percent of total construction and demolition waste and 100 percent of inert solids (non-liquid solid waste including, but not limited to, soil and concrete, that does not contain hazardous waste or soluble pollutants) to be recycled or salvaged. Further, AB 939, the California Solid Waste Management Act, requires each city in the State to divert at least 50 percent of their solid waste from landfill disposal through source reduction, recycling, and composting.

Local infrastructure is expected to accommodate the waste generated by demolition and construction related to the ferry terminal. As discussed in **Section 3.15.3.2.4**, approximately 85 percent of the solid waste collected in Redwood City is sent to Corinda Los Trancos (Ox Mountain) Sanitary Landfill. The Corinda Los Trancos Landfill has an estimated capacity of 17 million cubic yards of disposal capacity

remaining and has an estimated closure date of 2034.[75] As stated above, solid waste generation during construction of the ferry terminal components is expected to be minimal and waste disposal would be conducted in compliance with waste reduction and diversion requirements. Therefore, there is sufficient capacity at the Corinda Los Trancos Landfill to serve the project.

As discussed in Section 3.8, Hazards and Hazardous Materials, in the unlikely event that contaminated soils or materials are encountered, they would be excavated, transported, and treated (or disposed of) in accordance with applicable regulatory agencies.

Because solid waste generated during construction is expected to be limited in relation to the capacity of local infrastructure and the proposed project would comply with State and local regulations regarding solid waste recycling and diversion rates, construction of the ferry terminal and associated uses would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The impact would be less than significant.

3.15.5.4.1.2 Visitor-Serving Uses

As with the ferry terminal, construction of visitor-serving uses would generate a small amount of debris during demolition and construction activities, including the removal of the existing Shell Unloading Wharf parallel to the shore along Westpoint Slough, construction of buildings, installation of utilities, and installation of drought tolerant landscaping. Construction would occur on the cleared graded site and waste removal associated with site preparation and demolition would primarily be the removal of the Shell Unloading Wharf and green waste. Some excavation of soil would occur during installation of utilities and utility connections and deep pile foundations but these soils would primarily be reused on-site for backfill or would be hauled off site for recycling or reuse. Some asphalt would be demolished during installation and connections for underground utilities. Asphalt would be taken to a recycling facility for recycling or reuse. Green waste would be separated and diverted from landfills through recycling, reuse, and composting. Other demolition materials would be hauled off-site for recycling or disposal in a landfill per AB 939, SB 1374, and the Municipal Code, as discussed for the ferry terminal above.

Some waste would be associated with new construction, such as trim scraps and green waste. Much of construction debris that is generated from new construction, such as wood trimmings and green waste could be diverted from landfills through recycling, reuse, and composting. Therefore, it is anticipated that any construction debris would easily be accommodated in landfills and recycling facilities throughout the region.

As described for the ferry terminal, construction of the visitor-serving uses would be required to comply with waste reduction and diversion requirements, such as Chapter 9, Article XI of the Municipal Code that requires 60 percent of total construction and demolition waste and 100 percent of inert solids to be recycled or salvaged.

The Corinda Los Trancos Landfill has an estimated capacity of 17 million cubic yards and closure date of 2034 which can accommodate construction waste associated with the visitor-serving uses. Solid waste

[75] CalRecycle. No Date. SWIS Facility/Site Activity Details. Corinda Los Trancos Landfill (Ox Mnt)(41-AA-0002). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed May 20, 2025.

generation during construction of the visitor-serving would be conducted in compliance with waste reduction and diversion requirements and there is existing landfill capacity.

Construction of the visitor-serving uses would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The impact would be less than significant.

3.15.5.4.1.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

Waste generated during construction of the proposed project would result in an incremental and temporary increase in solid waste disposal at area solid waste disposal facilities, primarily the Corinda Los Trancos Landfill, which has sufficient capacity. Further, the proposed project would comply with State and local regulations regarding construction and demolition recycling and on-site recycling collection to assist the attainment of solid waste reduction goals. Therefore, construction of the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The impact would be less than significant.

3.15.5.4.2 Operations

3.15.5.4.2.1 Ferry Terminal

Operation of the ferry terminal would generate small amounts of recyclable and non-recyclable waste that may include cardboard, paper, glass, plastic, aluminum cans, diapers, and food waste. Additionally, green waste (e.g., leaves and trimmings) would be generated during landscape maintenance activities, which would be separated and diverted from landfills through composting or recycling for mulch.

The increase in solid waste associated with operation of the ferry terminal is expected to be less than three tons per year and would be associated with concessions offered on-board the ferries, use of the restroom, and items that may be brought in from off-site by crew, passengers, and other visitors and disposed at the ferry terminal site. The interim portable restroom and ferry terminal entry and parking lot would include waste and recycle bins for trash and recycle collection. Waste and recycle bins would also be located on the ferry vessels. Waste diversion is anticipated consistent with the existing waste diversion programs of Redwood City. As described above, the City has programs for meeting and exceeding the AB 939 landfill waste diversion requirement of 50 percent. Therefore, the proposed project would comply with the established diversion requirements.

As identified previously, solid waste would likely be disposed of in the Corinda Los Trancos Landfill. This landfill has an estimated capacity of 17 million cubic yards (roughly 17 tons depending on weight and volume of material) of disposal capacity remaining and has an estimated closure date of 2034.[76] It has maximum daily tonnage of 3,598 tons per day[77] which equates to 1,313,270 tons per year. Further, the San Mateo County 2024 CIWMP update determined that the County has 15 years of remaining disposal capacity and is meeting its goals for solid waste capacity and landfill diversion. Thus, minor increases in solid waste generation resulting from operation of the ferry terminal would not exceed the current

[76] CalRecycle. No Date. SWIS Facility/Site Activity Details. Corinda Los Trancos Landfill (Ox Mnt)(41-AA-0002). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed May 20, 2025.

[77] San Mateo County Health System. June 5, 2017. Solid Waste Facility Permit. Facility Number 41-AA-0002. Corina Los Trancos Landfill.

capacity. Operation of the ferry terminal would not create a need for additional solid waste disposal facilities to adequately handle solid waste generated during operations.

Operation of the ferry terminal and associated uses would not result in a net increase in project-related solid waste generation in excess of State or local standards, or in excess of the capacity of the local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Further, the proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste; therefore, the impact would be less than significant.

3.15.5.4.2.2 Visitor-Serving Uses

Operation of the visitor-serving uses would generate increased amounts of solid waste as compared to existing conditions associated with the operation of the new hotel, restaurant, office, and permanent restroom. Solid waste generated from these uses would likely include waste such as cardboard, paper, glass, plastic, aluminum cans, diapers, food waste, food service ware, and fats, oils, and grease. Additionally, green waste (e.g., leaves and trimmings) would be generated during landscape maintenance activities which would be separated and diverted from landfills through composting or recycling for mulch.

There would be a trash and recycle collection system for the visitor-serving uses. Food waste and fats, oils, and grease from the restaurant would be disposed of according to State and local regulations. Waste diversion is anticipated consistent with the existing waste diversion programs of Redwood City. As described above, the City has programs for meeting and exceeding the AB 939 landfill waste diversion requirement of 50 percent. Further, SB 1383 aims to reduce organic waste disposal in the State by 75 percent by 2025 and reduce at least at least 20 percent of currently discarded edible food for human consumption by 2025. Operation of visitor-serving uses would comply with the established diversion requirements.

As identified above, solid waste would likely be disposed of in the Corinda Los Trancos Landfill. This landfill has an estimated capacity of 17 million cubic yards of disposal capacity remaining and has an estimated closure date of 2034.[78] The visiting serving uses are expected to increase total solid waste generation by approximately 357.25 tons per year, as shown in **Table 3.15-3**, which is approximately 0.48 percent of the solid waste that was disposed of by Redwood City at Corinda Los Trancos Landfill in 2024 (see **Section 3.15.3.2.4**). Thus, increases in solid waste generation resulting from operation of the visitor-serving uses would represent a relatively minor increase in solid waste disposal and would not exceed the current capacity at the Corinda Los Trancos Landfill. Therefore, visitor-serving uses would not generate solid waste in excess of the capacity of local infrastructure during operations.

Operation of the visitor-serving uses would not result in a net increase in project-related solid waste generation in excess of State or local standards, or in excess of the capacity of the local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Further, operations would comply with federal, State, and local management and reduction statutes and regulations related to solid waste; therefore, the impact would be less than significant.

[78] CalRecycle. No Date. SWIS Facility/Site Activity Details. Corinda Los Trancos Landfill (Ox Mnt)(41-AA-0002). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed May 20, 2025.

Table 3.15-3 Estimate of Solid Waste Generation from Visitor-Serving Uses

Project Development Component	Total Solid Waste (tons/year)[1]
Hotel	109.5
Permanent Restroom	0.45
Restaurant	238
Office Space	9.3
Total	**357.25**

Note:
[1] Based on CalEEMod solid waste generation factors by land use (Appendix B of this Draft EIR).

3.15.5.4.2.3 Project Impact: Ferry Terminal and Visitor-Serving Uses

The proposed project's operations would include solid waste generated from ferry terminal operations and visitor-serving uses, such as cardboard, paper, glass, plastic, aluminum cans, diapers, food waste, fats, oils, and grease, and green waste. The estimated total annual solid waste generation is 360 tons which is approximately 0.5 percent of the solid waste that was disposed of by Redwood City at the Corinda Los Trancos Landfill in 2024. The landfill, which receives most of the solid waste in the City, has sufficient capacity to accommodate the solid waste generated by the proposed project. Further, operation of the proposed project would be required to comply with State and local regulations regarding on-site recycling collection and food waste reduction to assist the attainment of solid waste reduction goals. Green waste associated with landscape maintenance activities would be separated and diverted from landfills through composting or recycling for mulch. Therefore, operation of the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The impact would be less than significant.

3.15.5.4.3 Mitigation Measures

No mitigation is required for construction or operations.

3.15.5.4.4 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to this impact. The impact would be less than significant for construction and operations.

3.15.5.5 Cumulative Impacts

"[T]he incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, Section 15064(h)(1)). This analysis considers whether the cumulative impact is significant, as well as whether the proposed project's individual effect is cumulatively considerable. A significant cumulative impact would result if the combined impacts of the project and impact projections from adopted plans (refer to Section 3.0.4.1 of the Introduction to Chapter 3) would be significant when considered together, even if not independently significant.

The geographic context for assessing cumulative environmental impacts associated with utilities is the service area associated with each of the water, wastewater, solid waste disposal, electricity, natural gas, and telecommunication agencies/companies that serve the project site. The cumulative impacts analysis evaluates whether the provision of utility services for the growth projected to occur in the future, along with the currently proposed project, would exceed the capacity of existing or planned utility infrastructure, requiring the construction of new infrastructure which would cause significant

environmental effects not already addressed as part of the proposed project or otherwise anticipated in conjunction with each agency's growth plans.

3.15.5.5.1 Water

The geographic context for assessing cumulative environmental impacts associated with potable water is the service area of the SFPUC, which provides water supplies to 27 cities and public water agencies in Alameda, Santa Clara, and San Mateo counties, including Redwood City.[79] The planning of future potable water supplies for the subject service area is documented in the 2025 SFPUC UWMP, adopted on June 23, 2026. Water demand projections in the 2025 SFPUC UWMP are based on housing projections provided by the San Francisco Planning Department for the City of San Francisco retail service area and employment forecasts from the Association of Bay Area Governments (ABAG). The 2025 SFPUC UWMP states that Redwood City has an ISG of 10.93 MGD of water. The City's actual 2025 purchases amounted to 7.43 MGD. Between projected years 2025-2050, the City is projected to purchase no more than 8 MGD.[80] Additionally, the 2025 Redwood City UWMP projects future water demands through 2050 based on population and employment projections within the City's service area, consistent with the City's 2010 General Plan and the City's approved and anticipated projects. The 2025 Redwood City UWMP states that the City's total projected water demand for 2050 would be 9,628 AFY. The City's projected water supply for 2050 includes 12,243 AFY from SFPUC and 3,238 AFY from recycled water sources.[81] As such, the future potable water supply planning reflected in both the adopted 2025 SFPUC UWMP and 2025 Redwood City UWMP is considered to address the future demands associated with the current adopted growth projections in normal water years.

As discussed under Impact 3.15-2, the proposed project would install new water utilities on the project site, and increase potable water demand for the project site. The increase in potable water demand due to the proposed project, totaling nearly 13.2 million gallons per year or 40.4 AFY, would be minor relative to, and thus would not negatively impact, future water supply; SFPUC would continue to manage its water demand through implementation of its retail water conservation program, which focuses on reducing urban water use.

As discussed in **Section 3.15.5.2**, construction and operation of the proposed project would not significantly deplete municipal water supplies during normal, dry, or multiple dry years. For SFPUC, there are no anticipated shortages of water supplies during normal years. However, in a single dry year and multiple dry year event, there would be an anticipated shortage of water supplies depending on Bay-Delta Plan Amendment implementation. With Bay-Delta Plan Amendment implementation, a single dry year is anticipated to result in a shortage of retail water supplies by 9 to 17 percent, while a multiple dry year event is anticipated to result in a retail water supply shortage of up to 29 percent by the fifth consecutive

[79] San Francisco Public Utilities Commission (SFPUC). 2025. Surface Water: Water from Rain and Snowmelt webpage. Available: https://www.sfpuc.gov/about-us/our-systems/water-system. Accessed May 12, 2025.

[80] San Francisco Water Power Sewer. June 2025. 2025 Urban Water Management Plan for the City and County of San Francisco. Prepared by the San Francisco Public Utilities Commission. Available: https://www.sfpuc.gov/sites/default/files/documents/2025-UWMP-Body.pdf.

[81] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

dry year at 2050 levels of demand.[82] Without the Bay-Delta Plan Amendment, the SFPUC would have sufficient supplies to meet projected retail and wholesale demands under normal, single dry year, or multiple dry year conditions. For the City, significant water supply shortfalls are currently projected in future single and multiple dry years because of the Bay-Delta Plan Amendment implementation. Under this scenario, SFPUC would not meet its contractual obligations and Redwood City's forecasted demands during droughts.[83] However, the City's projections assume the worst-case scenario in which the Bay-Delta Plan Amendment is implemented without the SFPUC and the SWRCB reaching a Voluntary Agreement and does not account for the implementation of SFPUC's Alternative Water Supply Program (AWSP). The SFPUC has initiated the AWSP to meet future water supply challenges by investigating and planning for diverse, non-traditional water supply projects.

However, even with implementation of AWSP, there would still be a supply shortfall to meet projected needs associated with implementation of the Bay-Delta Plan Amendment. SFPUC will continue to plan, develop, and implement all potential projects that can bridge the anticipated water supply gap during droughts.[84] Outside of the AWSP, other regional projects would provide water supply options, including groundwater banking projects that would provide the SFPUC with some additional water supply in dry years, inter-basin collaborations including a partnership between interests on the Tuolumne River (such as the SFPUC) and those in the Stanislaus River, and dry-year transfers. Additionally, the SFPUC's Alternative Water Supply Plan,[85] published in February 2024, includes a planning framework for the SFPUC to continue developing projects that can best meet anticipated water supply needs and includes recommendations such as water rationing, water transfer agreements, and evaluating additional treatment opportunities in addition to implementation of on-going water system improvement program projects.

Further, in the event of a future water supply shortage, the City's WSCP would go into effect, which focuses water conservation efforts on reducing discretionary water uses (i.e., cutbacks in outdoor potable water use) while preserving uses essential to health and safety (i.e., drinking, cooking, sanitation).[86] In addition to demand reduction actions, WSCP identifies that the City will continue to address apparent water loss through improvements to metering accuracy, data management, and billing practices, which may improve accuracy and contribute to more effective water use management during shortage conditions. The WSCP focuses on potable water uses because it identifies that there are ample supplies of recycled water available even during a drought.

SFPUC's and the City's respective UWMPs and SFPUC's AWSP and the City's WSCP, include plans for addressing potential water supply shortfalls, including through water rationing and water transfers. The adopted growth projections and proposed project together would not result in insufficient water supplies

[82] San Francisco Water Power Sewer. June 2025. 2025 Urban Water Management Plan for the City and County of San Francisco. Prepared by the San Francisco Public Utilities Commission. Available: https://www.sfpuc.gov/sites/default/files/documents/2025-UWMP-Body.pdf.

[83] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[84] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

[85] San Francisco Public Utilities Commission (SFPUC). February 2024. Alternative Water Supply Plan. Available: https://www.sfpuc.gov/sites/default/files/about-us/policies-reports/AWS%20Report%20Feb2024_web.pdf.

[86] City of Redwood City. June 2026. 2025 Urban Water Management Plan for City of Redwood City. Prepared by EKI Environment & Water. Available: https://www.redwoodcity.org/home/showpublisheddocument/31495/639197193761200000.

available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years and result in the construction of new infrastructure which would cause significant environmental effects. The forecasted growth and increased water demand coupled with the proposed project would not result in significant impacts related to water demand. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.2 Wastewater

The geographic context for assessing cumulative environmental impacts associated with wastewater is the SVCW service area. As described in **Section 3.15.3.2.2**, the project site is located within the SVCW service area, and wastewater generated by the proposed project would be conveyed to the SVCW network and ultimately be treated at the SVCW treatment plant. The SVCW wastewater treatment plant has a current capacity of 29 MGD for ADWF. The City of Redwood City has a current allotment of 13.8 MGD and generates approximately 9 MGD.[87] The proposed project is projected to generate an average of approximately 11.9 million gallons per year of wastewater, or 0.03 MGD. Additionally, the SVCW wastewater treatment system is undergoing major updates through the Regional Environmental Sewer Conveyance Upgrade (RESCU) Program, which aims to rehabilitate, repurpose, and construct new facilities to improve the capacity and reliability of the system.[88] Given that there is existing capacity at the SVCW wastewater treatment plant and planning efforts underway to ensure future capacity, it is anticipated that the SVCW wastewater treatment plant has sufficient capacity to accommodate the projected increase of wastewater resulting from the proposed project and planned future growth within the SVCW service area. Furthermore, existing development would also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures (SB 407 [2009] Civil Code Sections 1101.1 et seq.).

The adopted growth projections and proposed project together would not exceed the capacity of local wastewater infrastructure and result in the construction of new infrastructure which would cause significant environmental effects. Therefore, implementation of the proposed project would not result in wastewater treatment systems having insufficient capacity. The forecasted growth and increased wastewater generation coupled with the proposed project would not result in significant impacts related to wastewater generation. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.3 Stormwater

The geographic context for assessing cumulative environmental impacts associated with stormwater is the service area for the Redwood City Public Works Services Department, which oversees the maintenance, operation, and repair of the City's stormwater system. As the population of the City increases, additional development is expected to occur that may increase the area of impervious surfaces in the City, particularly for infill development on currently vacant sites, thus increasing stormwater runoff levels. However, similar to the proposed project, future development projects would comply with the San Francisco Bay Region MRP 3 Permit or Phase II Small MS4 permit and implement BMPs to control stormwater runoff. Additionally, as with the proposed project, new development in City would be

[87] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan/.
[88] Silicon Valley Clean Water. 2026. The RESCU Program website. Available: https://svcw-rescu.org/. Accessed August 13, 2026.

required to comply the Redwood City Municipal Code and Engineering Standards related to stormwater management.

The adopted growth projections and proposed project together would not result in the construction of new infrastructure which would cause significant environmental effects. Therefore, implementation of the proposed project would not result in insufficient stormwater drainage. The forecasted growth and increased stormwater generation coupled with the proposed project would not result in significant impacts related to stormwater generation. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.4 Solid Waste and Recycling

The geographic context for assessing cumulative environmental impacts associated with solid waste is San Mateo County. Solid waste management planning within San Mateo County is addressed through the San Mateo County 1999 CIWMP. The San Mateo County Public Works Department is responsible for preparing, administering, and reporting on the 1999 CIWMP.

As discussed in **Section 3.15.3.2.4**, the Corinda Los Trancos Landfill is estimated to have a remaining capacity of 17,240,000 cubic yards and has maximum daily tonnage of 3,598 tons per day which equates to 1,313,270 tons per year. As discussed in **Section 3.15.5.4.2.3**, the proposed project is estimated to generate 360 tons of solid waste annually, representing approximately 0.5 percent of the solid waste that was disposed of by Redwood City at the Corinda Los Trancos Landfill in 2024.

PRC Sections 41770 and 41822, and Title 14, CCR Section 18788 require that the CIWMP be reviewed and revised, if necessary, every five years. The most recent Five-Year Review Report was published in 2024. The Report details the population changes in San Mateo County between 1990 and 2024, with demographic data published by the State Department of Finance (DOF). The Report found that, despite population increases, the County's capacity at its landfill and waste reduction and recycling/composting programs indicates that the CIWMP does not require revisions. Additionally, the Report determined that the Corinda Los Trancos (Ox Mountain) Sanitary Landfill's compacting technology continues to improve, extending the landfill's capacity and longevity despite increases in population.[89]

The adopted growth projections and proposed project together would not result in a net increase in solid waste generation that could not be accommodated by existing or permitted regional landfills or other disposal facilities, or conflict with solid waste policies and objectives intended to help achieve federal, State, or local waste statutes and regulations. Therefore, implementation of the proposed project would not result in solid waste disposal facilities having insufficient capacity. The forecasted growth and increased solid waste generation coupled with the proposed project would not result in significant impacts related to solid waste generation. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.5 Electricity and Natural Gas

The geographic context for assessing cumulative environmental impacts associated with electricity and natural gas is the PG&E service area within San Mateo County. PG&E provides electricity and natural gas services to Redwood City and other areas in San Mateo County covered by the adopted ABAG growth

[89] County of San Mateo. 2024. Five-Year CIWMP/RAIWMP Review Report. Available: https://www.smcsustainability.org/wp-content/uploads/CIWMP-Five-Year-Review-Report-2024.pdf.

projections. PG&E is subject to the requirements set forth and/or enforced by the CPUC. Any necessary electrical system infrastructure improvements would occur in accordance with the rules and regulations of PG&E on file with and approved by the CPUC. Similarly, any necessary infrastructure improvements to natural gas service by PG&E for other growth and development within San Mateo County would occur in compliance with the rules and regulations of PG&E on file with and approved by the CPUC.

As discussed in **Section 3.15.5.1.2.1**, the ferry terminal, including street and parking lot lighting and EV charging stations, is estimated to consume approximately 893,931 kWh/year of electricity. Natural gas usage would not be required for operation of the ferry terminal. As discussed in **Section 3.15.5.1.2.2**, the visitor-serving uses are estimated to consume 2.3 million kWh/year of electricity and 8.3 million KBtu of natural gas. PG&E would not require additional capacity work to serve the proposed project's electricity needs.[90] The natural gas usage would be typical of hotel and restaurant uses and negligible compared to PG&E's total natural gas demand.

As the population of the San Mateo County is projected to grow, it is anticipated that the demand for electricity and natural gas will grow concurrently. New building development would be subject to the CalGreen and State Energy Conservation Standards contained in Title 24, which would reduce cumulative energy demand where they replace existing structures.

The adopted growth projections and proposed project together would not exceed the capacity of energy transmission facilities and result in the construction of new infrastructure which would cause significant environmental effects. Therefore, implementation of the proposed project would not result in electric and natural gas facilities having insufficient capacity. The forecasted growth and increased electricity and natural gas usage coupled with the proposed project would not result in significant impacts related to electricity and natural gas. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.6 Telecommunications

The geographic context for assessing cumulative environmental impacts associated with telecommunications is the service area for AT&T, Verizon, Wireless Silicon Valley, and other service providers in the area. These providers would serve other areas in San Mateo County covered by the adopted ABAG growth projections. Telecommunication service providers are subject to requirements set forth and/or enforced by the CPUC. Any necessary improvements to telecommunications facilities would occur in accordance with rules of practice and procedure as set forth by CPUC.

The project site would require new telecommunication connections to the existing network to serve the proposed project, however, the operation of the telecommunication facilities for the proposed project is not anticipated to require the relocation or construction of new or expanded telecommunications network facilities.

The adopted growth projections and proposed project together would not exceed the capacity of telecommunications facilities and result in the construction of new infrastructure which would cause significant environmental effects. Therefore, implementation of the proposed project would not result in telecommunications facilities having insufficient capacity. The forecasted growth and increased

[90] Rajappa, Sunil. Division Operations Specialist – Bay Area Region, Pacific Gas and Electric Company. Personal Communication. February 2, 2025.

telecommunication usage coupled with the proposed project would not result in significant impacts related to telecommunications. The proposed project's contribution to an individual effect would not be cumulatively considerable.

3.15.5.5.7 Mitigation Measures

Mitigation is not required.

3.15.5.5.8 Significance of Impact After Mitigation

As indicated above, no mitigation is required relative to cumulative impacts. The cumulative impacts related to utilities would be less than significant.

3.15.6 Significant Unavoidable Impacts

There would be no significant and unavoidable impacts to utilities or service systems associated with construction and operation of the proposed project.

Chapter 4
Alternatives Analysis

4.1 Introduction

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) include a discussion of a reasonable range of project alternatives that would "feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Within that context, this chapter discusses alternatives to the proposed project.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6(a) through (f)) are excerpted below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- "An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible." (15126.6(a))
- "…the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." (15126.6(b))
- "The specific alternative of 'no project' shall also be evaluated along with its impact." (15126.6(e)(1)) "The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." (15126.6(e)(2))
- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making." (15126.6(f))

- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries,…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." (15126.6(f)(1)). CEQA also defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (15364)
- For alternative locations, "[o]nly locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." (15126.6(f)(2)(A)). However, alternative sites may not always be needed for site specific EIRs. *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 492 citing *Citizens of Goleta Valley v. Bd. of* Supervisors, 52 Cal. 3d 553, 573 (1990) ["reconsideration of regional land-use policies, in the context of a project specific EIR, is the very antithesis of long-term comprehensive planning."]
- "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location." (15126.6(f)(2)(B))
- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." (15126.6(f)(3))

The following sections discuss the significant impacts of the proposed project as identified in Chapter 3, Environmental Analysis, the objectives of the proposed project, alternatives considered but rejected, and the alternatives carried forward for further consideration in this EIR, including the No Project Alternative. The discussion of the alternatives carried forward includes an evaluation of the environmental impacts and identification as to whether such alternatives would avoid or substantially lessen any of the significant environmental impacts associated with the proposed project. Also included in this chapter is identification of the environmentally superior alternative.

4.2 Significant Impacts of the Proposed Project

The alternatives in this chapter have been selected based on Section 15126.6 of the CEQA Guidelines discussed in **Section 4.1** to evaluate the "no project" alternative and means for avoiding or substantially reducing the significant impacts of the proposed project identified in Chapter 3, Environmental Analysis.

4.3 Project Objectives

The underlying purpose of the proposed ferry terminal project is to implement the expansion of ferry service as generally identified in the Water Emergency Transportation Authority's (WETA's) 2050 Service Vision and Expansion Policy and 2016 Strategic Plan and the Port's 2020 Vision Plan, thereby providing a new Bay Area transit option and encouraging commercial and recreational uses. Specific project objectives are identified below.

- Extend multi-modal transportation solutions that ease regional traffic congestion, reduce per capita vehicle miles traveled and greenhouse gas emissions, and increase the shoreline accessibility and appeal.

- Provide an efficient alternative mode of transportation for transit dependent communities in and around Redwood City, San Francisco, and Oakland.
- Expand emergency response capabilities. This includes enhancing the Federal Emergency Management Agency emergency response network for the San Francisco Bay area, providing an alternative form of transit that would operate in the case of an emergency event that disables roads, other transit, bridges, and/or tunnels, and expanding marine mutual aid in San Francisco Bay.
- Utilize the 9.2-acre ferry terminal parcel to capitalize on an opportunity to create a Port of Redwood City destination for the local community and visitors that better connects the city to the waterfront and builds economic opportunities for Redwood City.
- Expand visitor-serving uses to promote commercial and recreational activity within the Port thereby activating the shoreline.
- Provide infrastructure sufficient to accommodate WETA's transition to a transit service that is powered by zero-emission technology.
- Increase the Port's resilience to rising sea levels.

4.4 Alternatives Considered but Rejected

4.4.1 Alternative Location

A Redwood City – San Francisco route was identified in WETA's Implementation and Operations Plan (IOP)[1] prepared in 2002 for the expansion of ferry service in the San Francisco Bay Area and evaluated in a 2003 Program EIR.[2] Since that time, several studies have been performed to assess various locations and designs for the Redwood City Ferry Terminal. The first planning study was completed in 2007,[3] which identified three potential terminal sites: Wharf 5, F-Dock, and the 9.2 acre project site with a terminal concept at the north side of the site in Westpoint Slough. The ferry terminal concept along Westpoint Slough was chosen as the preferred site because it had the fewest major disadvantages related to environmental impacts and other factors, such as ridership and operational efficiency. This determination was confirmed in a feasibility study conducted in 2012.[4]

A Ferry Financial Feasibility Study and Cost-Benefit and Economic Impact Analyses was also conducted in in 2020 (2020 Feasibility Study and Cost-Benefit Analyses).[5] As a part of the 2020 study, the Port's engineering consultant, COWI, reviewed the 2012 feasibility study. The 2020 study reconfirmed that the

[1] WETA (formerly Water Transit Authority). 2002. A Strategy to Improve Public Transit with an Environmentally Friendly Ferry System: Final Implementation & Operations Plan.

[2] WETA (formerly Water Transit Authority). June 2003. Expansion of Ferry Transit Service in the San Francisco Bay Area Final Program Environmental Impact Report. Prepared by URS Corporation. Available: https://berkeleypierferryproject.com/wp-content/uploads/2026/02/WETA_2003_Ferry-Transit-Service-Expansion-EIR.pdf.

[3] Port of Redwood City. 2007. Port of Redwood City Ferry Terminal Locational Analysis, Environmental Assessment, & Conceptual Design. Prepared by CHS Consulting Group. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[4] WETA. July 2012. Redwood City Ferry Terminal - Site Feasibility Report (Draft). Prepared by KPFF Consulting Engineers. Available: https://www.redwoodcity.org/home/showpublisheddocument?id=18035.

[5] City of Redwood City. October 2020. Ferry Financial Feasibility Study & Cost-Benefit and Economic Impact Analyses. Prepared by CDM Smith. Available: https://weta.sanfranciscobayferry.com/sites/weta/files/weta-public/publications/RWCDraftFinalReport_20201028.pdf.

Pacific Shores/Westpoint Slough location was a feasible location. The 2020 study further identified that a ferry terminal in Redwood Creek at the west end of the project site would be feasible. This was the first consideration of a ferry terminal at the west end of the project site. The investigation for the 2020 Feasibility Study and Cost-Benefit Analyses determined that the Redwood Creek/west end option would greatly reduce the need for dredging due to the existing navigation channel and it would provide easier maneuvering in and out of the berth, thus becoming the proposed project evaluated in this EIR. Based on the findings from previous evaluations and further analysis that is summarized below, other locations for the ferry terminal are screened out as infeasible from further review. The visitor-serving uses would complement the ferry terminal by increasing active use of the shoreline and providing a destination for visitors and residents that is co-located with the ferry terminal and does not limit operations of the Port. Therefore, alternative sites for the visitor-serving uses are not feasible.

A summary of the alternative locations considered but determined to not be feasible for the ferry terminal is provided below. The locations are shown on **Figure 4-1**.

4.4.1.1 Westpoint Slough Location

The Westpoint Slough location would be a dual berth ferry terminal on the north side of the project site along Westpoint Slough. This location was considered in the 2007 Port of Redwood City Ferry Terminal Locational Analysis, Environmental Assessment, & Conceptual Design and confirmed in the 2012 Redwood City Ferry Terminal Site Feasibility Report because it had the fewest disadvantages compared to other locations being considered at the time (Wharf 5 and F-Dock). The proposed project's ferry terminal location was not considered in the 2007 or 2012 studies.

The 2007 planning study identified that the major constraint of the Westpoint Slough location is the width of the slough at low tide, which would impact maneuverability of ferry vessels. The study further identified that this constraint could be fixed through the dredging of approximately 17,000 cubic yards of material from the slough.

Dredging needed for the proposed project is estimated at approximately 11,500 cubic yards of material (including a 15 percent compaction contingency), some 6,500 cubic yards less than the Westpoint Slough location. The 2007 planning study does not specify if the estimate of 17,000 cubic yards of dredging includes a compaction contingency. If a 15 percent contingency is added to this amount, it would be an additional 2,550 cubic yards or 19,550 cubic yards in total. Thus, the initial dredging amount is greater than for the proposed project. The 2007 report does not address the need for maintenance dredging; however, it assumed that maintenance dredging for the Westpoint Slough location would be similar to the proposed project or greater depending on sediment accrual rates. Thus, this concept has a greater need for initial dredging as compared to the proposed project, which would result in somewhat higher temporary air pollutant emission and health risk impacts during construction, and it would have similar or greater air pollutant emissions associated with maintenance dredging during operations. Removal of the existing Shell Unloading Wharf located along the northern edge of the project site within Westpoint Slough would also be required during project construction, which would increase air pollutant emissions and in-water construction disturbance during ferry terminal construction as compared to the proposed project when this removal would take place during construction of the visitor-serving uses.



Figure 4-1

Port of Redwood City Ferry Terminal Project

ALTERNATIVE FERRY TERMINAL LOCATIONS CONSIDERED BUT REJECTED

The 2007 study also found that the Westpoint Slough location would have impacts on adjacent wetlands, habitat, and wildlife provided by Greco Island, including tidal wetlands and waters, special status species, and Essential Fish Habitat. To reduce impacts on Greco Island and biological resources, the 2007 study identified that dredging could be conducted only along the south shore of the slough away from the island. However, biological resources would still be impacted from construction of the terminal and operation of ferry vessels due to the site's closer proximity to Greco Island as compared to the proposed project.

Because this Westpoint Slough location would include a ferry terminal on the northern part of the project site, the visitor-serving uses would need to be shifted south toward the adjacent CEMEX property. This would place those uses closer to industrial operations that involve noise and lighting from 24-hour outdoor equipment, trucking, and shipping activities thereby reducing the quality, comfort, and overall appeal of the visitor-serving environment. The shift would also diminish the site's optimum views toward the Bay, limiting the project's ability to create an attractive, engaging waterfront setting consistent with the underlying objective to establish a new Port waterfront destination that encourages commercial and recreational uses pursuant to the 2020 Vision Plan.

Placing visitor-serving uses adjacent to heavy industrial activity would also constrain the project's ability to activate the shoreline, enhance public access, and promote active commercial and recreational uses, as envisioned in the Vision Plan. The reduced visibility, proximity to industrial operations, and disrupted waterfront orientation would undermine the objective to utilize the 9.2-acre ferry terminal parcel to create a community and visitor destination that better connects Redwood City to the waterfront and supports economic development. In addition, relocating visitor-serving amenities away from the main waterfront edge would limit opportunities to improve multi-modal connections, extend the Bay Trail, and create safe, appealing public spaces for ferry passengers and other users - key goals of the Vision Plan.

These factors would also reduce the feasibility of establishing hotel, dining, or other commercial visitor-serving uses intended to draw residents and visitors to the waterfront, resulting in land use incompatibilities and weakening the site's capacity to serve as an economic anchor. Accordingly, this alternative would not fully meet project objectives to promote commercial and recreational activity within the Port or to create a destination for the community and visitors that builds economic opportunities for Redwood City.

In conclusion, the Westpoint Slough location would not reduce impacts as compared to the proposed project and would result in increased dredging and greater impacts on biological resources given the proximity to Greco Island. Further, it would not fully meet project objectives to promote commercial and recreational activity within the Port and to create a destination for the community and visitors that builds economic opportunities as visitor-serving uses would be in a less desirable location near industrial Port uses. Thus, the Westpoint Slough location is not considered to be feasible and was rejected from further consideration.

4.4.1.2 Wharf 5 Location

The Wharf 5 location is at an existing cement wharf south of the proposed project site along Redwood Creek Channel, off Beeger Road approximately 0.7 mile south of the project site. The Wharf 5 site is an approximately 0.69-acre area used for terminal storage. The existing wharf is 750 linear feet with two access ramps that can be used by large vessels. This length is sufficient to provide for berthing of two ferry vessels front to back.

Using this existing wharf would reduce the need for in-water construction, including pile driving and associated noise impacts or other disruption to marine species, which would reduce construction impacts as compared to the proposed project. However, the existing wharf does not conform to WETA specifications, including freeboard height,[6] security needs which require a secured entry to the ferry berths, and space to accommodate power electronics and electrical charging equipment for a possible future transition to electric battery powered ferry vessels.

Therefore, because it does not meet WETA specifications, a wharf replacement would be required. Because of the security needs, the new wharf would no longer be accessible to other users.

Because demolition and replacement of the wharf would be required to conform to WETA standards, there would be increased in-water construction activities and duration for demolition as compared to the proposed project. This would result in greater temporary impacts, including increased turbidity and disturbance of bay sediments, elevated underwater noise levels affecting marine species, higher construction-related air pollutant emissions, and a larger overall footprint of in-water disturbance.

Further, the Wharf 5 location is closer to sensitive receptors, including liveaboards and multi-family residential units, which would result in greater temporary noise and health risk impacts. However, no increase in surface water coverage/shading or removal of sensitive aquatic habitat would occur. According to the Port's 2020 Vision Plan, the depth of the water at this location is unknown; therefore, the need for dredging is undetermined.

There are existing utilities on-site and so the Wharf 5 location would not require the relocation, removal, or installation of utilities. However, the site is adjacent to industrial marine uses and activities and the Portside Business Park. Establishing a ferry terminal at this site would cause land use conflicts for ferry riders and the ferry vessels given the existing uses in proximity.

The site would be accessed from Frontage Road, which is primarily used by truck traffic accessing the Port and would result in a safety conflict. Further, there is no sidewalk or bicycle lane on Frontage Road or sufficient area to widen the right-of-way due to proximity of the railroad tracks and Seaport Boulevard. The entrance would cross the existing railroad tracks resulting in the need for installation of a crossing gate. The Wharf 5 site is approximately 0.7 acre, which is not sufficient to accommodate parking and circulation for the ferry terminal. As with the proposed project, the ferry terminal for Wharf 5 would require 250 parking spaces for ferry users. Assuming half of the project site (approximately 0.35 acre) could be used for parking, an estimated 50 spaces would be accommodated by the Wharf 5 site. An additional area of two to three acres near the Wharf 5 location would be required to accommodate the additional approximately 200 parking spaces for the ferry terminal. A minimum of two additional acres would be required to establish the same square-footage of visitor-serving uses with shared parking and integrated hotel parking as the proposed project in proximity to the ferry terminal and waterfront. There is currently an unused parcel southeast of the Wharf 5 location that is just under 8 acres and could accommodate additional parking area and the visitor-serving uses. However, this parcel is planned for future Port-priority uses such as cargo laydown, maritime-dependent storage, and other terminal support functions that require secure, uninterrupted access for heavy equipment, truck circulation, and round-the-clock industrial operations. These uses preempt ferry terminal and visitor-serving uses because

[6] The height of the dock above the waterline.

they typically require large contiguous areas for long-term staging of materials or equipment, rely on safety-restricted zones that cannot be shared with the public, and necessitate controlled-access conditions incompatible with public parking, passenger circulation, or visitor-serving activity. For example, a cargo laydown area may need to store oversized or hazardous materials or support frequent truck and forklift movements, conditions that are fundamentally at odds with project objectives related to introducing public access or ferry-support facilities. Additionally, the parcel lacks direct waterfront access or views, making it unable to support project objectives related to shoreline activation and creating a cohesive public waterfront destination.

With reconstruction of the wharf, the site could be raised for sea level rise. If the vacant site to the southeast were used for parking and the visitor-serving uses and was also elevated, the raising of the site would have similar air pollutant emissions as elevating the entire 9-acre project site that would occur under the proposed project. These emissions would occur in closer proximity to sensitive receptors and thus, the health risk impact would be greater. Raising the vacant site to the southeast would protect that site from rising sea levels, however, the site is not on the shoreline and would not fully support the project objectives related to shoreline activation or increasing the Port's resiliency to rising sea levels.

The Wharf 5 location would avoid temporary construction impacts associated with lane closures and tree removal due to the widening of the Seaport Boulevard loop road. However, as mentioned above, access improvements to the Wharf 5 location would be required, including consideration for providing safe pedestrian and bicycle access which would also have temporary construction impacts, such as disruption to trucks accessing the Port. Further, the operational benefits associated with the widening of Seaport Boulevard for improved pedestrian and bicycle access and the expansion of the Bay Trail would not occur. Therefore, use of the Wharf 5 location would not achieve most of the project objectives to enhance public access along the waterfront, increase the project area's accessibility and improve multi-modal connections, and create integrated synergy and functionality by connecting multi-modal access and visitor-serving uses, because the new sidewalk, bicycle trail and expanded Bay Trail improvements would not occur and establishment of the visitor-serving uses would occur on a separate parcel without direct public access to the waterfront. Further, the Wharf 5 location would not promote recreational activity within the Port, because use of the new terminal that would replace the existing wharf would be limited to only ferry users.

The Wharf 5 location would also be inconsistent with the objectives to create a new Port waterfront destination, because (1) visitor-serving uses would be physically separated from the waterfront edge, limiting their ability to activate the shoreline and offer meaningful public connection to the Bay; (2) the ferry terminal site would not be utilized to create a cohesive destination that connects the central part of Redwood City to the waterfront, reducing economic development potential; and (3) opportunities to improve multi-modal access and extend the Bay Trail at the project site would not occur. This would also eliminate those benefits to users of the waterfront park and others accessing the area by bicycle, foot, or other non-vehicular means. As a result, the Wharf 5 location would not meet the proposed project's guiding objectives for activating the waterfront, enhancing public access, or establishing a vibrant visitor-serving destination.

The Wharf 5 location would increase the ferry travel time by approximately 5 minutes, which would reduce ridership due to the longer commute time. The longer travel time would increase operational air pollutant emissions from the diesel-powered vessels and the reduced ridership would have fewer benefits from reduced vehicle miles traveled (VMT) and associated reduction of air pollutant and greenhouse gas (GHG) emissions than the proposed project. Further, Wharf 5 is located in an area with greater vessel traffic, including recreational boats and other Port activities, which increases the potential for vessel conflicts. Thus, the Wharf 5 location would not fully meet project objectives to extend multi-modal transportation solutions that ease traffic congestion and reduce per capita VMT and GHG emissions.

In conclusion, given the site's smaller size and site access constraints, increased potential for vehicle and vessel conflicts, longer ferry travel time, need for wharf replacement, reduced public waterfront access, and fewer air quality, GHG, and transportation benefits, development of the ferry terminal at the Wharf 5 location would not meet most of the project objectives, i.e., it would not enhance public access along the waterfront, improve multi-modal access, promote active commercial and recreational shoreline uses within the Port, extend multi-modal transportation solutions that ease traffic congestion and reduce VMT and GHG emissions, and to increase the Port's resiliency to sea level rise. Thus, the Wharf 5 location alternative is not considered to be feasible and was rejected from further consideration.

4.4.1.3 F-Dock Location

F-Dock is an existing dock approximately one mile from the project site that is designated as a guest dock and is open for public use. It is located at the southern end of Port property off Seaport Court in an area used primarily for commercial and recreational purposes. It is adjacent to a public fishing pier and the Redwood Landing Marina, which has 28 boat slips. It is also near the Port of Redwood City Municipal Marina and opposite the channel from a public launch ramp and several boating and sailing clubs. The dock is approximately 200 linear feet with one ramp.

Similar to the Wharf 5 location discussed in more detail above, if the existing dock is used for the ferry terminal, in-water construction impacts would be reduced compared to the proposed project. However, F-Dock would require demolition and replacement with a new terminal to meet WETA requirements, which would increase construction-related impacts including greater in-water demolition activity and associated turbidity and sediment disturbance; elevated underwater noise levels from pile removal and installation affecting marine species; increased construction-related air pollutant emissions from the additional equipment and extended construction duration; and increased potential disturbance of adjacent marina users and nearby recreational areas.

Further, the F-Dock location is closer to sensitive receptors, including liveaboards and multi-family residential units, which would result in greater temporary noise and health risk impacts. However, no increase in surface water coverage/shading or removal of sensitive aquatic habitat would occur.

The new terminal would include a secured entry to the ferry berths, which would eliminate the existing public use of the dock. The existing San Francisco Bay Conservation and Development Commission (BCDC) permit identifies that this site has an authorized use for public shoreline access and a guest dock.[7] Eliminating or restricting this public use would violate terms of the permit. Additionally, the elimination

[7] BCDC. August 29, 2014. Permit No. M1987.043.03. Amendment No. Three.

of public access to the dock would conflict with San Francisco Bay Plan[8] Policies pertaining to providing recreational facilities and public access to the waterfront, such as Recreation Policy #9 and Public Access Policy #7:

- **Recreation Policy #9**

  Ferry terminals may be allowed in waterfront park priority use areas and marinas and near fishing piers and launching lanes, provided the development and operations of the ferry facilities do not interfere with current or future park and recreational uses, and navigational safety can be assured. Terminal configuration and operation should not disrupt continuous shoreline access. Facilities provided for park and marina patrons, such as parking, should not be usurped by ferry patrons. Shared parking arrangements should be provided to minimize the amount of shoreline area needed for parking.

- **Public Access Policy #7**

  Whenever public access to the Bay is provided as a condition of development, on fill or on the shoreline, the access should be permanently guaranteed. This should be done wherever appropriate by requiring dedication of fee title or easements at no cost to the public, in the same manner that streets, park sites, and school sites are dedicated to the public as part of the subdivision process in cities and counties. Any public access provided as a condition of development should either be required to remain viable in the event of future sea level rise or flooding, or equivalent access consistent with the project should be provided nearby.

Eliminating public use of F-Dock would require reconstruction of a replacement facility elsewhere to provide the public with equivalent public access to the water, which would result in greater adverse impacts including increased in-water construction activities and associated turbidity and sediment disturbance; heightened underwater noise levels affecting marine species; potential removal or disturbance of existing shoreline vegetation or habitat; construction-related air pollutant emissions; temporary disruptions to nearby recreational users; increased fill and shading of sensitive aquatic habitat; and new visual and aesthetic impacts depending on the location and design of the replacement facility. Further, given the many recreational uses concentrated in the local area, the operation of ferries at F-Dock would result in other conflicts with recreational use of the channel related to safety and congestion.

As with the Wharf 5 location, the F-Dock location would not require installation of utilities and it would avoid temporary construction impacts associated with the widening of the Seaport Boulevard loop road. However, the operational benefits associated with the widening of Seaport Boulevard for improved pedestrian and bicycle access and the expansion of the Bay Trail would not occur. Thus, the F-Dock location would not achieve project objectives to enhance public access along the waterfront, improve multi-modal access, and promote recreational activity within the Port. In addition, the F-Dock location would not support key objectives for the visitor-serving uses, including creating a new Port waterfront destination that encourages commercial and recreational uses pursuant to the 2020 Vision Plan, because the ferry terminal would be isolated from the primary 9-acre redevelopment area intended for visitor-serving amenities. This separation would limit opportunities to activate the shoreline, reduce the

[8] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

ability to provide cohesive visitor-serving uses directly connected to the water, and diminish the potential to establish a vibrant, publicly accessible waterfront environment. The F-Dock location would also not utilize the 9-acre ferry terminal parcel to strengthen connections between central parts of Redwood City and the waterfront or support new visitor-serving public spaces at the project site envisioned to serve both ferry passengers and the broader community. For these reasons, the F-Dock location would not meet several key objectives of the project or the Port's Vision Plan.

As discussed for the Wharf 5 location above, the unused 8-acre parcel southeast of Wharf 5, which is northeast of F-Dock, could accommodate parking area for F-Dock and the visitor-serving uses. However, this parcel is planned for future Port-priority uses, such as cargo laydown, maritime-dependent storage, and other terminal support functions, which as described for the Wharf 5 location, necessitate controlled-access conditions incompatible with ferry terminal or visitor-serving uses. Additionally, the parcel lacks direct waterfront access or views so it would not support project objectives related to shoreline activation and creating a cohesive public waterfront destination.

Given the existing development near F-Dock, raising the F-Dock site to address sea-level rise would not be feasible, but if the vacant site to the northeast were used for parking and the visitor-serving uses, it could be elevated. The raising of that 8-acre vacant site would have similar air pollutant emissions as elevating the 9-acre project site that would occur under the proposed project. These emissions would occur in closer proximity to sensitive receptors and thus, the health risk impact would be greater. The raising of the 8-acre vacant site would protect that site from rising sea levels, however, the site is not on the shoreline and would not fully support the project objective to increase the Port's resiliency to rising sea levels. Further, the raised site could result in water accumulation or channelization to the surrounding properties that do not have a raised elevation, thereby increasing off-site inundation risk.

Additionally, as discussed for the Wharf 5 location, the ferry travel time would be greater than the proposed project which would result in fewer operational benefits associated with reduced air pollutant and GHG emissions, and VMT. Thus, the F-Dock location would not fully meet project objectives to extend multi-modal transportation solutions that ease traffic congestion and reduce per capita VMT and GHG emissions.

Given the elimination of public use of F-Dock, increased potential for vessel conflicts, longer ferry travel time, need for replacement of the existing dock, and fewer air quality, GHG, and transportation benefits, development of the ferry terminal at the F-Dock location would not meet most of the project objectives to enhance public access along the waterfront, improve multi-modal access, promote recreational activity within the Port, extend multi-modal transportation solutions that ease traffic congestion and reduce VMT and GHG emissions. Thus, the F-Dock location alternative is not considered to be feasible and was rejected from further consideration.

4.4.2 Alternative Design

4.4.2.1 Single Berth Ferry Dock

A single berth ferry dock design that would only accommodate the berthing of one ferry vessel at a time was considered, as opposed to the proposed project's two berth design which would accommodate the berthing of two ferry vessels. Construction of a single berth ferry dock would be similar to that of the proposed project, and thus construction impacts on biological resources related to in-water construction (i.e., pile driving and dredging and filling) and impacts on nesting birds due to tree removal would be

similar to the proposed project. Construction impacts on air quality would be the same as the proposed project.

Operational impacts of the single berth ferry terminal would either be similar (e.g., overwater shading and lighting impacts) or greater because of reduced operational efficiency. The reduced operational efficiency would equate to fewer daily vessel trips and a lower ridership combined with increased operational costs. This would mean fewer operational benefits associated with reduced air pollutant and GHG emissions, and VMT. Thus, this alternative would only partially fulfill the proposed project objectives to extend multi-modal transportation solutions that ease traffic congestion and reduce VMT and GHG emissions and provide an alternative form of transit that would operate in case of an emergency, and would not reduce impacts as compared to the proposed project. Therefore, development of a single berth ferry dock for the ferry terminal is not considered to be feasible and was rejected from further consideration.

4.4.2.2 Two Berth Parallel Ferry Dock

The two berth parallel ferry dock concept would be in approximately the same location as the proposed project but the dock would be reconfigured to be parallel to the shore and have two floats with one side berthing. The two floats would extend to the Redwood Creek navigational channel and provide easier maneuvering in and out of the berth as compared to the proposed project. Because the parallel ferry dock would be at the edge of the navigation channel that is dredged regularly to provide access to larger vessels, the parallel ferry dock would also require less dredging than the proposed project for ferry terminal access. Less dredging for the ferry terminal would reduce air pollutant emissions and in-water disturbance during both construction and operations for maintenance dredging. However, while there would be less in-water disturbance from dredging, there would be more in-water construction activities to install two floats. This includes a greater number of piles and more overwater shading as compared to the proposed project, thereby increasing impacts on biological resources. Temporary construction noise and air pollutant emissions would also be slightly increased. During operation, the amount of overwater lighting would also be greater.

Additionally, because the ferry terminal would be parallel to the navigation channel there would be more potential for conflict with other Port vessels and recreational users due to encroachment into the channel, which could present a safety concern and deter recreation use of the channel. Thus, this alternative would not meet most project objectives of extending multi-modal transportation solutions that east traffic congestion and promoting recreational activity within the Port. Because of the proximity to the navigation channel and increased in-water construction, the inability to substantially reduce impacts, the two berth parallel ferry dock is not feasible and was rejected from further consideration.

4.4.3 Alternative Transit Mode to Ferry Route

An alternative transit mode to a new ferry route concept would provide a new transit mode (i.e., bus) between San Francisco and Oakland and Redwood City. Depending on the transit mode selected, this alternative would require less construction (e.g., potentially only for bus stops and passenger shelters) and no in-water work, thereby reducing construction-related impacts. However, by not providing a ferry service, this concept would not meet most of the project objectives, including WETA and Port plan policies and goals for the regional ferry system to address a growing need for new Bay Area transportation options through the establishment of a public ferry service at the Port of Redwood City. It also would not provide

an alternative form of transit that would operate in the case of an emergency event that disables roads or other transportation infrastructure. This concept may result in reduced transit ridership due to lower operational efficiency and jurisdictional constraints and added required coordination which would result in fewer benefits from VMT reduction than the proposed project. Buses would also experience the same traffic congestion as cars unless a bus-only lane is constructed, which could require reducing general purpose travel lanes and/or new right-of-way acquisition. Thus, this concept would not achieve project objectives to extend multi-modal transportation solutions that ease traffic congestion and reduce per capita VMT and GHG emissions.

Further, because this concept would not include accessibility improvements or the construction of visitor-serving uses, it would not achieve project objectives to strengthen the Port's impact on the regional economy and quality of life (in support of the Port's 2020 Vision Plan), promote commercial and recreational activity, create a destination for the location community and visitors, or expand multi-modal access. Therefore, development of an alternative transit mode to the ferry route is not feasible and was rejected from further consideration.

4.5 Alternatives Carried Forward for Further Consideration

4.5.1 Alternative 1: No Project Alternative

Under Alternative 1, the project site would be a vacant unused site that is not leased by the Port for other uses. The site would have hard-packed soil and an elevation of approximately 10 feet from 10-feet North American Vertical Datum (NAVD)[9] that is not accessible to the public.

None of the proposed project's components would be implemented. No new ferry terminal or visitor-serving uses would be constructed and there would be no ferry service from Redwood City to San Francisco and to Oakland established. There would be no access improvements, demolition of the existing maintenance building or the Shell Unloading Wharf; relocation, installation, or removal or utilities; roadway widening of Seaport Boulevard; relocation of the railroad tracks; or vacation of Frontage Road. Additionally, no extension of the Bay Trail within the project site would be constructed, and a Class I bicycle trail and Americans with Disabilities Act (ADA)-compliant sidewalk would not be installed along the Seaport Boulevard loop. There would be no modifications to the Pacific Shores Center entrance. There would be no amendment to the San Francisco Vessel Mutual Assistance Plan (SF-VMAP)[10] to incorporate the Redwood City ferry service and vessels. There would be no zone change or amendment to BCDC's San Francisco Bay Area Seaport Plan.

4.5.2 Alternative 2: No Project Alternative – Reasonably Foreseeable Uses

Under Alternative 2, the project site would continue to be leased by the Port and would be occupied by Port-related industrial uses. Alternative 2 would not implement any of the proposed project's components, including the ferry terminal, visitor-serving uses, adjacent roadway improvements or

[9] NAVD is established for vertical control surveying in the U.S.

[10] U.S. Coast Guard, Sector San Francisco Bay. May 30, 2021. San Francisco Vessel Mutual Assistance Plan (SF-VMAP).

modifications, or Bay Trail extension within the project site boundaries. Alternative 2 would not result in a zone change or amendment to BCDC's San Francisco Bay Area Seaport Plan and the SF-VMAP.

Under Alternative 2, the Port would continue to lease the project site for marine industrial uses, which are assumed to be the continuation of the site being used for sales and stockpiling of concrete and other materials. Landside improvements located on-site, including a storage building, equipment and machinery, and stockpiles would remain. Under these conditions, the project site would remain closed to the public and access would continue to be from the CEMEX marine terminal or Frontage Road to the south. The project site would not be raised and would continue to have hard-packed soil and sparse vegetation at an elevation of approximately 10-feet NAVD.

4.5.3 Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development

4.5.3.1 Ferry Terminal Components

Alternative 3 would establish the new ferry service between Redwood City and San Francisco and Redwood City and Oakland as described for the proposed project. The ferry terminal and access improvements would also be implemented as described for the proposed project with several differences that are identified below.

Under Alternative 3, the elevation of the project site would not be raised from 10-feet NAVD to 17-feet NAVD. This would shorten the construction period by nine months to approximately 39 months as compared to 48 months for the proposed project and reduce the number of truck trips that would occur during the construction period, which are estimated at approximately 100 per day for the raising of the site elevation.

Waterside facilities, which include a float with berths for two ferry vessels, gangway, and access pier would be the same as for the proposed project, with the exception of the access pier being constructed on a raised elevation that is a minimum 4 feet to accommodate a future 3.5-foot sea level rise scenario. The raised access pier would be designed to include an access ramp that meets ADA requirements. The gangway would connect to access pier and ferry float and would be the same maximum size as assumed under the proposed project (up to 120 feet in length and 10 feet in width). The ferry float would also be the same size and have two berths and capacity for possible future installation of electric vessel charging infrastructure.

Under Alternative 3, as with the proposed project, landside facilities associated with the ferry terminal would include an access road and parking lot, an interim portable restroom, ferry information displays, secure lockers for bicycle/micromobility devices, landscape buffer and security fence along the southern boundary, and an off-street paved bicycle trail on the southern side of the project site. Additional strategies to accommodate water intrusion would be incorporated into Alternative 3. This includes constructing infiltration areas along the project's boundaries such as swales and infiltration ponds that could safely capture, channel, and infiltrate water that may accumulate on-site from storms or wave run-up during high tides.

Although the project site elevation would not be raised under Alternative 3, the parking lot would be raised approximately three feet above the existing site elevation and would slope downwards to direct water runoff into drainage features and stormwater infrastructure. The parking lot and pedestrian access

from the parking lot to the ferry terminal and surrounding bicycle trail, sidewalks, and the Bay Trail would meet City engineering standards and ADA accessibility requirements. The raising of the parking lot would require a small amount of fill at the project site.

Backflow devices would be installed in drainage pipes to stop seawater or floodwater from intruding into drainage pipes. The existing riprap along the shoreline would be improved as needed, which may include replacing washed away rock with variable sized stones (including larger stones), clearing vegetation and debris, and adjusting the slope angle to better protect against storm surge through absorption and dissipation of energy.

Suitable shoreline native vegetation and vegetated swales would be installed to stabilize the soils, absorb wave energy, and act as a sponge to accommodate high tides and sea level rise. The parking lot design would provide adequate space for installation of perimeter flood protection, such as flood panels that could block or divert water.

The access and connectivity modifications, including the widening of Seaport Boulevard from the entrance to the Pacific Shores Center to the project site access road for a Class I bicycle trail and ADA-compliant sidewalk, improvements at the Pacific Shores Center entrance intersection including a future traffic signal, and expansion of the Bay Trail, would be implemented as would occur under the proposed project. The replacement of the railroad tracks, vacation of a portion of Frontage Road, and relocation of the maintenance building would also be the same as under the proposed project. The new access driveway and modifications to the existing western parking lot would be the same as for the proposed project. However, because the parking lot site would only be raised three feet, the access driveway connection to Seaport Boulevard would have a smaller gradient change as compared to the proposed project.

Alternative 3 also includes an amendment to the SF-VMAP to incorporate the Redwood City ferry service and vessels.

4.5.3.2 Visitor-Serving Uses

Alternative 3 would include a zone change and an amendment to the BCDC's San Francisco Bay Area Seaport Plan to allow visitor-serving amenities at the project site consistent with the Port's 2020 Vision Plan. The proposed hotel, restaurant, and office uses would not change but the maximum square footages would be reduced from a maximum of 210,000 square feet to a maximum of 119,000 square feet. This would be an approximately 43 percent reduction in total square footage. The 119,000 square feet would include a maximum of 105,000 square feet of hotel uses, maximum 6,000 square feet of restaurant uses, and maximum of 8,000 square feet of office space. As with the proposed project, the hotel would be three stories and may include a bar/restaurant, conference/meeting rooms, a fitness center and pool, and retail uses. It would have a maximum of 95 rooms, as compared to the proposed project which would have 100 to 200 rooms and be up to 180,000 square feet in size.

Given the reduced amount of square footage, the development would occupy a smaller footprint and thus provide additional area to incorporate absorbent landscaping, such as rain gardens, permeable materials such as gravel, swales, and infiltration basins near the buildings. It would also allow for a greater setback from water compared to the minimum 100 feet that would be required under the proposed project. The setback is assumed to be an average of an additional 10 feet (minimum of 100 feet and average of 110 feet) from the shoreline.

The buildings would be constructed on piles that would raise the occupiable building area by a minimum of 4 feet (or minimum of 8 feet for ground-level parking) consistent with flood zone requirements for the finished floor elevation. Ramps would be constructed to meet ADA accessibility requirements. Use of water-resistant materials such as moisture resistant drywall and concrete that can withstand water damage, waterproofing exteriors with impervious materials and coatings, watertight doors, and pumps to remove water would also be incorporated. The area below the elevated structures would be used for parking and/or absorbent landscaping. Shear walls and diagonal bracing (X-braces) between the support columns would be used in compliance with building code seismic safety requirements. The interim portable restroom facility would be replaced by a permanent facility.

New utilities and utility connections would be required, which would have waterproof seals and use protective coatings and materials resistant to housing electrical systems corrosion. Watertight enclosures and flood resistant-doors and barriers would be used around areas. Backflow devices would be installed in drainage pipes to stop seawater or floodwater from intruding into drainage pipes. The Shell Unloading Wharf would be removed during construction of the visitor-serving uses under Alternative 3.

4.6 Alternatives Impact Analysis

4.6.1 Alternative 1: No Project Alternative

4.6.1.1 Aesthetics

4.6.1.1.1 Construction

Under Alternative 1, there would be no construction-related activities. There would be no construction equipment or fencing located on the project site, and therefore no temporary alterations of views of scenic vistas and visual resources or degradation of the existing visual character. Therefore, there would be no construction-related impact on aesthetics and visual resources, and overall impacts would be less than the proposed project.

4.6.1.1.2 Operations

Under Alternative 1, the project site would continue to be a flat graded site with a filled drainage ditch. Views from nearby public locations, including the adjacent waterway and the Bay Trail would be maintained, and there would be no disruption to views of aesthetic resources including Bair Island, Greco Island, and the San Francisco Bay. While there would be no raised elevation of the project site and no new structures located at the project site that could alter the visual quality or character, there would also be no new landscaping or other visual features. The project site would continue to be vacant and lack visually significant geologic, hydrologic, or vegetative features. The project site would not be open to the public and there would be no extension of the Bay Trail at the project site or other expansion of views available from the project site. Security lighting would continue to be maintained at a similar lighting level. Alternative 1 would not result in visual changes, no impact would occur, and overall impacts would be less than the proposed project. However, under Alternative 1, no visual or public view improvements would occur.

4.6.1.2 Air Quality

4.6.1.2.1 Construction

Alternative 1 would avoid the construction-related air pollutant emissions associated with the proposed project, including truck haul trips to import artificial fill. Therefore, there would be no construction-related impacts to air quality, and overall impacts would be less than the proposed project.

4.6.1.2.2 Operations

Alternative 1 would not generate operations-related air pollutant emissions associated with the proposed project, including emissions related to new vehicle trips to the project site and the operation of the diesel-powered vessels and visitor-serving uses. Alternative 1 would therefore avoid the proposed project's significant and unavoidable operational air quality impact relative to exceedance of the Air District's daily and annual thresholds for nitrogen oxides (NO_X). No impact would occur and overall impacts of Alternative 1 would be less than the proposed project. However, while Alternative 1 would avoid generating VMT impacts associated with the visitor-serving uses, without the ferry terminal, the net reduction of regional VMT and associated overall air quality benefits affiliated with providing commuters in the Bay Area with a new alternative means of transportation would not occur as it would under the proposed project.

4.6.1.3 Biological Resources

4.6.1.3.1 Construction

Under Alternative 1, no construction activities would occur. Alternative 1 would avoid the potential for construction-related indirect impacts to biological resources. There would be no project-related pile driving, dredging, or other in-water construction in Redwood Creek and no temporary impacts on sensitive habitats. There would be no tree removal along Seaport Boulevard that could disturb nesting birds. The Shell Unloading Wharf would not be removed, and therefore there would be no potential impacts to nesting cliff swallows. Under Alternative 1, there would be no change to biological resources during construction, therefore, there would be no construction-related impacts, and overall impacts would be less than the proposed project. However, the reduction in overwater shading that would occur with removal of the Shell Unloading Wharf under the proposed project would not occur under Alternative 1.

4.6.1.3.2 Operations

Under Alternative 1, the project site would remain vacant and primarily covered by hard-packed soil and devoid of biological resources. There is also 0.12 acre of existing tidal wetland at the northwest corner of the project area that would not be impacted under Alternative 1. There would be no new activities at the project site and along the shoreline. Therefore, there would be no operations-related impacts to biological resources, and overall impacts would be less than the proposed project.

4.6.1.4 Cultural Resources and Tribal Cultural Resources

4.6.1.4.1 Construction

As with the proposed project, no historical resources or known tribal cultural resources exist on the project site. Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts to cultural resources and tribal cultural resources. While the proposed project would also have no impact on historical or known tribal cultural resources, because Alternative 1 would avoid the construction activities of the proposed project, overall impacts would be less than the proposed project.

4.6.1.4.2 Operations

Under Alternative 1, the project site would remain vacant and primarily covered by hard-packed soil. There would be no change in on-site conditions or uses. Therefore, there would be no operations-related impacts to cultural resources and tribal cultural resources, and overall impacts would be similar to the proposed project.

4.6.1.5 Energy

4.6.1.5.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts related to energy, and overall impacts would be less than the proposed project.

4.6.1.5.2 Operations

The only existing utilities at the site are a connection to electrical power at the marine terminal to run security lights and a fiber connection to the Port office to run security cameras. These existing connections would remain under Alternative 1 and there would be no changes or upgrades or increase in energy use to power the ferry vessels and supply the visitor-serving uses. Therefore, the No Project Alternative 1 would have no operations-related impact related to energy, and overall impacts would be less than the proposed project. However, while Alternative 1 would avoid impacts associated with electricity, natural gas, and transportation fuel consumption, without the ferry terminal, the net reduction in regional VMT and associated reduction in fuel use that would occur under the proposed project would not occur under Alternative 1.

4.6.1.6 Geology, Soils, and Paleontological Resources

4.6.1.6.1 Construction

Under Alternative 1, there would be no construction activities; therefore, there would be no construction-related impacts related to geology, soils, and paleontological resources, and overall impacts would be less than the proposed project. Alternative 1 would avoid the significant and unavoidable impact to paleontological resources due to pile driving that would occur under the proposed project.

4.6.1.6.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes to the on-site conditions or uses. Therefore, there would be no operations-related impacts related to geology, soils, and paleontological resources, and overall impacts would be less than the proposed project. However, the project site would continue to be hard-packed soil with sparse pockets of vegetation and riprap along the shoreline; this would have greater exposure to soil erosion from wind and water as compared to the proposed project, which would have reduced erosion potential due to landscaping and hardscaping.

4.6.1.7 Greenhouse Gas Emissions

4.6.1.7.1 Construction

Under Alternative 1, there would be no construction activities that could generate GHG emissions. Therefore, there would be no construction-related impacts related to GHG, and overall impacts would be less than the proposed project.

4.6.1.7.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses that could generate GHG emissions. Alternative 1 would not generate visitor-serving uses-related VMT. Therefore, there would be no operations-related impacts related to GHG and no impact would occur, and overall impacts would be less than the proposed project. However, the net reduction in GHG emissions that would occur under the proposed project due to the net reduction of regional VMT would not occur under Alternative 1.

4.6.1.8 Hazards and Hazardous Materials

4.6.1.8.1 Construction

Alternative 1 would avoid the construction-related impact due to the potential to expose workers to contaminated soil associated with the proposed project. Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses. There would be no risks related to the release of hazardous materials into the environment. Therefore, there would be no construction-related impacts related to hazards and hazardous materials, and overall impacts would be less than the proposed project.

4.6.1.8.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses. There would be no risks related to the release of hazardous materials into the environment. Alternative 1 would avoid the significant impact related to the potential for soil gas intrusion to occur within the enclosed structures, which could expose occupants of the visitor-serving uses to gas vapors released from the encapsulated soil contaminated with diesel fuels during operation of the proposed project. Therefore, there would be no operations-related impacts related to hazards and hazardous materials, and overall impacts would be less than the proposed project.

4.6.1.9 Hydrology and Water Quality

4.6.1.9.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts related to hydrology and water quality, and overall impacts would be less than the proposed project.

4.6.1.9.2 Operations

Under Alternative 1, the project site would continue to be a vacant flat site with a stormwater conveyance pipeline on the eastern edge of the site. The project site would primarily be covered by hard-packed soil, which, while pervious, would still be subject to runoff into the surrounding waterways. There would be no increases of impervious surfaces within the project site and no new uses established; therefore, the project site would not experience an increase in stormwater runoff transferring pollutants into nearby surface waters. There would be no project-related increases of vessels using the local waterways and therefore no change in wave action that could cause erosion. Alternative 1 would not alter that drainage pattern or affect groundwater.

The project site is located within a flood hazard area subject to inundation by a one-percent-annual-chance flood event. Alternative 1 would not alter impacts related to hydrology and water quality as compared to existing conditions. Therefore, there would be no operations-related impacts related to

hydrology and water quality, and overall impacts would be less than the proposed project. However, under Alternative 1, the project site elevation would not be raised as with the proposed project, and therefore, the project site would be at greater risk of inundation by flooding and more vulnerable to sea level rise compared to the proposed project.

4.6.1.10 Land Use

Under Alternative 1, there would be no zone change and no new construction at the project site, including no ferry terminal or ferry service and the site would remain closed to the public. Therefore, there would be no impacts related to land use, and overall impacts would be less than the proposed project. However, Alternative 1 would not establish a new ferry service to and from Redwood City that would have benefits such as reducing VMT and reducing air pollutant and GHG emissions. Thus, Alternative 1 would not support the guiding vision of operating a ferry terminal out of Redwood City as identified in the Plan Bay Area 2050+,[11] the San Francisco Bay Area Seaport Plan,[12] the WETA 2050 Service Vision and Expansion Policy,[13] the Redwood City General Plan,[14] the Port of Redwood City 2020 Vision Plan,[15] and the City's 2018 Transportation Plan (RWCmoves).[16] Additionally, Alternative 1 would not enhance public access along the waterfront, and thus would not support goals to increase public access and recreational opportunities along the shoreline identified in the Port of Redwood City 2020 Vision Plan, Redwood General Plan, and San Francisco Bay Plan.[17]

4.6.1.11 Noise and Vibration

4.6.1.11.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts related to noise and vibration, and overall impacts would be less than the proposed project.

4.6.1.11.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses. Therefore, there would be no increase in operational noise and vibration levels due to project activities, including project traffic. The proposed project would result in a significant cumulative impact related to combined operational noise levels along Seaport Boulevard between Seaport Court and Chesapeake Drive at the Port of Redwood City Municipal Marina; Alternative 1 would avoid this significant impact. Therefore, there would be no operations-related impacts related to noise and vibration, and overall impacts would be less than the proposed project.

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[11] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.

[12] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.

[13] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.

[14] City of Redwood City. October 2010. General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/policy-initiatives/general-plan-precise-plans/general-plan.

[15] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).

[16] City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan.

[17] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

4.6.1.12 Public Services

4.6.1.12.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts related to public services, and overall impacts would be less than the proposed project.

4.6.1.12.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses, nor a new ferry service or any improvements to the Bay Trail and non-motorized access to the project area that could attract new visitors. The project site would continue to be served by the Redwood City Police Department and their Marine Unit as well as the Redwood City Fire Department, but there would be no new uses or an increase in visitors to the project site or surrounding areas due to Alternative 1. Therefore, there would be no operations-related impacts related to public services, and overall impacts would be less than the proposed project.

4.6.1.13 Recreation

4.6.1.13.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, Alternative 1 would have no construction-related impacts on recreation and overall impacts would be less than the proposed project. However, there would be no construction of the recreation enhancements associated with the proposed project, including the Bay Trail extension, the new Class I bicycle trail and ADA-compliant sidewalk, and public access to the shoreline from the project site.

4.6.1.13.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses, nor a new ferry service or any improvements to the Bay Trail and non-motorized access to the project area that could attract new visitors. There would be no WETA owned ferry vessels operating in the Redwood Creek channel, and therefore no increased motorized vessel activity within Redwood Creek, and no new visitors would be drawn to the project area. The existing Bay Trail and waterfront park would continue to be open for public use, while the project site would remain closed to the public; there would be no noticeable increase in users of these recreational sites that would cause substantial physical deterioration. Therefore, Alternative 1 would have no operations-related impacts on recreation and overall impacts would be less than the proposed project. However, by not expanding the Bay Trail, Alternative 1 would not support the Redwood City General Plan Policy BC-5.2 and San Francisco Bay Plan, both of which call for completing segments of the Bay Trail. Further, the new Class I bicycle trail and ADA-compliant sidewalk, and public access to the shoreline from the project site would not be implemented; thus, the recreational benefits associated with the proposed project would not occur under Alternative 1.

4.6.1.14 Transportation

4.6.1.14.1 Construction

Under Alternative 1, there would be no construction activities, and therefore no impacts to the circulation system. Alternative 1 would have no construction-related impacts to transportation, and overall impacts would be less than the proposed project.

4.6.1.14.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses, nor a new ferry service or any improvements to the Bay Trail and non-motorized access to the project area that could attract new visitors. Therefore, there would be no impacts related to transportation, and overall impacts would be less than the proposed project. However, while no increase in vehicular traffic to the project site or along Seaport Boulevard would occur, transportation improvements and associated benefits that would be implemented under the proposed project would not be implemented under Alternative 1. The proposed project would provide an alternative form of transit for commuter travel and an alternative form of transit that could operate in the case of an emergency. This is consistent with and supportive of programs and plans addressing the circulation system, including the California State Transportation Agency's California Transportation Plan 2050,[18] City/County Association of Governments of San Mateo County (C/CAG)'s Countywide Transportation Plan 2040,[19] and RWCmoves.[20] Alternative 1 would not provide a ferry service and therefore, would not be aligned with the programs and plans addressing the circulation system.

4.6.1.15 Utilities and Service Systems

4.6.1.15.1 Construction

Under Alternative 1, there would be no construction activities. Therefore, there would be no construction-related impacts related to utilities, and overall impacts would be less than the proposed project.

4.6.1.15.2 Operations

Under Alternative 1, the project site would continue to be closed to the public and there would be no changes in the on-site conditions or uses or a new ferry service. There would be no change in demand for utilities and no change in stormwater management or solid waste generation. Therefore, there would be no operations-related impacts related to utilities, and overall impacts would be less than the proposed project.

4.6.2 Alternative 2: No Project Alternative – Reasonably Foreseeable Uses

4.6.2.1 Aesthetics

4.6.2.1.1 Construction

Alternative 2 would have no construction-related activities, and therefore no temporary alterations of views of scenic vistas and visual resources or degradation of the existing visual character. Therefore, there would be no construction-related impact on aesthetics and visual resources, and overall impacts would be less than the proposed project.

4.6.2.1.2 Operations

Under Alternative 2, the project site would be used for stockpiling of materials and would continue to be closed to the public. Equipment, storage, and stockpiles would be visible from surrounding areas. The site

[18] California State Transportation Agency (CalSTA). February 2021. California Transportation Plan 2050. Available: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf.

[19] City/County Association of Governments of San Mateo County (C/CAG). February 2017. San Mateo Countywide Transportation Plan 2040. Available: https://ccag.ca.gov/wp-content/uploads/2014/05/SMCTP-2040-FINAL_.pdf.

[20] City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan.

would continue to lack visually significant geologic, hydrologic, or vegetative features. Views from nearby public locations would be maintained and, while the stockpiles would be visible from some public vantage points, there would be no substantial disruption to views of aesthetic resources including Bair Island, Greco Island, and the San Francisco Bay. There would also be no new landscaping or other visual features. There would be no extension of the Bay Trail at the project site or other expansion of views available from the project site. Security lighting would continue to be maintained at a similar lighting level. Alternative 2 would not result in visual changes, no impact would occur, and overall impacts would be less than the proposed project. However, under Alternative 2, no visual or public view improvements would occur.

4.6.2.2 Air Quality

4.6.2.2.1 Construction

Alternative 2 would avoid the construction-related air pollutant emissions associated with the proposed project. Therefore, there would be no construction-related impacts to air quality, and overall impacts would be less than the proposed project.

4.6.2.2.2 Operations

Alternative 2 would not generate operations-related air pollutant emissions associated with operations of the ferry vessel, passenger trips to and from the ferry terminal, and visitor-serving trips from the proposed project. Alternative 2 would not increase visitor-serving uses-related VMT and there would be no increase in vehicle-related emissions; VMT generated from operations at the project site would be the same as existing operations under the current lease. Alternative 2 would therefore avoid the proposed project's significant and unavoidable operational air quality impact relative to NO_X emissions. No impact would occur and overall impacts of Alternative 2 would be less than the proposed project. However, the net reduction of regional VMT and overall associated air quality benefits affiliated with providing commuters in the Bay Area with a new alternative means of transportation would not occur as under the proposed project.

4.6.2.3 Biological Resources

4.6.2.3.1 Construction

Under Alternative 2, no construction activities would occur and there would be no potential for construction-related impacts to biological resources, including sensitive habitats or nesting birds. There would be no change to biological resources during construction, therefore, there would be no construction-related impacts, and overall impacts would be less than the proposed project. However, the reduction in overwater shading that would occur with removal of the Shell Unloading Wharf under the proposed project would not occur under Alternative 2.

4.6.2.3.2 Operations

Under Alternative 2, the existing tidal wetland at the northwest corner of the project area would not be impacted. The majority of the project site would continue to be utilized for stockpiling of materials as under the current lease and would be devoid of biological resources. Therefore, there would be no operations-related impacts to biological resources, and overall impacts would be less than the proposed project.

4.6.2.4 Cultural Resources and Tribal Cultural Resources

4.6.2.4.1 Construction

Under Alternative 2, as with the proposed project, no historical resources or known tribal cultural resources exist in the project site. Further, there would be no construction. Therefore, there would be no construction-related impacts to cultural resources and tribal cultural resources. While the proposed project would also have no impact on historical or known tribal cultural resources, because Alternative 2 would avoid the construction activities of the proposed project, overall impacts would be less than the proposed project.

4.6.2.4.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease. There would be no change in on-site conditions or uses. Therefore, there would be no operations-related impacts to cultural resources and tribal cultural resources, and overall impacts would be similar to the proposed project.

4.6.2.5 Energy

4.6.2.5.1 Construction

Under Alternative 2, there would be no construction activities, and therefore no construction-related impacts related to energy, and overall impacts would be less than the proposed project.

4.6.2.5.2 Operations

Under Alternative 2, there would be no changes or upgrades to existing utility connections or uses, and no change from operations under the current lease leading to a substantial increase in energy use. There would be no impact, and overall impacts would be less than the proposed project. However, while Alternative 2 would avoid impacts associated with electricity, natural gas, and transportation fuel consumption, without the ferry terminal, the net reduction in regional VMT and associated reduction in fuel use that would occur under the proposed project would not occur under Alternative 2.

4.6.2.6 Geology, Soils, and Paleontological Resources

4.6.2.6.1 Construction

Under Alternative 2, there would be no construction activities and therefore no construction-related impacts related to geology, soils, and paleontological resources, and overall impacts would be less than the proposed project. Alternative 2 would avoid the significant and unavoidable impact to paleontological resources due to pile driving that would occur under the proposed project.

4.6.2.6.2 Operations

Under Alternative 2, the project site would continue to be closed to the public and the project site would be utilized for stockpiling of materials as under the current lease. Therefore, there would be no operations-related impacts related to geology, soils, and paleontological resources, and overall impacts would be less than the proposed project. However, Alternative 2 would have greater exposure to soil erosion from wind and water as compared to the proposed project, which would have reduced erosion potential due to landscaping and hardscaping.

4.6.2.7 Greenhouse Gas Emissions

4.6.2.7.1 Construction

Under Alternative 2, there would be no construction activities that could generate GHG emissions. Therefore, there would be no construction-related impacts related to GHG, and overall impacts would be less than the proposed project.

4.6.2.7.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling materials as under the current lease and there would be no changes in the on-site conditions or uses that could generate an increase in GHG emissions. Therefore, there would be no operations-related impacts related to GHG and no impact would occur. Overall impacts would be less than the proposed project. However, the net reduction in GHG emissions that would occur under the proposed project due to the net reduction of regional VMT would not occur under Alternative 2.

4.6.2.8 Hazards and Hazardous Materials

4.6.2.8.1 Construction

Alternative 2 would not have the potential to expose workers to contaminated soil associated with the proposed project. Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease and there would be no new on-site uses. There would be no risks related to the release of hazardous materials into the environment. Therefore, there would be no construction-related impacts related to hazards and hazardous materials, and overall impacts would be less than the proposed project.

4.6.2.8.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease and there would be no changes in the on-site conditions or uses. No stockpiling of hazardous materials would occur, and all storage, handling, and disposal of materials would comply with applicable federal, State, and local regulations. There would be no increased risks related to the release of hazardous materials into the environment. Alternative 2 would avoid the significant impact related to the potential for soil gas intrusion to occur within the enclosed structures as during operation of the proposed project. Therefore, there would be no operations-related impacts related to hazards and hazardous materials, and overall impacts would be less than the proposed project.

4.6.2.9 Hydrology and Water Quality

4.6.2.9.1 Construction

Under Alternative 2, there would be no construction-related activities. Therefore, there would be no construction-related impacts related to hydrology and water quality, and overall impacts would be less than the proposed project.

4.6.2.9.2 Operations

Under Alternative 2, the project site would be a flat site with stockpiles of materials. The project site would primarily be covered by hard-packed soil and stockpiles, which, while pervious, would still be subject to runoff into the surrounding waterways, including runoff from the stockpiles that could result in entrainment of dust and other particles that enter the adjacent waterways. While this would not increase as compared to activities occurring under the current lease and there would be no increases of impervious

surfaces within the project site, the potential for stormwater runoff to transfer pollutants into nearby surface waters would be greater as compared to the proposed project. However, as with the stockpiling and operations under the current lease, stormwater runoff from the project site under Alternative 2 would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Further, the continuation of using the site for stockpiling would not result in an increase in the number of vessels using the local waterways that would cause a change in wave action resulting in increased erosion. Alternative 2 would not affect groundwater.

The project site is located within a flood hazard area subject to inundation by a one-percent-annual-chance flood event. Alternative 2 would not alter impacts related to hydrology as compared to existing conditions. Therefore, there would be no operations-related impacts related to hydrology and water quality, and overall impacts would be less than the proposed project. However, under Alternative 2, the project site elevation would not be raised as with the proposed project, and therefore, the project site would be at greater risk of inundation by flooding and more vulnerable to sea level rise compared to the proposed project.

4.6.2.10 Land Use

Under Alternative 2, there would be no zone change and no construction of a ferry terminal or visitor-serving uses at the project site and the site would remain closed to the public. Therefore, there would be no impacts related to land use, and overall impacts would be less than the proposed project. However, Alternative 2 would not establish a new ferry service to and from Redwood City that would have benefits such as reducing VMT and reducing air pollutant and GHG emissions. Thus, Alternative 2 would not support the guiding vision of operating a ferry terminal out of Redwood City as identified in the Plan Bay Area 2050+,[21] the San Francisco Bay Area Seaport Plan,[22] the WETA 2050 Service Vision and Expansion Policy,[23] the Redwood City General Plan,[24] the Port of Redwood City 2020 Vision Plan,[25] and the City's 2018 Transportation Plan (RWCmoves).[26] Additionally, Alternative 2 would not enhance public access along the waterfront, and thus would not support goals to increase public access and recreational opportunities along the shoreline identified in the Port of Redwood City 2020 Vision Plan, Redwood General Plan, and San Francisco Bay Plan.[27]

[21] MTC and ABAG. March 2026. Plan Bay Area 2050+. Available: https://planbayarea.org/sites/default/files/documents/Final_Plan_Bay_Area_2050_Plus_0.pdf?cb=c85e41cb.
[22] BCDC. November 2023. San Francisco Bay Area Seaport Plan. Available: https://bcdc.ca.gov/resources/plans/.
[23] WETA. May 9, 2024. 2050 Service Vision and Expansion Policy, adopted by WETA Board – Resolution 2024-19. Available: https://www.bayferry2050.org/service-vision.
[24] City of Redwood City. October 2010. General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/policy-initiatives/general-plan-precise-plans/general-plan.
[25] Port of Redwood City. January 8, 2020. Port of Redwood City 2020 Vision Plan. Prepared by Vickerman & Associates, LLC. Available: 2020 Vision | Port of Redwood (redwoodcityport.com).
[26] City of Redwood City. July 2018. RWCmoves. Available: https://rwcmoves.com/final-plan.
[27] BCDC. Reprinted March 25, 2025. San Francisco Bay Plan. Available: https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/05/SanFranciscoBayPlan_ADA.pdf.

4.6.2.11 Noise and Vibration

4.6.2.11.1 Construction

Under Alternative 2, there would be no construction-related activities. Therefore, there would be no construction-related impacts related to noise and vibration, and overall impacts would be less than the proposed project.

4.6.2.11.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease and there would be no new uses established. Therefore, there would be no increase in operational noise and vibration levels due to project activities, including project traffic. Alternative 2 would avoid a significant cumulative impact related to operational noise levels. Therefore, there would be no operations-related impacts related to noise and vibration, and overall impacts would be less than the proposed project.

4.6.2.12 Public Services

4.6.2.12.1 Construction

Under Alternative 2, no construction-related activities would occur. Alternative 2 would not increase activity in the area such that police or fire response times would increase or new or expanded facilities would be required. Therefore, there would be no construction-related impacts related to public services, and overall impacts would be less than the proposed project.

4.6.2.12.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease. The project site would continue to be served by the Redwood City Police Department and their Marine Unit as well as the Redwood City Fire Department, but there would be no new uses or an increase in visitors to the project site or surrounding areas due to Alternative 2. Therefore, there would be no operations-related impacts related to public services, and overall impacts would be less than the proposed project.

4.6.2.13 Recreation

4.6.2.13.1 Construction

Under Alternative 2, there would be no construction activities as under the proposed project, including construction of recreational elements such as extension of the Bay Trail. Therefore, Alternative 2 would have no construction-related impacts on recreation, and overall impacts would be less than the proposed project.

4.6.2.13.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease and there would be no changes in the on-site conditions or uses. There would be no new ferry service or any improvements to the Bay Trail and non-motorized access to the project area that could attract new visitors. There would be no WETA-owned ferry vessels operating in the Redwood Creek channel, and therefore no increased motorized vessel activity within Redwood Creek, and no new visitors would be drawn to the project area. The existing Bay Trail and waterfront park would continue to be open for public use, while the project site would remain closed to the public; there would be no noticeable increase in users of these recreational sites that would cause substantial physical deterioration. Therefore,

Alternative 2 would have no operations-related impacts on recreation, and overall impacts would be less than the proposed project. However, by not expanding the Bay Trail, Alternative 2 would not support the Redwood City General Plan Policy BC-5.2 and San Francisco Bay Plan, both of which call for completing segments of the Bay Trail. Further, the new Class I bicycle trail and ADA-compliant sidewalk, and public access to the shoreline from the project site would not be implemented; thus, the recreational benefits associated with the proposed project would not occur under Alternative 2.

4.6.2.14 Transportation

4.6.2.14.1 Construction

Under Alternative 2, there would be no construction activities as under the proposed project, including no widening of Seaport Boulevard as would occur under the proposed project. Therefore, Alternative 2 would have no construction-related impacts to transportation, and overall impacts would be less than the proposed project.

4.6.2.14.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of concrete and other materials as under the current lease and there would be no new uses established. Consequently, there would be no VMT generated by passengers driving to and from the terminals or visitor-serving uses as in the proposed project. Therefore, there would be no impacts related to transportation, and overall impacts would be less than the proposed project. However, other transportation improvements and associated benefits that would be implemented under the proposed project would not be implemented under Alternative 2.

Alternative 2 would not provide a new ferry service and therefore, would not be aligned with the programs and plans addressing the circulation system that are supportive of expanding transit.

4.6.2.15 Utilities and Service Systems

4.6.2.15.1 Construction

Under Alternative 2, there would be no construction activities as under the proposed project, including the installation of utility lines. Therefore, there would be no construction-related impacts related to utilities, and overall impacts would be less than the proposed project.

4.6.2.15.2 Operations

Under Alternative 2, the project site would be utilized for stockpiling of materials as under the current lease and there would be no new uses. There would be no change in demand for utilities and no change in stormwater management or solid waste generation. Therefore, there would be no operations-related impacts related to utilities, and overall impacts would be less than the proposed project.

4.6.3 Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development

4.6.3.1 Aesthetics

4.6.3.1.1 Construction

Under Alternative 3, the elevation of the project site would not be raised except for the parking lot, which would be raised three feet. Thus, the amount of fill material placed at the project site during construction of the ferry terminal would be substantially less than under the proposed project. As such, Alternative 3 would have less construction activity with a shorter duration than the proposed project. As described in

Section 3.1, Aesthetics, of this Draft EIR, construction of the proposed project would have a less than significant impact related to aesthetics, which would also be the case for Alternative 3. As such, there would be less than significant construction-related aesthetics impacts under Alternative 3, and overall impacts would be less than the proposed project.

4.6.3.1.2 Operations

Under Alternative 3, the project site elevation would not be raised to 17-feet NAVD. Instead, the elevation of the parking lot would be raised by approximately three feet to 13-feet NAVD and sloped to direct water into the on-site drainage features and stormwater infrastructure. The other portions of the site would remain at 10 feet NAVD. The landside access pier would have a raised foundation and the buildings associated with the visitor-serving uses would be constructed on stilts/raised piles raising the structures a minimum of 4 feet above the existing grade. There would be an approximately 43 percent reduction in total square footage of the visitor-serving uses as compared to the proposed project. While the buildings would have less square-footage than the proposed project, it would still include a three-story hotel and a one-story office building and restaurant. As with the proposed project, the buildings would be located at the northern end of the ferry terminal parking lot and the smaller building footprints would provide additional area for landscaping and is assumed to have an average setback that is 10-feet greater from the shoreline.

The raised foundation of the structures would result in a similar top elevation of the buildings as compared to the proposed project, but Alternative 3 would have a reduced building mass, greater setback from the water, and lower overall site elevation. As with the proposed project, implementation of Alternative 3 would not have an adverse effect on scenic vistas and the impact would be less than significant.

As only the parking lot elevation would be raised under Alternative 3, the project site elevation would remain similar to the surrounding properties. While the raised buildings would vary in appearance from other existing buildings in the area that do not have raised foundations, they would still be lower in elevation than many of the surrounding structures. Alternative 3 would incorporate landscape features and buffers and public art similar to the proposed project, although drainage features such as swales and infiltration ponds would be more prominent under Alternative 3. As with the proposed project, under Alternative 3, the project components would be visually consistent with the nearby development and waterfront park and Alternative 3 would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The impact would be less than significant.

While reduced visitor-serving development would result in less building lighting and glare, other lighting (safety lighting, ferry terminal lighting, parking lot lighting, and landscaping lighting) would be provided at a similar level to the proposed project. As with the proposed project, Alternative 3 would not create a new source of substantial light or glare. The impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.2 Air Quality

4.6.3.2.1 Construction

As with the proposed project, construction of Alternative 3 would result in short-term construction-related criteria air pollutant emissions. However, under Alternative 3, the project site elevation would not be raised except for the parking lot, and the construction of visitor-serving uses would be reduced compared to the proposed project. This would shorten the construction period and reduce the number

of truck trips that would occur during the construction period as compared to the proposed project. As discussed in Section 3.2 of this Draft EIR, the criteria air pollutant emissions from construction equipment exhaust generated for the proposed project would not exceed the Air District's average daily thresholds and would not conflict with or obstruct implementation of the applicable air quality plan; the impact would be less than significant. Because Alternative 3 would have lower construction emissions for the ferry terminal and visitor-serving uses than the proposed project, it similarly would not exceed the Air District's average daily thresholds or conflict with or obstruct an air quality plan; the impact would be less than significant.

As discussed in Section 3.2, under the proposed project, construction of the ferry terminal would have a significant impact that would be reduced to less than significant with mitigation due to elevated $PM_{2.5}$ concentrations at the maximally impacted adjacent worker receptor location. This is primarily due to on-site construction equipment use and haul truck trips during the raising of the site elevation. Because the project site, except for the parking lot, would not be raised for the ferry terminal under Alternative 3, the construction period would be shortened by nine months and the number of truck trips would be substantially reduced (truck trips are estimated at approximately 100 per day for the raising of the site elevation). Thus, $PM_{2.5}$ concentrations from construction would be reduced as compared to the proposed project, and construction would not exceed the Air District's health risk threshold at the maximally impacted worker receptor. Construction of the ferry terminal under Alternative 3 would have a less than significant impact and no mitigation would be required**.**

Construction of the visitor-serving uses under the proposed project would not exceed any of the Air District's health risk thresholds at the maximally impacted receptor locations for each receptor type (e.g., worker, resident) within the project site vicinity. The area of development would be reduced under Alternative 3 as compared to the proposed project, and therefore, impact under Alternative 3 the impact would also be less than significant*.*

As with the proposed project, any construction-related odor emissions from Alternative 3 would be temporary, intermittent, and typically confined to the immediate vicinity of the construction site and the impact would be less than significant.

Overall, impacts would be less than significant and less than the proposed project.

4.6.3.2.2 Operations

As with the proposed project, operation of Alternative 3 would not cause a substantial increase in local population or employment and would not conflict with or obstruct implementation of the applicable air quality plan; the impact would be less than significant.

As discussed in Section 3.2, operation of the proposed project would have a significant and unavoidable impact on air quality due to an exceedance of thresholds for NO_X emissions from operation of the diesel ferries and VMT generation from visitors traveling to and from the visitor-serving uses. Under Alternative 3, ferry operations would remain the same as under the proposed project; however, the square footage of visitor-serving uses would be reduced by approximately 43 percent overall, which would reduce the number of visitors coming to the site. VMT generation is highest for the restaurant use and thus, due primarily to a 70 percent reduction in the maximum restaurant square footage, there would be an approximately 62 percent reduction in annual VMT under Alternative 3 as compared to the proposed project (1,633,100 miles under to the proposed project and 622,100 miles under Alternative 3). The

corresponding reduction in NO_x emissions due to the reduced VMT would reduce impacts under operation of Alternative 3 to less than significant and no mitigation would be required.

As discussed in Section 3.2, under the proposed project, operation of the visitor-serving uses in combination with the ferry terminal would not result in an exceedance of the Air District's health risk thresholds at the maximally impacted receptor location and the impact would be less than significant. Under Alternative 3, ferry operations would remain the same but there would be a reduction in VMT due to the reduced visitor-serving uses. Thus, air pollutant emissions from operation of Alternative 3 would be less than the proposed project. The impact would be less than significant.

As with the proposed project, operation of Alternative 3 would not be an odor-generating land use type identified by the Air District and the impact would be less than significant.

Overall, impacts would be less than significant and less than the proposed project.

4.6.3.3 Biological Resources

4.6.3.3.1 Construction

Alternative 3 would require the same in-water construction activities as the proposed project for construction of the ferry terminal and removal of the Shell Unloading Wharf during construction of the visitor-serving uses. Thus, impacts from in-water construction work, such as increases in turbidity and underwater noise, on species identified as a candidate, sensitive, or special-status species would be the same as under the proposed project. Both the proposed project and Alternative 3 would require implementation of Mitigation Measures MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4. Mitigation Measure MM BIO-1 includes the training of in-water construction personnel by a qualified and approved biologist (experienced in construction monitoring); Mitigation Measure MM BIO-2 requires that all dredging, pile driving, and other in-water construction activities adhere to the applicable measures and dredging work windows; Mitigation Measure MM BIO-3 identifies biological best practices for noise minimization during construction; and Mitigation Measure MM BIO-4 identifies biological best practices for sediment reduction during construction. As with the proposed project, the implementation of mitigation would reduce impacts associated with construction of Alternative 3 to less than significant on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS during construction.

Similarly, construction of Alternative 3 would result in the same significant impacts as the proposed project on riparian habitats, sensitive natural communities, and wetlands, including dredging and filling of Waters of the U.S. and State from ferry terminal in-water work, and temporary impacts related to construction access. As with the proposed project, Alternative 3 would require implementation of standard best management practices (BMPs), conformance with permits, such as the Statewide General Construction Permit, and mitigation measures, including MM BIO-2, MM BIO-3, and MM BIO-4. Therefore, both the proposed project and Alternative 3 would result in a less than significant impact (after mitigation) on riparian habitats, sensitive natural communities, and wetlands during construction.

While the overall amount and duration of construction activities would be less than under the proposed project under Alternative 3, activities such as in-water construction removal of the Shell Unloading Wharf, and tree removal along Seaport Boulevard would be the same. Therefore, Alternative 3 would have the same impacts relative to interfering with the movement of native resident or migratory terrestrial wildlife species and the use of native terrestrial wildlife nursery sites. As with the proposed project, Alternative 3

would have a significant impact from the removal of the Shell Unloading Wharf during the cliff swallow breeding season, and in-water construction activities that may impact essential fish habitat (EFH). The implementation of seven mitigation measures (MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4, MM BIO-8, MM BIO-9, and MM BIO-10) would reduce the construction impacts to less than significant. Mitigation Measure MM BIO-1 through MM BIO-4 were described above. Mitigation Measure MM BIO-8 includes requirements for tree removal and the scheduling and nesting bird surveys by a qualified ornithologist to ensure that no nests of cliff swallows would be disturbed during project construction. Mitigation Measure MM BIO-9 identifies rules to follow if an active nest is found within areas that would be disturbed by project activities. Mitigation Measure MM BIO-10 includes scheduling requirements for removal of potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation). As with the proposed project, with implementation of mitigation, Alternative 3 would result in a less than significant impact on the movement of native resident or migratory terrestrial wildlife species and the use of native terrestrial wildlife nursery sites during construction.

As with proposed project, construction of Alternative 3 would not conflict with any local policies or ordinances protecting biological resources, any adopted Habitat Conservation Plans or Natural Community Conservation Plans, or with any other approved local, regional, or State habitat conservation plans; there would be no impact.

Overall, impacts would be less than significant with mitigation incorporated and would be similar to the proposed project.

4.6.3.3.2 Operations

Alternative 3 would have the same ferry operations and maintenance dredging as the proposed project and would be subject to the same regulations and requirements, including obtaining a dredging permit; therefore, potential impacts to sensitive biological resources from these activities would be the same for Alternative 3 as the proposed project.

While the square footage of the visitor-serving uses would be smaller under Alternative 3, the operational uses and the overall project area footprint would be the same as the proposed project. As such impacts on special status species would be the same. As with the proposed project, Alternative 3 would have significant impacts on special-status fish, fish managed under fishery management plans (FMPs), seals, and sea lions from maintenance dredging. Additionally, while reduced visitor-serving development would result in less building lighting, other lighting (safety lighting, ferry terminal lighting, parking lot lighting, and landscaping lighting) would be provided at a similar level to the proposed project. Therefore, as with the proposed project, increased lighting under Alternative 3 would result in significant impacts to local marine life, harbor seal populations, and other wildlife populations due to the high ecological value of the adjacent portion of San Francisco Bay. Implementation of Mitigation Measures MM BIO-4 and MM BIO-5 as discussed under Construction above would reduce these impacts to less than significant. With implementation of mitigation, Alternative 3 would result in a less than significant impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Both Alternative 3 and the proposed project would have impacts on vegetation in riparian habitat directly north of the project site caused by shading from buildings for the visitor-serving uses. However, under Alternative 3, the total area of development for visitor-serving uses would be reduced by 43 percent

compared to the proposed project. Additionally, the development setback under Alternative 3 is assumed to be a minimum of 110 from the shoreline, which is greater than the minimum development setback of 100 feet under the proposed project. This would reduce adverse effects on wetlands from shading caused by buildings as compared to the proposed project. As with the proposed project, the impact under Alternative 3 would be less than significant.

As discussed in Section 3.3 of this Draft EIR, shading from the ferry terminal and installation of piles supporting the terminal would cause the permanent loss of up to 99 square feet of open water/tidal aquatic habitat within the 0.18-acre permanent shading impact footprint and in some cases below the area of shading. This impact would be the same under Alternative 3. As with the proposed project, if removal of the Shell Unloading Wharf occurs within one year of construction of the in-water ferry terminal infrastructure, that removal would compensate for shading by the ferry terminal infrastructure and impacts from new piles. However, if removal of the Shell Unloading Wharf does not occur within one year, impacts of shading from the ferry terminal infrastructure and the fill from the new piles would result in a substantial adverse effect on tidal waters; the impact would be significant. Implementation of Mitigation Measure MM BIO-6, which includes providing compensatory mitigation for planned permanent impacts to open water/tidal aquatic habitat and a Wetland Mitigation and Monitoring Plan, would reduce impacts to less than significant. As with the proposed project, with implementation of mitigation, Alternative 3 would have a less than significant impact on riparian habitat or other sensitive natural community, or State or federally protected wetlands.

Because of maintenance dredging, operation of the new buildings, and ferry operations, operation of both Alternative 3 and the proposed project may interfere substantially with the movement of native resident or migratory fish or wildlife species, resulting in significant impacts. As with the proposed project, Alternative 3 would construct buildings with glass windows and façades, along with associated night lighting, which would have the potential to result in avian mortality due to collisions with these surfaces. However, because the total area of development for visitor-serving uses would be reduced under Alternative 3, the potential for birds to collide into buildings would be reduced; therefore, adverse impacts on the movement of migratory birds under Alternative 3 would be lessened as compared to the proposed action, but would remain significant. As with the proposed project, implementation of mitigation measures (MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-11) would reduce the operational impacts to less than significant. Mitigation Measures MM BIO-4 and MM BIO-5 are discussed previously under Construction above. Mitigation Measure MM BIO-7 includes rules for materials such as glass and façades that would reduce the chances of bird collisions. Mitigation Measure MM BIO-11 identifies requirements for ferry routes and scheduling efficiency to reduce the amount of time ferry's move through the water. Alternative 3 and the proposed project would result in a less than significant impact (after mitigation) on the movement of any native resident or migratory fish or wildlife species.

As with proposed project, operation of Alternative 3 would not conflict with any local policies or ordinances protecting biological resources, any adopted Habitat Conservation Plans or Natural Community Conservation Plans, or with any other approved local, regional, or State habitat conservation plans; there would be no impact.

Overall, impacts would be less than significant with mitigation incorporated and slightly less than the proposed project due to the reduced visitor-serving uses.

4.6.3.4 Cultural Resources and Tribal Cultural Resources

4.6.3.4.1 Construction

As discussed in Section 3.4 of this Draft EIR, no historical resources exist in the project site. Construction of both the proposed project or Alternative 3 would not involve the removal or otherwise affect any built-environment structures over 50 years old that are eligible for listing in the California Register of Historical Resources. Therefore, as with the proposed project, construction of Alternative 3 would not cause a substantial adverse change in the significance of a historical resource and there would be no impact.

Under the proposed project, there would be no impact to prehistoric or historic-period archaeological resources, previously undiscovered human remains, or tribal cultural resources because construction would occur within fill and previously disturbed areas without known resources. However, under Alternative 3, the elevation of the project site would not be raised with artificial fill except for the parking lot, which would be raised three feet. Therefore, the majority of utility and building foundation installation would occur within existing soil. As discussed in Section 3.4 of this Draft EIR, the site is covered with between two to 10-feet of artificial fill and no previously recorded prehistoric or historic-period archaeological resources or tribal cultural resources have been identified within the project site or surrounding area. Additionally, the site has already been greatly disturbed from previous development and the placement of the artificial fill. Therefore, there is low potential to encounter prehistoric or historic-period archaeological resources, previously undiscovered human remains, or tribal cultural resources. As Alternative 3 would require greater disturbance of existing soils, the potential impact to encounter previously undiscovered archaeological resources, tribal cultural resources, or human remains would be greater than that for the proposed project. However, given the low potential for existing soils to contain such resources, the impact on cultural resources would be less than significant under Alternative 3.

Overall, impacts would be less than significant and greater than the proposed project.

4.6.3.4.2 Operations

As with the proposed project, operation of Alternative 3 would not involve the demolition of any structures or otherwise affect any historical resources, nor would it involve any ground-disturbing activities, which could impact archaeological resources, tribal cultural resources, or previously undiscovered human remains. Therefore, as with the proposed project, there would be no impact on cultural resources and tribal cultural resources from operation of Alternative 3, and overall impacts would be similar to the proposed project.

4.6.3.5 Energy

4.6.3.5.1 Construction

As with the proposed project, there would be a temporary increase in energy consumption during construction of Alternative 3 due to construction activities and off- and on-road transportation fuel consumption. Under Alternative 3, the project site elevation would not be raised except for the parking lot, and the construction of visitor-serving uses would be reduced compared to the proposed project. This would shorten the construction period and reduce the number of truck trips and associated energy use that would occur during the construction period as compared to the proposed project. As with the proposed project, under Alternative 3, construction equipment would be well maintained and meet the appropriate tier ratings in accordance with CALGreen or U.S. Environmental Protection Agency (USEPA) emissions standards so that energy efficiency is achieved consistent with relevant applicable State and

local plans. As with the proposed project, construction of Alternative 3 would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.5.2 Operations

While increased demand for energy would occur under the proposed project, the impact would be less than significant. Alternative 3 would include similar energy demand for the ferry terminal and ferry service, and would also include electric vehicle (EV) charging infrastructure in the parking lot and would accommodate a future conversion to zero-emission propulsion technology, and include space in the ferry float for the possible future installation of electric vessel charging infrastructure. The 43-percent reduced size of the visitor-serving uses would result in reduced energy demand as compared to the proposed project. However, additional stormwater infrastructure, including pumps, would partially offset the reduced energy demand. Overall, the energy demand would be slightly reduced under Alternative 3 as compared to the proposed project. As with the proposed project, the operation of Alternative 3 would be required to comply with the latest California Building Standards Code (CBSC), CALGreen, and Redwood City Municipal Code requirements, which would decrease energy consumption and promote renewable energy. Therefore, as with the proposed project, operation of Alternative 3 would not result in wasteful, inefficient, or unnecessary natural gas consumption nor would it conflict with or obstruct a State or local plan for renewable energy or energy efficiency; the impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.6 Geology, Soils, and Paleontological Resources

4.6.3.6.1 Construction and Operations

As discussed in Section 3.6 of this Draft EIR, the project area is not within any active faults; however, it is in a seismically active area with the potential for ground shaking and a high susceptibility to liquefaction and settlement. As with the proposed project, the construction and operation of all project components under Alternative 3 would comply with up-to-date building code requirements and recommendations identified in the site-specific soils and geotechnical investigation and engineering analysis. This includes buildings on stilts/raised piles for sea level rise protection, which would be designed to reduce seismic risks through the use of shear walls, reinforced concrete X-bracing between columns, and secure attachment of floor beams to the foundation. Therefore, as with the proposed project, construction and operation of Alternative 3 would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction, nor would Alternative 3 result in substantial on- or off-site lateral spreading, subsidence, liquefaction, or collapse; or impacts related to expansive soils creating substantial direct or indirect risks to life or property. The impact would be less than significant.

Alternative 3 would not raise the site elevation except for the parking lot, which would substantially reduce construction duration and quantity of fill imported to the project site compared to the proposed project. However, ground disturbing activities to install the project components would be similar to the proposed project and have a similar potential for a temporary increase in soil erosion and loss of topsoil compared to existing conditions. As with the proposed project, construction of Alternative 3 would follow required erosion and sediment control measures, and any previously paved areas disturbed during

construction would be repaved at the close of construction. Therefore, the impact would be less than significant.

As with the proposed project, the project site would be covered with landscaping and hardscaping following completion of construction, which would reduce the potential for soil erosion to occur compared to existing conditions (primarily exposed compacted, soils). The impervious surfaces under Alternative 3, which would be slightly less than the proposed project, would drain into new permanent stormwater facilities and landscaping to prevent erosion and sedimentation. The drainage system would comply with National Pollutant Discharge Elimination System (NPDES) permit and stormwater design requirements and include additional drainage features such as swales and infiltration ponds to manage stormwater runup that could occur as result of sea level rise. Ferry operations would be the same as the proposed project, including vessel speed requirements that would reduce wake wash. As with the proposed project, operation of Alternative 3 would not result in substantial soil erosion or the loss of topsoil; the impact would be less than significant.

As with the proposed project, construction of the ferry terminal and visitor-serving uses under Alternative 3 would involve deep pile driving, which may penetrate beneath the artificial fill and Bay Mud that underlie the project site and encounter Pleistocene alluvium. Pleistocene alluvium has a high potential for containing significant vertebrate fossils and specimens encountered during pile driving would be damaged or destroyed by the construction equipment. This would be a significant impact. The depth of the Bay Mud varies in thickness from approximately 20 to 40 feet and although the site elevation would not be raised under Alternative 3 except for the parking lot, the only construction activities that would reach Pleistocene alluvium is deep pile driving. Therefore, Alternative 3 would have the same impact as the proposed project. Implementation of Mitigation Measure MM GEO-1, which requires a qualified paleontologist to prepare a Paleontological Mitigation Plan (PMP) that identifies procedures for monitoring, recovery, and curation of significant paleontological finds encountered during excavation, would reduce impacts on paleontological resources to less than significant where monitoring is feasible. However, as with the proposed project, under Alternative 3 there would be activities where monitoring would not be feasible (e.g., offshore pile driving and if piles are driven into the soils without prior excavation); thus, as with the proposed project, construction of Alternative 3 would result in a significant and unavoidable impact on paleontological resources. Overall, impacts would be similar to the proposed project.

Operations of all components of Alternative 3 would not involve any ground disturbing activities which would expose or encounter deposits of Pleistocene alluvium. As with the proposed project, operation of Alternative 3 would have no impact on paleontological resources, and overall impacts would be similar to the proposed project.

4.6.3.7 Greenhouse Gas Emissions

4.6.3.7.1 Construction

As with proposed project, construction of Alternative 3 would have a short-term increase in GHG emissions. There would be less construction under Alternative 3 as compared to the proposed project, as the project site would not be elevated except for the parking lot, and the amount of development for visitor-serving uses would be reduced. To account for GHG emissions from construction, construction GHG

emissions were amortized over an expected lifetime of 30 years[28, 29] and included in the operational emission estimates, which, as discussed below, would be less than significant. Overall, impacts would be less than significant and less than the proposed project.

4.6.3.7.2 Operations

Alternative 3 would have the same GHG emissions associated with ferry operations as the proposed project, but reduced GHG emissions associated with the reduced visitor-serving uses. Thus, operation of Alternative 3 would have less GHG emissions than the proposed project; both the proposed project and Alternative 3 would achieve a net reduction in GHG emissions, and would therefore not exceed the net-zero threshold. Neither Alternative 3 nor the proposed project would generate significant GHG emissions or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be less than significant. Overall, impacts would be less than the proposed project.

4.6.3.8 Hazards and Hazardous Materials

4.6.3.8.1 Construction and Operations

Construction and operation of Alternative 3 would use the same types of hazardous materials as the proposed project (e.g., vehicle fuels, oils, solvents, transmission fluids, paints, common cleaning products, and pesticides). Ferry operations under Alternative 3 would be the same as the proposed project and would be operated in compliance with all applicable regulations related to fueling and management of hazardous substances. As with the proposed project, under Alternative 3, storage, handling, and disposal of hazardous materials would be required to comply with all applicable federal, State, and local regulations. Thus, as with the proposed project, Alternative 3 would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

Limited concentrations of diesel fuel were detected in two soil samples collected from the project site (see Section 3.8 of this Draft EIR). Under the proposed project, the project site would be elevated and project elements would be installed in the new fill instead of existing soil. While this would avoid much of the potential exposure to the diesel fuel, the proposed project would include pile driving into existing soil, resulting in significant impacts. Under Alternative 3, the 9.2-acre project site would not be elevated except for the parking lot, which would be raised three feet. Therefore, most construction under Alternative 3, including utilities, structures, landscaping, and drainage, as well as the pile driving, would be installed within existing soils. Thus, while the overall amount and duration of construction activities would be less than under the proposed project, the chances of potential exposure to hazardous material would be higher than the proposed project, and the impact would remain significant. The proposed project would require implementation of Mitigation Measure MM HAZ-1, a Phase II Environmental Site Assessment (ESA) to determine whether contaminated soils are present on the project site and if so, to develop a Soil Management Plan to address handling and treatment and/or disposal of contaminated soil prior to

[28] Amortized construction emissions assume a 30-year lifetime for the project as most buildings begin needing renovations and improvements after approximately 30 years. Should the lifetime of the project extend beyond 30 years before substantive renovations are necessary, the amortized construction emissions would be lower.

[29] International Energy Agency. March 2008. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings. IEA Information Paper. Available: https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building_Codes.pdf.

excavation and construction activities. If the Phase II ESA identifies that there is a potential for vapor intrusion, MM HAZ-1 also requires a Soil Vapor Survey with an accompanying human health risk assessment that identifies how this risk would be managed. This mitigation would reduce impacts from construction of the proposed project to less than significant. Alternative 3 would require the same mitigation and adherence to regulations; the impact would be less than significant.

As described for construction, there would be increased disturbance of existing soil under Alternative 3 because, except for the parking lot, the site would not be elevated, increasing the potential to encounter contamination. Should contaminated soils be encountered, remediation would occur as required by MM HAZ-1. If there is a greater amount of remediation that occurs under Alternative 3, there would be a decreased risk of soil gas being present at the project site. However, because there would continue to be potential for soil gas to occur (i.e., below the depths of soils disturbed during construction), the potential for soil gas intrusion to occur within the enclosed structures remains a significant impact. Therefore, as with the proposed project, operation of Alternative 3 would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The impact would be significant. Mitigation Measure MM HAZ-1 which requires that if the Phase II ESA identifies that there is a potential for vapor intrusion, a Soil Vapor Survey must be conducted with an accompanying human health risk assessment that identifies how this risk would be managed, would reduce this risk to less than significant.

As with the proposed project, Alternative 3 would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no ground disturbance would occur within the areas located within 0.25-mile of several sites where soil and/or groundwater contamination has been identified. The impact would be less than significant.

As with the proposed project, Alternative 3 would be outside of the San Carlos Airport safety zones and noise contours (discussed further in **Section 4.6.3.11**); therefore, construction and operation of Alternative 3 would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact.

Overall, construction-related impacts would be less than significant with mitigation incorporated and greater than the proposed project. Operations-related impacts would be less than significant with mitigation incorporated and would be similar to the proposed project.

4.6.3.9 Hydrology and Water Quality

4.6.3.9.1 Construction and Operations

Regarding water quality, as with the proposed project, discussed in Section 3.9 of this Draft EIR, construction and operation of Alternative 3 would comply with regulatory and federal, State, and regional/local permit requirements and would therefore not violate any water quality standards, waste discharge requirements, or substantially degrade surface or ground water quality; the impact would be less than significant. Further, Alternative 3 would not obstruct or conflict with implementation of a water quality control plan or a sustainable groundwater management plan and there would be no impact.

Groundwater at the project site was encountered at approximately 8.5 feet beneath the ground surface during geotechnical investigations. Unlike the proposed project, Alternative 3, except for the parking lot, would not include raising the elevation of the project site during construction. While most construction except for pile driving is expected to occur above this elevation, there is a higher potential to encounter

groundwater during construction of Alternative 3 than the proposed project. Any dewatering would occur in compliance with Attachment J of the Construction General Permit, as discussed in Section 3.9 of this Draft EIR. Because the overall project site would not be elevated under Alternative 3, the infiltration depth for water to reach the aquifer would not increase. However, there are no existing users of groundwater in this location and the project is near the tidal zone and at the downstream end of the aquifer, there would be no impacts to recharge of the aquifer under either Alternative 3 or the proposed project. As with the proposed project, construction and operation of Alternative 3 would not substantially decrease groundwater supplies for drinking water or other uses, interfere with recharge, or impede sustainable groundwater management of the basin. There would be no impact.

Under Alternative 3, the overall amount and duration of construction activities would be less than under the proposed project. This would result in a similar but slightly reduced potential for temporary construction-related hydrology and water quality impacts related to erosion and siltation, the amount and rate of surface runoff, and drainage. As discussed in Section 3.9 of this Draft EIR for the proposed project, temporary BMPs would be implemented during construction to minimize erosion and siltation on-and off-site and stormwater infrastructure would be designed, constructed, and maintained in compliance with State, County, and City requirements. Alternative 3 would implement the same BMPs and follow the same requirements. Therefore, construction of Alternative 3 would have a less than significant impact on the existing drainage patterns of the area.

Under Alternative 3, the project site elevation would not be raised except for the parking lot. While the project site would not impede or redirect flood flows, the site would be less protected from flooding, including from predicted sea level rise, as compared to the proposed project. To reduce the impacts of flooding, Alternative 3 would include strategies discussed in **Section 4.5.3**, such as constructing infiltration areas along the project's boundaries and infiltration ponds that could safely capture, channel, and infiltrate water that may accumulate on-site from storms or wave run-up during high tide. The ferry access pier would be constructed on a raised elevation that is a minimum 4 feet, the parking lot would be raised 3 feet, and the buildings for the visitor-serving uses would be constructed on piles with water-resistant materials. Further, Alternative 3 would result in an increase in impervious surface area; however, the increase would be less than that of the proposed project due to smaller visitor-serving building footprints and the incorporation of swales and infiltration areas. As with the proposed project, this impervious surface could contain pollutants, such as oils, grease, and trash generated by ferry and visitor-serving uses that could be transferred into water bodies during a flood. Therefore, the risk of release of pollutants from inundation due to the proximity of the project site in a flood hazard, tsunami, or seiche zone, and due to future sea level rise, would be higher under Alternative 3 than the proposed project, but still less than significant.

As with the proposed project, construction and operation of Alternative 3 would comply with the Basin Plan, and federal, State, and local regulations related to water quality control discussed in Section 3.9 of this Draft EIR. Alternative 3 would not obstruct or conflict with implementation of a water quality control plan or a sustainable groundwater management plan. Therefore, there would be no impact.

Overall, construction-related impacts would be less than significant with mitigation incorporated and less than the proposed project. Operations-related impacts would be less than significant with mitigation incorporated and greater than the proposed project.

4.6.3.10 Land Use

As discussed in Section 3.10 of this Draft EIR, with a zone change and an amendment to the Seaport Plan to allow the visitor-serving uses, the proposed project would not conflict with applicable land use plans and policies and there would be no impact. Alternative 3 would include the same project components, but with reduced visitor-serving uses square footage. As with the proposed project, with a zone change and an amendment to the Seaport Plan, Alternative 3 would be consistent with applicable land use plans and policies and there would be no impact. However, with the reduced visitor-serving uses, Alternative 3 would be less supportive of Port's 2020 Vision Plan policies to build economic opportunities for the Port's commercial areas. Overall, there would be no impact, and impacts would be greater than the proposed project.

4.6.3.11 Noise and Vibration

4.6.3.11.1 Construction

Although the overall construction intensity and duration of Alternative 3 would be less than that of the proposed project, there would be no material difference in the potential for significant construction noise impacts. The area of development for the visitor-serving uses of Alternative 3 would be slightly smaller than the proposed project, but in the same general location where there are no noise-sensitive receptors nearby. The type of construction equipment to be used, and the type of construction activities to occur (e.g., demolition of existing uses, site preparation, building construction, and roadway construction) would be similar between Alternative 3 and the proposed project. However, no raising of the site elevation and associated truck trips would occur, except for raising the parking lot by three feet. As with the proposed project, Alternative 3 would require pile driving, which would generate maximum instantaneous noise levels during construction. However, noise from construction would not exceed noise thresholds at any off-site sensitive receptors, because the nearest sensitive receptors are located away from the site. Therefore, as with the proposed project, Alternative 3 would have a less than significant impact relative to construction noise.

As discussed in Section 3.11 of this Draft EIR, vibration due to construction activities of the proposed project would not exceed the California Department of Transportation (Caltrans) thresholds for damage to buildings adjacent to the project area. Construction activities that could be a source of vibration include demolition, site preparation work, foundation work (including pile driving activities), and new building framing and finishing. Alternative 3 would require the same vibration-generating construction activities and would be in the same location as the proposed project. Thus, as with the proposed project, construction of Alternative 3 would have a less than significant impact related to vibration.

The project area is outside the 65 dB CNEL noise contours for the San Carlos Airport and San Francisco International Airport. As such, as with the proposed project, construction of Alternative 3 would not expose people residing or working in the project area to excessive noise levels from aircraft operations; the impact would be less than significant.

Overall, construction-related impacts would be less than significant with mitigation incorporated and less than the proposed project.

4.6.3.11.2 Operations

Operations-related noise impacts associated with Alternative 3 would not be materially different than those of the proposed project. Alternative 3 would have the same operational noise-generating activities

(i.e., project traffic, ferries, mechanical equipment, parking lot noise, and truck maneuvering noise) as the proposed project; however, there would be fewer visitor trips and delivery truck trips due to the smaller size of the visitor-serving uses under Alternative 3. As discussed in Section 3.11 of this Draft EIR, operation of the proposed project would not result in a significant permanent noise level increase or permanent operational noise exceeding the City of Redwood's thresholds. Additionally, operational noise levels generated by the proposed project would not exceed existing ambient noise levels at off-site receptors surrounding the project site. Therefore, as with the proposed project, operation of Alternative 3 would have a less than significant impact related to noise.

As with the proposed project, operation of Alternative 3 would include ferry departure, idling, and arrival; stationary mechanical equipment; truck deliveries; and parking lot activities; however, there would be fewer visitor trips and delivery truck trips due to the smaller size of the visitor-serving uses under Alternative 3. Each of these on-site activities would generate perceptible vibration when receptors are located in close proximity to the operating object. However, buildings surrounding the site would be too far away for vibration to be perceptible. Thus, as with the proposed project, vibration due to operation of Alternative 3 would have no impact on the surrounding receptors.

As identified previously, as with the proposed project, Alternative 3 would not expose people residing or working in the project area to excessive noise levels from aircraft operations; the impact would be less than significant.

Overall, operations-related impacts would be less than significant with mitigation incorporated and less than the proposed project.

While the individual noise impacts under the proposed project would be less than significant, the proposed project's traffic noise contribution to an individual effect would be cumulatively considerable. This would also be the case under Alternative 3. As described in Section 3.11.5.4 of Section 3.11, liveaboards located with 300 feet of Seaport Boulevard would be exposed to a noise level increase of more than 3 dBA CNEL under both Cumulative Plus Ferry Terminal and Cumulative Plus Full Project conditions, and an increase over the Cumulative (no project) scenario of more than 1 dBA CNEL, which would be a significant impact. Under Alternative 3, while vehicle trips associated with the visitor-serving uses would be less than the proposed project, vehicle trips associated with operation of the ferry terminal would be the same as compared to the proposed project and would therefore, result in a similar cumulative impact as the proposed project. Thus, operation of Alternative 3 would have a significant cumulative impact relative to traffic noise. As with the proposed project, implementation of Mitigation Measure MM NOI-1, which requires the raising of an existing berm between Seaport Boulevard and the Port of Redwood City Municipal Marina, would reduce the cumulative impact to less than significant, making it not cumulatively considerable. Thus, as with the proposed project, the traffic noise cumulative impact would be less than significant with implementation of mitigation, and overall cumulative impacts would be less than the proposed project.

4.6.3.12 Public Services

4.6.3.12.1 Construction

As with the proposed project, the City of Redwood City Police Department (Police Department) would continue to provide law enforcement services and the City of Redwood City Fire Department (Fire Department) would provide fire services at the site during construction of Alternative 3. The overall

construction intensity and duration of Alternative 3 would be less than that of the proposed project because the project site would not be elevated, except for the parking lot, and the area of visitor-serving uses would be reduced; however, Seaport Boulevard widening and access improvements to the project site would still occur, which would result in lane closures. As with the proposed project, there would be no direct impacts on police or fire protection facilities. Construction activities would proceed in compliance with State and local codes governing safe construction practices, and a traffic control plan would be prepared to maintain emergency access and control vehicular circulation during construction. As with the proposed project, construction of Alternative 3 would not increase activity in the area such that police or fire response times would increase or new or expanded facilities would be required. Construction of Alternative 3 would have a less than significant impact on public services, and overall impacts would be less than the proposed project.

4.6.3.12.2 Operations

As with the proposed project, under Alternative 3, there would not be increased demand for police or fire protection services as a result of population growth. However, new uses would be established which would increase the number of people visiting, transiting, and working at the project site and vicinity. Under Alternative 3, although ferry ridership would be the same as under the proposed project, there would be fewer visitors to the site due to the smaller size of the visitor-serving uses. As with the proposed project, the project site is already served by the Police and Fire Departments and operation of Alternative 3 would not require additional police or fire protection staff or resources that are not currently planned for the area. Similar to the proposed project, ferry vessel operations would comply with emergency management protocols and safety requirements and the Port would provide the Fire Department and any other responding agency with inflatable buoyant apparatus (IBA), to supplement the ferry vessels' capacity. The IBAs provided to the Fire Department would ensure 100 percent IBA capacity is available to accommodate one 320-passenger ferry vessel. Alternative 3 would also include an amendment to the SF-VMAP to add the ferry vessels serving the Redwood City ferry routes to the list of participating organizations. Operation of Alternative 3 would not increase activity in the area such that response times would increase. Thus, operation of Alternative 3 would not require new or physically altered police or fire protection facilities that would cause significant environmental impacts. The impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.13 Recreation

4.6.3.13.1 Construction

As with the proposed project, Alternative 3 includes the expansion of the Bay Trail and construction of a Class I bicycle trail and ADA-compliant sidewalk. As discussed In Section 3.13 of this Draft EIR, construction of the Bay Trail and Class I bicycle trail and sidewalk connections has been evaluated as part of the proposed project in context with other physical effects on the environment in applicable sections of this Draft EIR (in particular, see Sections 3.2, Air Quality; 3.9, Hydrology and Water Quality; and 3.14, Transportation). As with the proposed project, policies, regulations, and mitigation measures (i.e., Mitigation Measure MM AQ-1), identified in those sections and other Draft EIR sections would also apply to the construction of the Bay Trail under Alternative 3 and further reduce impacts related to adverse physical effects on the environment. As with the proposed project, construction of Alternative 3 would not result in a substantial increase in the use of parks and other recreational facilities within the project area and surroundings, nor would it create additional demands for recreational facilities that would

require the construction of any other new recreational facilities or expansion of existing recreational facilities not otherwise evaluated in this EIR. Construction of Alternative 3 would have a less than significant impact on recreation, and overall impacts would be similar to the proposed project.

4.6.3.13.2 Operations

Under the proposed project, operational impacts relative to recreation would be less than significant. As with the proposed project, Alternative 3 would include the expansion of the Bay Trail and a new Class I bicycle trail and ADA-compliant sidewalk. While the number of ferry users would remain the same, the square footage of the visitor-serving uses under Alternative 3 would be smaller than the proposed project, and thus, Alternative 3 would attract slightly fewer users to the project area. This would slightly reduce the amount of new patrons using the existing and new recreational facilities in the project area. As with the proposed project, operation of Alternative 3 would not result in a substantial increase in the use of parks and other recreational facilities within the project area and surroundings nor would it create additional demands for recreational facilities that would require the construction of any other new recreational facilities or expansion of existing recreational facilities not otherwise evaluated under the proposed project. Operation of Alternative 3 would have a less than significant impact relative to recreation, and overall impacts would be less than the proposed project.

4.6.3.14 Transportation

4.6.3.14.1 Construction

As with proposed project, construction of Alternative 3 would temporarily increase construction trips and require temporary lane closures. Compared to the proposed project, there would be fewer haul trips for construction of Alternative 3, as the project site would not be elevated except for the parking lot, and the area of development for visitor-serving uses would be reduced. As with the proposed project, construction of Alternative 3 would be coordinated with Pacific Shores Center management, the City, and local emergency services and conducted under required permits and a traffic control plan, with all roadway and site access modifications designed to meet State and local codes, emergency access requirements, and the City's Engineering Standards. The impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.14.2 Operations

As discussed in Section 3.14 of this Draft EIR, operation of the proposed project would increase visitors and generate new trips to the project site but would also improve circulation patterns through roadway improvements and development of the 9.2-acre project site with the ferry terminal and visitor-serving uses. Alternative 3 would have the same effects; however, under Alternative 3, the maximum square footage of visitor-serving uses would be less, which would reduce visitor trips compared to the proposed project. Alternative 3, as with the proposed project, includes construction of a ferry terminal and supportive infrastructure, including a Class I bicycle trail and ADA-compliant sidewalk, which would add regional capacity to the transportation network, reduce VMT, and lower automobile dependence. Therefore, as with the proposed project, Alternative 3 would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; the impact would be less than significant.

Alternative 3 would have the same ferry operations as the proposed project. Thus, the VMT analysis for ferry operations under Alternative 3 would be the same as for the proposed project (see Section 3.14 of

this Draft EIR). Alternative 3 would generate fewer visitor trips than the proposed project because the area of visitor-serving development under Alternative 3 would be reduced. Thus, VMT for visitor-serving uses would be lower under Alternative 3 than under the proposed project. As discussed in Section 3.14 of this Draft EIR, visitor-serving uses under the proposed project would not exceed the countywide per capita VMT thresholds for the hotel-, restaurant-, and office-related land uses. Therefore, operation of Alternative 3 would be consistent with CEQA Guidelines Section 15064.3, Subdivision (b), and the impact would be less than significant.

Alternative 3 would include construction of the same roadway improvements (e.g., widening Seaport Boulevard) as the proposed project. As with the proposed project, construction under Alternative 2 would follow California Manual on Uniform Traffic Control Devices (MUTCD) requirements and would require coordination with the Pacific Shores Center property owner and a City encroachment permit with a traffic control plan to ensure roadway work does not increase hazards. Access improvements and site modifications for Alternative 3 would be implemented in accordance with the City's Engineering Standards and would be subject to City review and approval. Thus, construction and operation of Alternative 3 would not substantially increase hazards due to a geometric design feature or incompatible uses; the impact would be less than significant.

Further, both the proposed project and Alternative 3 would provide an additional transportation option in the event of an emergency event or evacuation. Therefore, similar to the proposed project, Alternative 3 would not result in inadequate emergency access or interfere with implementation of an emergency response plan or emergency evacuation plan; the impact would be less than significant.

Overall, impacts would be less than significant and less than the proposed project.

4.6.3.15 Utilities and Service Systems

4.6.3.15.1 Construction

Under the proposed project, construction impacts relative to utilities and service systems would be less than significant. All new utility installations and connections that would be required under the proposed project would also be required under Alternative 3. However, under Alternative 3, the majority of new utilities would be installed within existing soils and not within new fill, as would occur under the proposed project. Further, installation of the utilities would have to take future sea level rise into account through measures such as the inclusion of backflow devices to stop intrusion into drainage pipes and flood proofing to increase resiliency to site flooding and rising groundwater levels. The project site's stormwater drainage system would also be expanded as compared to the proposed project to handle a larger amount of stormwater that would accumulate during storms and high tides. This would include the provision of expanded infiltration areas along the project's boundaries such as swales and infiltration ponds designed to capture and infiltrate collected stormwater. Overflows would be directed into the stormwater collection system and/or the adjacent waterways. As discussed in Section 3.15 of this Draft EIR, for construction of the utilities, including the stormwater system, any rules, regulations, and mitigation measures (as applicable) identified throughout this Draft EIR would apply to the construction of the expanded stormwater system.

With the exception of the expanded stormwater system, the scale of the utilities installed for the visitor-serving uses may be reduced compared to the proposed project because the development would be smaller and thus, less capacity would be required. The impact would be less than significant.

As with the proposed project, under Alternative 3, water usage for construction would be temporary and include use of recycled water and off-site water sources. Construction of Alternative 3 would not substantially deplete the City's potable water supplies and the impact would be less than significant. Under Alternative 3, generation of wastewater and solid waste during construction would be similar or slightly reduced compared to the proposed project because the development size and construction duration would be reduced compared to the proposed project.

Overall, construction impacts relative to utilities and service systems under Alternative 3 would be similar or less than the proposed project; the impact would be less than significant, and overall impacts would be less than the proposed project.

4.6.3.15.2 Operations

As described in Section 3.15 of this Draft EIR, while increased demand for utilities would occur under the proposed project, such impacts would be less than significant. Under Alternative 3, water and electricity demand, wastewater generation, and solid waste disposal for the ferry terminal would be the same as for the proposed project. Under Alternative 3, the total maximum square footage of the visitor-serving uses would be approximately 43 percent less than that of the proposed project and, thus, the demand for utilities would also be reduced. As with the proposed project, operation of Alternative 3 would adhere to State and local standards, CALGreen Building Code, the California Plumbing Code, and the Redwood City Municipal Code, which would serve to reduce the demand for utilities.

Therefore, overall, the utility demand would be less under Alternative 3 as compared to the proposed project and the impact would be less than significant.

Because the project site elevation would not be raised except for the parking lot, sea level rise, combined with storms and high tides, could result in increased accumulation of stormwater on-site. As discussed under **Section 4.6.3.15.1** for construction above, additional stormwater infrastructure, including swales and infiltration ponds, would be installed on-site. This would accommodate the increased amount of stormwater and the impact would be less than significant. Also, the reduced size of the development would reduce the amount of impervious surfaces at the project site as compared to the proposed project.

Neither Alternative 3 nor the proposed project would result in significant impacts related to utilities. Operational impacts under Alternative 3 would be less than significant, and overall impacts would be less than the proposed project.

4.7 Summary Comparison of Alternatives

A comparative summary of the environmental impacts under each alternative with the environmental impacts associated with the proposed project is provided in **Table 4-1**. A more detailed description of the potential impacts associated with each alternative is provided above. Pursuant to Section 15126.6(c) of the CEQA Guidelines, the analysis below addresses the ability of the alternatives to "avoid or substantially lessen one or more of the significant effects" of the proposed project.

Table 4-1 Summary Comparison of Impacts Associated with the Proposed Project and Alternatives

Environmental Resource	Proposed Project	Alternative 1: No Project	Alternative 2: No Project Reasonably Foreseeable Uses	Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development
Aesthetics				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Air Quality				
Construction	Less Than Significant with mitigation	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	**Significant and Unavoidable**	No Impact (-)	No Impact (-)	Less than Significant (-)
Biological Resources				
Construction	Less Than Significant with mitigation	No Impact (-)	No Impact (-)	Less Than Significant with mitigation (=)
Operations	Less Than Significant with mitigation	No Impact (-)	No Impact (-)	Less Than Significant with mitigation (-)
Cultural Resources and Tribal Cultural Resources				
Construction	No Impact	No Impact (-)	No Impact (-)	Less than Significant (+)
Operations	No Impact	No Impact (=)	No Impact (=)	No Impact (=)
Energy				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Geology, Soils, and Paleontological Resources				
Construction	**Significant and Unavoidable**	No Impact (-)	No Impact (-)	**Significant and Unavoidable** (=)
Operations	No Impact	No Impact (-)	No Impact (-)	No Impact (=)
Greenhouse Gas Emissions				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Hazards and Hazardous Materials				
Construction	Less Than Significant with mitigation	No Impact (-)	No Impact (-)	Less Than Significant with mitigation (+)
Operations	Less Than Significant with mitigation	No Impact (-)	No Impact (-)	Less Than Significant with mitigation (=)

Environmental Resource	Proposed Project	Alternative 1: No Project	Alternative 2: No Project Reasonably Foreseeable Uses	Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development
Hydrology and Water Quality				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (+)
Land Use				
Operations	No Impact	No Impact (-)	No Impact (-)	No Impact (+)
Noise and Vibration				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less Than Significant	No Impact (-)	No Impact (-)	Less Than Significant (-)
Cumulative	Less Than Significant Cumulative Impact with mitigation	No Impact (-)	No Impact (-)	Less Than Significant Cumulative Impact with mitigation (-)
Public Services				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Recreation				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (=)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Transportation				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Utilities and Service Systems				
Construction	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)
Operations	Less than Significant	No Impact (-)	No Impact (-)	Less than Significant (-)

Source: CDM Smith Team 2026.
Key: (+) = impact is greater than the proposed project; (=) = impact is similar to the proposed project; (-) = impact is less than the proposed project.

4.8 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of alternatives includes: Alternative 1: No Project Alternative, Alternative 2: No Project Alternative – Reasonably Foreseeable Uses, and Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development. The following evaluates each alternative relative to being the environmentally superior alternative.

4.8.1 Alternative 1: No Project

Under Alternative 1, there would be no construction- or operations-related activities and impacts. The project site would be vacant and unused. Alternative 1 would avoid the proposed project's significant and unavoidable operational impact related to air quality (NO_X emissions) and construction impact related to paleontological resources. However, without a ferry terminal and ferry service, Alternative 1 would not provide the benefits of reduced regional VMT and corresponding reduced overall air pollutant emissions, GHG emissions, and fuel use as with the proposed project. Additionally, Alternative 1 would be inconsistent with regional and local programs and plans related to land use and the circulation system. Although Alternative 1 would be inconsistent with adopted regional and local plans and programs and not achieve the environmental benefits from reduced regional VMT and associated reductions in overall air pollutant emissions, GHG emissions, and fuel use, Alternative 1 would avoid the significant and unavoidable impact related to air quality (NO_x emissions) and paleontological resources of the proposed project.

4.8.2 Alternative 2: No Project Alternative – Reasonably Foreseeable Uses

Under Alternative 2, there would be no construction- or operations-related activities and impacts. However, the Port would continue to lease the site for marine industrial uses. Alternative 2 would avoid the proposed project's significant and unavoidable operational impact related to air quality (NO_X emissions) and construction impact related to paleontological resources. Alternative 2 would be inconsistent with regional and local programs and plans related to land use and the circulation system. In addition, the net reduction in overall air pollutant emissions, GHG emissions, and fuel use that would occur under the proposed project due to the net reduction of regional VMT would not occur under Alternative 2. Although Alternative 2 would be inconsistent with adopted regional and local plans and programs and not achieve the environmental benefits from reduced regional VMT, overall air pollutant and GHG emissions, and fuel use, Alternative 2 would avoid the significant and unavoidable impact related to air quality (NO_x emissions) and paleontological resources of the proposed project.

4.8.3 Alternative 3: Hybrid Sea Level Rise Adaptation / Reduced Development

Because Alternative 3 would have reduced square footage of visitor-serving uses, particularly for the restaurant, the number of visitors coming to the site would be reduced. Thus, VMT would decrease, and implementation of Alternative 3 would avoid the significant and unavoidable impact on air quality that would occur under operation of the proposed project.

As with the proposed project, Alternative 3 would result in a significant and unavoidable impact on paleontological resources during construction due to pile driving activities because not all pile driving activities could be monitored for paleontological resources as required under Mitigation Measure MM GEO-1. Although Alternative 3 would involve more excavation into existing soils because the project site would be not elevated except for the parking lot, the amount of disturbance of Pleistocene alluvium (where fossils may be present) would be similar and therefore, the potential to damage or destroy significant vertebrate fossils and specimens would be the same.

Alternative 3 and the proposed project would have the same in-water construction and similar environmental impact determinations for most resources. Additionally, similar mitigation measures would be applied to reduce significant impacts. However, because Alternative 3 would not include the import of fill to raise the project site elevation except for the parking lot and would have less square footage of visitor-serving uses, construction activities and duration would be reduced. This would lead to similar but reduced impacts during construction as compared to the proposed project, such as lower air pollutant emissions and shorter duration of construction noise generation. For operations, as identified previously, Alternative 3 would result in fewer visitor trips to and from the project site, which would reduce VMT. Additionally, operational energy use, air pollutant emissions, and GHG emissions would be lower than the proposed project, as the size of the visitor-serving uses would be reduced. The smaller building footprint under Alternative 3 would also reduce the increase in impervious surface, thereby reducing the potential for water quality and stormwater runoff impacts.

However, because the project site would not be elevated under Alternative 3, except for the parking lot, there would be increased excavation into existing soils and increased stormwater infrastructure needs; this would increase the potential for impacts related to cultural resources, hazards and hazardous materials, hydrology and water quality (i.e., encountering groundwater), and utilities. Such impacts would be less than significant because of adherence to established permits and implementation of mitigation measures. Further, Alternative 3 would not provide the same protection from sea level rise as the proposed project, as it would not elevate the site to the recommended elevation identified in the City's Sea-Level Rise Vulnerability and Adaptation Planning Study.[30] Thus, Alternative 3 would have an increased risk of flooding and potential for release of pollutants from inundation as compared to the proposed project; however, the impact would be less than significant because of additional measures/strategies to address sea level rise (e.g., infiltration areas and raising buildings on stilts).

[30] City of Redwood City. July 2024. Sea-Level Rise Vulnerability and Adaptation Planning Study. Prepared by ESA. Available: https://www.redwoodcity.org/home/showpublisheddocument/29094/638645836880630000.

Alternative 3 would construct a ferry terminal and ferry service and would therefore provide similar benefits related to reduction of regional VMT and GHG emissions as the proposed project. Additionally, because of the inclusion of the ferry terminal and visitor-serving uses, Alternative 3 would implement the access and connectivity modifications as under the proposed project and thus would provide similar benefits to transportation energy and operational efficiency.

4.8.4 Conclusion

As described above and shown on **Table 4-1**, Alternative 1 (the No Project Alternative), Alternative 2 (the No Project Alternative – Reasonably Foreseeable Uses), and Alternative 3 (the Hybrid Sea Level Rise Adaptation / Reduced Development Alternative) would result in different trade-offs compared to the proposed project (e.g., varying levels of construction disturbance, differences in long-term operational impacts, and distinct implications for sea level rise resilience and public access), which are dependent on the specific resource areas. Individuals and decision-makers may weigh these resource areas differently. Alternative 1 would not involve any construction activities and would not have any operational air pollutant emissions and is therefore considered to be the environmentally superior alternative. However, under CEQA, if the No Project alternative is environmentally superior, an EIR is required to determine if an environmentally superior alternative exists among the other alternatives. Alternative 2 would also not have any construction activities and would not result in an exceedance of the Air District's daily or annual criteria pollutant emission thresholds, and it is therefore considered to be the next environmentally superior alternative. However, Alternative 2 is a variation of a No Project alternative.

Based on this comparison of environmental analysis, Alternative 3 is, therefore, considered the environmentally superior alternative. Under Alternative 3, the significant but mitigable impact on air quality during construction of the proposed project would be less than significant and no mitigation would be required. Additionally, operation of Alternative 3 would not result in an exceedance of the Air District's daily or annual criteria pollutant emission thresholds and would thereby avoid the significant and unavoidable operational impact on air quality. Impacts to paleontological resources during construction would be significant and unavoidable as with the proposed project. Because ferry operations would remain the same but visitor-serving uses would be reduced, Alternative 3 would have reduced construction impacts and reduced VMT, air pollutant emissions, GHG emissions, and fuel use as compared to the proposed project.

Chapter 5
Other CEQA Considerations

5.1 Introduction

Pursuant to Sections 15130 and 15126.2 of the CEQA Guidelines, this chapter identifies significant environmental effects which cannot be avoided if the proposed project is implemented, and describes significant irreversible environmental changes and growth-inducing impacts.

5.2 Significant Unavoidable Impacts

Based on the detailed analysis provided in Sections 3.1 through 3.15, the proposed project would result in the following significant and unavoidable impacts during construction and/or operation.

5.2.1 Air Quality

5.2.1.1 Operation

Operation of the visitor-serving uses, concurrent with operation of the ferry terminal, would result in a cumulatively considerable net increase of nitrogen oxides (NO_X), an ozone precursor. Because the San Franscico Bay Area Air Basin (SFBAAB) is designated non-attainment under applicable federal or State ambient air quality standards for ozone, this impact would be significant. The NO_X emissions exceedance during full operation in 2028 would principally be the result of the operation of the diesel ferries, which would be equipped with engines meeting U.S. Environmental Protection Agency (USEPA) Tier 4 emission standards for NO_X and particulate matter, and the added vehicle miles traveled (VMT) generation from visitors traveling to and from the visitor-serving uses. As discussed in Section 3.2.5.2.4, there is no feasible mitigation available to reduce mobile source emissions. Therefore, operation of the proposed project would have a ***significant and unavoidable*** impact on air quality.

5.2.1.2 Cumulative Impacts

Operation of the ferry terminal and visitor-serving uses would exceed the Bay Area Air District's significance criteria for NO_X, which represents the level at which an individual project's contribution of NO_X emissions to regional air quality impacts would be cumulatively considerable. Consequently, the proposed project's impacts would be significant and it would cumulatively contribute to the non-attainment ozone designations of the SFBAAB. There is no feasible mitigation available to reduce mobile source emissions associated with the proposed project. Therefore, the cumulative impact from operation of the proposed project on air quality would be ***significant and unavoidable***.

5.2.2 Paleontological Resources

5.2.2.1 Construction

Construction of the ferry terminal and visitor-serving uses would require pile driving into Pleistocene alluvium to support the ferry dock, access pier, and structures associated with the visitor-serving use. Pleistocene alluvium is considered to have a high potential for containing significant vertebrate fossils, and thus, disturbance of the Pleistocene alluvium has the potential to damage or destroy a unique paleontological resource, which would be a significant impact. The only feasible mitigation is to require construction monitoring where feasible when the construction site is reasonably accessible and visible, where soil spoils can be reasonably observed, and where construction methods do not completely destroy any potential specimen. Mitigation Measure MM GEO-1 would reduce the significant impact to paleontological resources during construction where monitoring is feasible. However, if piles are driven into the soils without prior excavation, monitoring is not feasible because of the nature of how the piles are installed. Further, some of the piles would be installed offshore where monitoring is not feasible. Given the geological conditions of the project site, pile driving is required, and because monitoring during pile driving may not be feasible, construction of the proposed project would have a ***significant and unavoidable impact*** on paleontological resources.

5.2.2.2 Cumulative Impacts

Mitigation Measure MM GEO-1 would be implemented to address the proposed project's cumulatively considerable contribution to impacts relative to paleontological resources. However, even with implementation of Mitigation Measure MM GEO-1, the construction of the proposed project could destroy a unique paleontological resource, and the project would result in a cumulatively considerable contribution to impacts relative to paleontological resources. Impacts would remain ***significant and unavoidable*** after mitigation.

5.3 Significant Irreversible Environmental Effects

An evaluation of significant irreversible environmental effects that would be caused by implementation of the proposed project is required under CEQA Guidelines Section 15126.2(d). As indicated in Section 15126.2(d):

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

The environmental effects related to the implementation of the proposed project are discussed in Chapter 3 of this EIR. Construction and operation of the proposed project would require the long-term commitment of resources including building materials such as lumber, aggregate (sand and gravel), and metals (e.g., steel, copper, aluminum). Water would be used in construction for dust control and cement-mixing and during operation for landscaping and for restroom, hotel, restaurant, and office operational

and sanitation needs. Additionally, as addressed in detail in Section 3.5, Energy, the proposed project would require energy resources that entail sources such as electricity, natural gas, and various transportation-related fuels. Fossil fuels in the form of diesel oil and gasoline would be used for construction equipment and vehicles. During operations, diesel oil and gasoline would be used by vehicles coming into the project site and by maintenance equipment and vehicles. Electrical energy would be consumed during construction and operation for sources such as lighting, equipment/appliances, and climate control of buildings. Natural gas would be consumed in small quantities during operation, for uses such as hotel dryers and commercial cooking operations. As discussed in Chapter 2, Project Description, of this Draft EIR, this Draft EIR assumes that ferries would operate on renewable diesel consistent with current Water Emergency Transportation Authority (WETA) operations, although there is a program in place, the Rapid Electric Emission-Free (REEF) Ferry Program, to transition the fleet to zero-emission propulsion technology that includes electrification of ferry floats and development of high-speed, high-capacity zero-emission vessels (ZEV). Use of these renewable and non-renewable energy resources would be irretrievable and irreversible.

As discussed in Section 3.5, Energy, and Section 3.15, Utilities and Service Systems, of this Draft EIR, the amount and rate of consumption of these energy resources would be accommodated by existing supplies and would not require the development of any new sources of necessary raw materials. Additionally, the proposed project would be required to comply with the latest California Building Standards Code (CBSC), California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen"), and Redwood City Municipal Code requirements pertaining to efficiency and conservation standards which are discussed in Section 3.5 and Section 3.15. As identified therein, the consumption would not result in significant environmental impacts or result in the unnecessary, inefficient, or wasteful use of energy resources.

Although compliance with efficiency and conservation measures would reduce material and energy use during construction and operation of the proposed project, they would nevertheless be unavailable for other uses. The resources utilized for the proposed project would be permanently committed to the proposed project, and, therefore, would be considered irreversible.

5.4 Growth-Inducing Impacts

5.4.1 Direct Growth-Inducing Impacts

A project would directly induce growth if it would remove barriers to population growth (e.g., a change to a General Plan and Zoning Ordinance that allowed new residential development to occur) or if it would result in economic growth that triggers an increase in population and housing through new housing construction and/or an influx of workers from outside the region. The proposed project involves the redevelopment of a site within the Port of Redwood City and would not include any housing development. As described in Chapter 2, Project Description, the development contemplated under the proposed project is consistent with the Port's 2020 Vision Plan, which details future uses of the project site in expanding waterfront access and increasing visitor-service amenities. The proposed project is also consistent with the General Plan and, thus, would not generate unplanned job growth and/or unplanned visitor-generating amenities. The General Plan designates the site as (M) Marina, which allows a ferry terminal and supporting uses such as restaurants, retail shops, and other visitor-serving uses with a commercial floor area ratio of 0.5 and height of three-stories. Consistent with the General Plan, the

maximum square-footage of the proposed visitor-serving uses would have a floor area ratio of 0.5 and would not exceed three stories.

The proposed project would create new short- and long-term employment opportunities. As discussed in Section 3.12, Public Services, of this Draft EIR, depending on the phase of construction, it is estimated that between 2 and 44 construction workers would be on-site daily to construct the ferry terminal and between 8 and 44 construction workers would be on-site daily to construct the visitor-serving uses. While temporary construction-related jobs would be created, given the short-term duration of construction and challenging housing market, these employees would likely come from the existing large labor pool within the Redwood City and the greater San Francisco Bay area and would not likely relocate to be closer to the project area. It is anticipated that 8 crews of four people would be needed for ferry operations. The operation of recreation and visitor-serving uses would also result in up to approximately 400 new employment opportunities associated with the hotel and related facilities, restaurant, and the limited office uses. Since operation of the proposed project is expected to occur in staffing across WETA's service area, no population in-migration or relocation is expected. The U.S. Census estimates that in 2022, the City of Redwood City population was 80,512 and the San Mateo County population was 726,353. Commuting occurs regularly in the region; the City's Housing Element identifies that in 2018, Redwood City had 40,418 workers living within the City borders and an estimated 69,400 jobs.[1] The California Employment Development Department predicts that construction jobs within San Francisco and San Mateo counties will grow by 5.8 percent between 2022-2032, and leisure and hospitality jobs will grow by 26.6 percent between 2022-2032.[2] Due to the growing nature of these fields, it can be assumed that there would be a sufficient existing labor market in the City and the region as a whole to fill the jobs. Further, given the highly-integrated nature of the Bay Area economy and the prevalence of cross-county and intercommunity commuting due to the challenging housing market, it is unlikely that workers would need to change their place of residence in response to the proposed project. Consequently, there would not be an increased need for new housing, considering that no significant increase in the local population would be triggered by implementation of the proposed project.

Therefore, because the proposed project would (1) not increase housing development and (2) not significantly impact the regional economy in a manner that would increase population and housing levels, the proposed project is not expected to have a substantial direct growth-inducing impact.

5.4.2 Indirect Growth-Inducing Impacts

A project would indirectly induce growth if it would remove obstacles to population growth or trigger the construction of new community service facilities that could increase the capacity of infrastructure in an area that currently meets the demand (e.g., an increase in the capacity of a sewer treatment plant or the construction or widening of a roadway beyond that which is needed to meet existing demand).

As discussed in Section 3.15, Utilities and Service Systems, construction of the proposed project would require new potable and recycled water, wastewater, stormwater, electricity, natural gas, and

[1] City of Redwood City. 2023 – 2031 Housing Element. Adopted February 13, 2023. Available: https://www.redwoodcity.org/home/showpublisheddocument/26396/638137962943070000.

[2] California Employment Development Department. 2022-2032 Industry Employment Projections, San Francisco-Redwood City-South San Francisco Metropolitan Division (San Francisco and San Mateo Counties). Available: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Flabormarketinfo.edd.ca.gov%2Ffile%2Findproj%2Fsanf%24IndProj.xlsx&wdOrigin=BROWSELINK.

telecommunications infrastructure and connections to the existing utility network to serve the proposed project. The increased burden on those utilities would be adequately accommodated by existing service providers, supplies, and facilities and project operation would not require new or expanded facilities or increased infrastructure capacity. As discussed in Section 3.12, Public Services, while there would be new uses established and an increase in the number of people visiting, transiting, and working at the project site and vicinity, the project site is already served by the City's Police Department and Fire Department. Further, all new development would comply with applicable fire code and emergency vehicle access requirements, and project operation would not require new or expanded facilities or increased infrastructure capacity.

Additionally, the proposed project would entail roadway and access improvements, (e.g., widening Seaport Boulevard, adding a Class I bicycle trail and Americans with Disabilities Act (ADA)-compliant sidewalk, extending the Bay Trail) to improve site access and establish new recreational facilities and utility connections. These measures would be designed to serve the project area and accommodate the increase in vehicular, bicycle, and pedestrian traffic that would be generated by the ferry service and visitor-serving uses and would not encourage or facilitate substantial population growth in the vicinity.

The establishment of a new water transit service would expand commuting options in the Bay Area, and as such, could result in a small number of commuters choosing to relocate because of new transit options. However, as discussed in **Section 5.4.1**, given the large population base within the Bay Area, any population changes as a result of expanded public transit options from the proposed project would be insignificant compared to the number of people projected to move to the City, County, and the region in general.

The ferry service and visitor-serving uses would increase the numbers of visitors coming to the area that would contribute to the regional economy through expenditures at local businesses, such as the hotel and restaurant. While the increase in spending may contribute to the expansion of existing businesses or creation of new businesses, this growth would occur in a highly urbanized area with a large and integrated economy and local workforce. Overall, the long-term effects of the proposed project would be small relative to the size of the regional economy, and they would not significantly affect population distribution in the local area and region as a whole.

As discussed under direct growth inducing impacts above, the proposed project would provide new short- and long-term job opportunities; however, given the project site's location within a well-established urban community with a large population base, challenging housing market, and established infrastructure, it would not induce population growth in the area. Since the proposed project would not involve development of housing and would not result in substantial direct increases in employment in the regional workforce, the proposed project would not have any significant effects on population growth that would tax existing facilities and require the construction of new facilities, the construction of which could have environmental effects.

Therefore, the proposed project is not expected to have any significant indirect growth-inducing impacts.

5.5 Effects Not Found to Be Significant

In accordance with Section 15128 of the CEQA Guidelines, an EIR must contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.

For the reasons explained below and in the Notice of Preparation/Initial Study for the proposed project, included as Appendix A of this Draft EIR, the proposed project would have no impact on the following resource areas and, as such, these resource areas were not addressed in detail in this Draft EIR:

- **Agriculture and Forestry Resources** – The proposed project is located within an urbanized area of the City of Redwood City. There are no agricultural operations or agricultural land located at or near the project site. Likewise, there is no forestland or timberland located at or near the project site. Therefore, construction and operation of the proposed project would not affect agriculture or forestry resources.
- **Mineral Resources** – The project site is located on land designated for port uses on artificial fill overlaying bay mud and is not available or suitable for mineral extraction. Further, Redwood City is not in an area known to contain significant mineral resources.[3,4] Because mineral, gas, and oil resources are absent from Redwood City, the proposed project would not result in the loss of a known mineral resource of value to the region or State, nor would it result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, construction and operation of the proposed project would not affect availability of mineral resources.
- **Population and Housing** – The proposed project would not result in the construction of new housing, or displacement of existing housing. While approximately 400 new long-term jobs would be created as a result of the proposed project, the new jobs would occur in a large well-established metropolitan area with a large existing labor pool, existing housing stock, and established infrastructure as discussed in greater detail in **Section 5.4**. As such, it would not induce substantial population growth directly or indirectly.
- **Wildfire** – The proposed project is not located near state responsibility areas or lands classified as very high fire hazard severity zones. Furthermore, the project site is designated as an urbanized area, has limited vegetation that could contribute to the spread of wildfire, and is not within the wildland-urban interface.

Additionally, consistent with CEQA Guidelines Sections 15063(c)(3)(A) and 1512, the following topics contained Appendix G checklist questions which are not included for discussion in this EIR due to determination in the Initial Study that these questions would result in no impacts.

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[4] City of Redwood City. October 11, 2010. Redwood City General Plan. Available: https://www.redwoodcity.org/departments/community-development-department/planning-housing/planning-services/general-plan-precise-plans/general-plan.

- **Aesthetics**
  - Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
    - The project site is not within the viewsheds of any designated or eligible state scenic highway.
- **Geology, Soils, and Paleontological Resources**
  - Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?
    - The project site is predominantly flat with no significant slopes nearby. Existing conditions do not pose a risk of unstable soils during project construction or operation.
  - Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
    - The proposed project would not involve the installation or modification of septic tanks or alternative wastewater disposal systems. The proposed project would construct new wastewater facilities that would connect to the Redwood City municipal sewer system.
- **Hazards and Hazardous Materials**
  - Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
    - There are no existing or proposed schools within 0.25 mile of the project area. Therefore, construction and operations at the project site would not emit hazardous emissions that could affect a school.
  - Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?
    - The project site is not located near State responsibility areas or lands classified as very high fire hazard severity zones; it is within an urban area with no vegetation on-site and the limited vegetation surrounding the project site would not contribute to the spread of wildfire
- **Land Use**
  - Would the project physically divide an established community?
    - The project site is located at the confluence of Redwood Creek and Westpoint Slough and is not within or surrounded by an established community. During operations, the proposed project would improve the connectivity to the project site and surrounding areas.

- **Public Services**
  - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools or other public facilities?
    - The proposed project does not include any residential uses that could increase school-age population or modify school facilities in the area, and no increased demand on schools is anticipated. Further, the proposed project would not increase population growth, thus, no increased demand on other public facilities is anticipated.

Chapter 6
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Chapter 7
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7.3 Organizations and Persons Consulted

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Water Emergency Transportation Authority

City of Redwood City

Redwood City Fire Department

Redwood City Police Department

Chapter 8
Acronyms and Abbreviations

AAC	Architectural Advisory Committee
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa Transit District
ACC	Advanced Clean Cars
ACE	Alternative Control of Emissions
ACF	Advanced Clean Fleets
ACP	Area Contingency Plan
ACT	Advanced Clean Trucks
ADA	Americans with Disabilities Act
ADWF	Average Dry Weather Flow
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AFRP	Alternative Fuel Readiness Plan
AFY	acre-feet per year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effects
APSA	Aboveground Petroleum Storage Act
AQMP	Air Quality Management Plan
AWSC	All-Way Stop-Controlled (intersection)
AWSP	Alternative Water Supply Program
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BASIS	Bay Area Spatial Information System
BAU	Business-as-Usual
BAWSCA	Bay Area Water Supply & Conservation Agency
BCDC	San Francisco Bay Conservation and Development Commission
BE	Built Environment
BERD	Built Environment Resources Directory

BES	Battery Energy Storage
BESS	Battery Energy Storage System
BGS	below ground surface
BMPs	Best Management Practices
Btu	British thermal unit
Btu/hour	British thermal units per hour
BUG	Backlight/Uplight/Glare
C/CAG	City/County Association of Governments of San Mateo County
CA	California
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator
Cal OES	California Governor's Office of Emergency Services
Cal/OSHA	California Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalEPA/OES	California Environmental Protection Agency/Office of Emergency Services
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CASQA	California Stormwater Quality Association
CBC	California Building Code
CBOMF	Central Bay Operations and Maintenance Facility
CBSC	California Building Standards Code
CCA	Community Choice Aggregation
Ccf	hundred cubic feet (natural gas billing unit)
CCR	California Code of Regulations
CDD	Community Development Department

CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEC-A15	CEC Annual Retail Fuel Outlet Report identifier
CEMEX	Cemex Construction Materials
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFM	cubic feet per meter
CFR	Code of Federal Regulations
CG	General Commercial
CGS	California Geological Survey
CH_4	methane
CHC	Commercial Harbor Craft
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Program
CIWMP	Countywide Integrated Waste Management Plan
cm	centimeter
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COA	Conditions of Approval
COMM	Commercial and Sport Fishing
COTP	Captain of the Port
CP	Commercial Park
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRRP	Community Risk Reduction Plan

CSLC	California State Lands Commission
CSSC	California Species of Special Concern
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWC	California Water Code
CZMA	Coastal Zone Management Act
DAC	Disadvantaged Community
dB	decibel
dBA	A-weighted decibel
DDT	dichlorodiphenyltrichloroethane
DDW	Division of Drinking Water
DHS	Department of Health Services
DMMO	Dredged Materials Management Office
DNL	Day-Night Average Sound Level
DOF	Department of Finance
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWQ	Division of Water Quality (State Water Resources Control Board)
DWR	California Department of Water Resources
DWSAP	Drinking Water Source Assessment and Protection
EFH	Essential Fish Habitat
EHD	San Mateo County Environmental Health Division
EIA	U.S. Energy Information Administration
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPCA	Energy Policy and Conservation Act
EPCRA	Emergency Planning and Community Right-To-Know Act
EQ Zapp	Earthquake Hazards Zone Application
ERF	Effective Response Force
ESA	Environmental Site Assessment

EST	Estuarine Habitat
EV	Electric Vehicle
EVCS	Electric Vehicle Charging Station
EVs	Electric Vehicles
ExCo	Extinction Coefficient
F	Fahrenheit
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMP	Fishery Management Plan
FSA	Federal Staging Area
FTA	Federal Transit Administration
FTE	full-time employees
FY	Fiscal Year
gal	gallon
GHG	greenhouse gas
GI	General Industrial
GIS	Geographic Information Systems
GW	gigawatt
GWh	gigawatt-hour
GWP	Global Warming Potential
H_2S	hydrogen sulfide
HARP	Hotspots Analysis and Reporting Program
HDM	Highway Design Manual
HFCs	hydrofluorocarbons
HHWE	Household Hazardous Waste Element
HMBP	Hazardous Materials Business Plan
HMIS	Hazardous Materials Inventory Statement
HMMP	Hazardous Materials Management Plan
HOV	High-Occupancy Vehicle
HRA	Health Risk Assessment

HVAC	Heating, Ventilation, and Air Conditioning
Hz	hertz
IBA	Inflatable Buoyant Apparatus
IBC	International Building Code
IND	Industrial Service Supply
IOP	Implementation and Operations Plan
IP	Industrial Park
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
ISG	Individual Supply Guarantee
ITE	Institute of Transportation Engineers
IWMP	Integrated Waste Management Plan
JA11	Joint Appendix JA11 (energy code appendix)
JPA	Joint Powers Authority
kBTU	kilo (thousand) British thermal units
kg	kilogram
kW	kilowatt
kWh	kilowatt-hour
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
LCI	Governor's Office of Land Use and Climate Innovation (formerly OPR)
L_{dn}	day/night average sound level
L_{eq}	equivalent continuous sound level
LHMP	Local Hazard Mitigation Plan
LI	Light Industrial
LID	Low Impact Development
L_{max}	maximum A-weighted noise level
L_{min}	minimum A-weighted noise level
LOMR-F	Letter of Map Revision-Fill
LOS	Level of Service
LSAA	Lake and Streambed Alteration Agreement
LSE	Load-Serving Entity

LT	long-term
LTMS	Long Term Management Strategy
LUST	Leaking Underground Storage Tank
LZ	Lighting Zone
M	Marina
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
Mcf	thousand cubic feet
MEP	Marine Environmental Protection
MGD	million gallons per day
MIGR	Fish Migration
MIR	Maximally Impacted Receptor
MLLW	mean lower low water
MM	Mitigation Measure
MMPA	Marine Mammal Protection Act
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MOU	Memorandum of Understanding
MPG	miles per gallon
MPO	Metropolitan Planning Organization
MRP	Municipal Regional Permit
MRP 3	Municipal Regional Stormwater Permit
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
MSS	Marine Safety and Security
MT	metric tons
MT CO_2e	metric tons of Carbon Dioxide Equivalent
MTC	Metropolitan Transportation Commission
MUTCD	Manual on Uniform Traffic Control Devices
MW	megawatt
MWELO	Model Water Efficient Landscape Ordinance
MWh	megawatt-hour
MXD Tool	Mixed-Use Trip Generation Model
N/A	Not Applicable

N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NAV	Navigation
NAVD	North American Vertical Datum
NBOMF	North Bay Operations and Maintenance Facility
NDFE	Non-Disposal Facility Element
NEHRP	National Earthquake Hazards Reduction Program
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NLAA	Not Likely to Adversely Affect
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NOP/IS	Notice of Preparation/Initial Study
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
NPL	National Priorities List
NR	Natural Resources
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTU	Nephelometric Turbidity Units
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
O	Commercial Office Professional/Technology
O&M	Operations and Maintenance
O_3	ozone

OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OFFROAD2021	Off-road equipment emissions model (2021)
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OPA	Oil Pollution Act of 1990
OPR	Governor's Office of Planning and Research (now LCI)
OS	Open Space
OSHA	Occupational Safety and Health Administration
OSPR	Office of Spill Prevention and Response
OS SF	Open Space – San Francisco Bay
PAH	polycyclic aromatic hydrocarbons
Pb	lead
PCBs	polychlorinated biphenyls
PCE	Peninsula Clean Energy
PDA	Priority Development Area
PFCs	perfluorocarbons
PG&E	Pacific Gas & Electric
PM	particulate matter
PM_{10}	coarse inhalable particulate matter (10 microns or smaller)
$PM_{2.5}$	fine inhalable particulate matter (2.5 microns or smaller)
PMP	Paleontological Mitigation Plan
Port	Port of Redwood City
PPA	Priority Production Area
ppb	parts per billion
ppm	parts per million
PPOR	Potential Place of Refuge
PPV	Peak Particle Velocity
PRC	California Public Resources Code
PRC	Public Resources Code
PS	Public Safety
PSI	pounds per square inch
PUA	Priority Use Area
PV	photovoltaic

PVC	polyvinyl chloride
PWWF	Peak Wet Weather Flow
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RA	Resource Adequacy
RARE	Preservation of Rare and Endangered
RCRA	Resource Conservation and Recovery Act
REC	Recreation
RECON	RECON Environmental Corp
RECP	Regional Emergency Coordination Plan
REEF	Rapid Electric Emission-Free Ferry Program
REOC	Regional Emergency Operations Center
RESCU	Regional Environmental Sewer Conveyance Upgrade
RMC	RMC Pacific Materials
RMP	Risk Management Plan
RMS	root mean square
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RSL	Regional Screening Level
RTAC	Regional Transportation Advisory Committee
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWC	Redwood City
RWQCB	Regional Water Quality Control Board
RWQCB	San Francisco Bay Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SAFER	Strategy to Advance Flood Protection, Ecosystems and Recreation
SamTrans	San Mateo County Transportation Authority
SAP	Sampling and Analysis Plan
SAR	Sampling and Analysis Report
SB	Senate Bill
SBSA	South Bayside System Authority
SBTS	South Bayside Transfer Station
SCS	Sustainable Communities Strategy

SDR	Standard Development Requirements
SDWA	Safe Drinking Water Act
SEL	sound exposure level
SERC	State Emergency Response Commission
SF	San Francisco
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFBF	San Francisco Bay Ferry
SFCJPA	San Francisquito Creek Joint Powers Authority
SF-DODS	San Francisco Deep Ocean Disposal Site
SFEI	San Francisco Estuary Institute
SFPUC	San Francisco Public Utilities Commission
SF-VMAP	San Francisco Vessel Mutual Assistance Plan
SGMA	Sustainable Groundwater Management Act
SHELL	Shellfish Harvesting
SHS	State Highway System
SIP	State Implementation Plan
SLC	State Lands Commission
SMARTS	Stormwater Multiple Application and Report Tracking System
SMC	San Mateo County
SMCTA	San Mateo County Transportation Authority
SMCWPPP	San Mateo Countywide Water Pollution Prevention Program
SMDCP	Stormwater Management and Discharge Control Program
SO_2	sulfur dioxide
SO_4	sulfates
SOC	State Operations Center
SOC/CRA	Standards of Cover Study and Community Risk Assessment
SO_X	sulfur oxides
SPAC	Seaport Planning Advisory Committee
SPAWN	Fish Spawning
SR	State Route
SRRE	Source Reduction and Recycling Element
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow

ST	short-term
SVCW	Silicon Valley Clean Water
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAC	Transportation Analysis under CEQA
TAF	Transportation Analysis Framework
TAM	Transportation Analysis Manual
TAZ	Transportation Analysis Zone
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TCR	Tribal Cultural Resource
TDM	Transportation Demand Management
TDM	Travel Demand Model
TDMt	Transportation Demand Management Program
TIP	Transportation Improvement Program
TMC	turning movement count
TMDL	Total Maximum Daily Load
TNC	Transportation Network Company
TOC	Transit-Oriented Communities
TP	Tidal Plain
TRA	Transit-Rich Area
TRI	Toxic Release Inventory
TSB	Total System Benefit
UBC	Uniform Building Code
µg/m³	micrograms per cubic meter
US	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
UWMP	Urban Water Management Plan

VdB	vibration decibels
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
VTS	Vessel Traffic Service
WDR	Waste Discharge Requirement
WETA	Water Emergency Transportation Authority
WILD	Wildlife Habitat
Wkdy.	Weekday
Wknd.	Weekend
WOTUS	Waters of the United States
WQ	Water Quality
WQLS	Water Quality-Limited Segments
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan
WSIP	Water System Improvement Program
WTA	Water Transit Authority
ZE	Zero Emission
ZEV	Zero-Emission Vessels

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