

SUNNYVALE WATER POLLUTION CONTROL PLANT MASTER PLAN - CLEANWATER CENTER PROJECT

Addendum to the Program Environmental Impact Report

Prepared for
City of Sunnyvale

March 2026



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TABLE OF CONTENTS

Sunnyvale Water Pollution Control Plant Master Plan – Cleanwater Center

| | <u>Page</u> |
|---|-------------|
| Chapter 1. Background and Purpose of the Addendum..... | 1-1 |
| 1.1 Background | 1-1 |
| 1.2 Purpose of This Addendum | 1-4 |
| Chapter 2. Project Description..... | 2-1 |
| 2.1 Summary of Approved Project..... | 2-1 |
| 2.2 Components of the Cleanwater Center Project | 2-1 |
| 2.3 Construction | 2-6 |
| 2.4 Operations | 2-9 |
| 2.5 Required Actions and Approvals | 2-10 |
| Chapter 3. Evaluation of Environmental Impacts..... | 3-1 |
| 3.1 Transportation | 3-4 |
| 3.2 Air Quality | 3-8 |
| 3.3 Greenhouse Gas Emissions | 3-17 |
| 3.4 Hydrology and Water Quality..... | 3-25 |
| 3.5 References | 3-29 |
| Chapter 4. Conclusion | 4-1 |
| Chapter 5. Mitigation Monitoring and Reporting Program – Cleanwater Center | 5-1 |
| Appendices | |
| A. Air Quality Supporting Information | A-1 |
| List of Figures | |
| Figure 1 Site Location Map..... | 1-2 |
| Figure 2 Sunnyvale Water Pollution Control Plant Area Map | 1-3 |
| Figure 3 Existing WPCP Process Areas | 2-2 |
| Figure 4 Project Site | 2-3 |
| Figure 5 Site Plan | 2-4 |

| | <u>Page</u> |
|---|-------------|
| List of Tables | |
| Table 2-1 Summary of Cleanwater Center Project | 2-5 |
| Table 2-2 Construction Schedule..... | 2-7 |
| Table 3.2-1 Air District Air Quality Significance Thresholds..... | 3-10 |
| Table 3.2-2 Average Daily Construction-Related Pollutant Emissions for the Project (pounds/day)..... | 3-13 |
| Table 3.2-3 Project Operational Pollutant Emissions..... | 3-15 |
| Table 3.3-1 Total Estimated GHG Emissions from Construction | 3-20 |
| Table 3.3-2 Annual GHG Emissions from Project Operation | 3-21 |
| Table 3.4-1 Select Revised Numeric Effluent Limitations for the WPCP | 3-26 |
| Table 5-1 Mitigation Monitoring and Reporting Program – Cleanwater Center Project | 5-3 |
| Table 5-2 Adopted Mitigation Measures that Do Not Apply to the Project | 5-11 |

CHAPTER 1

Background and Purpose of the Addendum

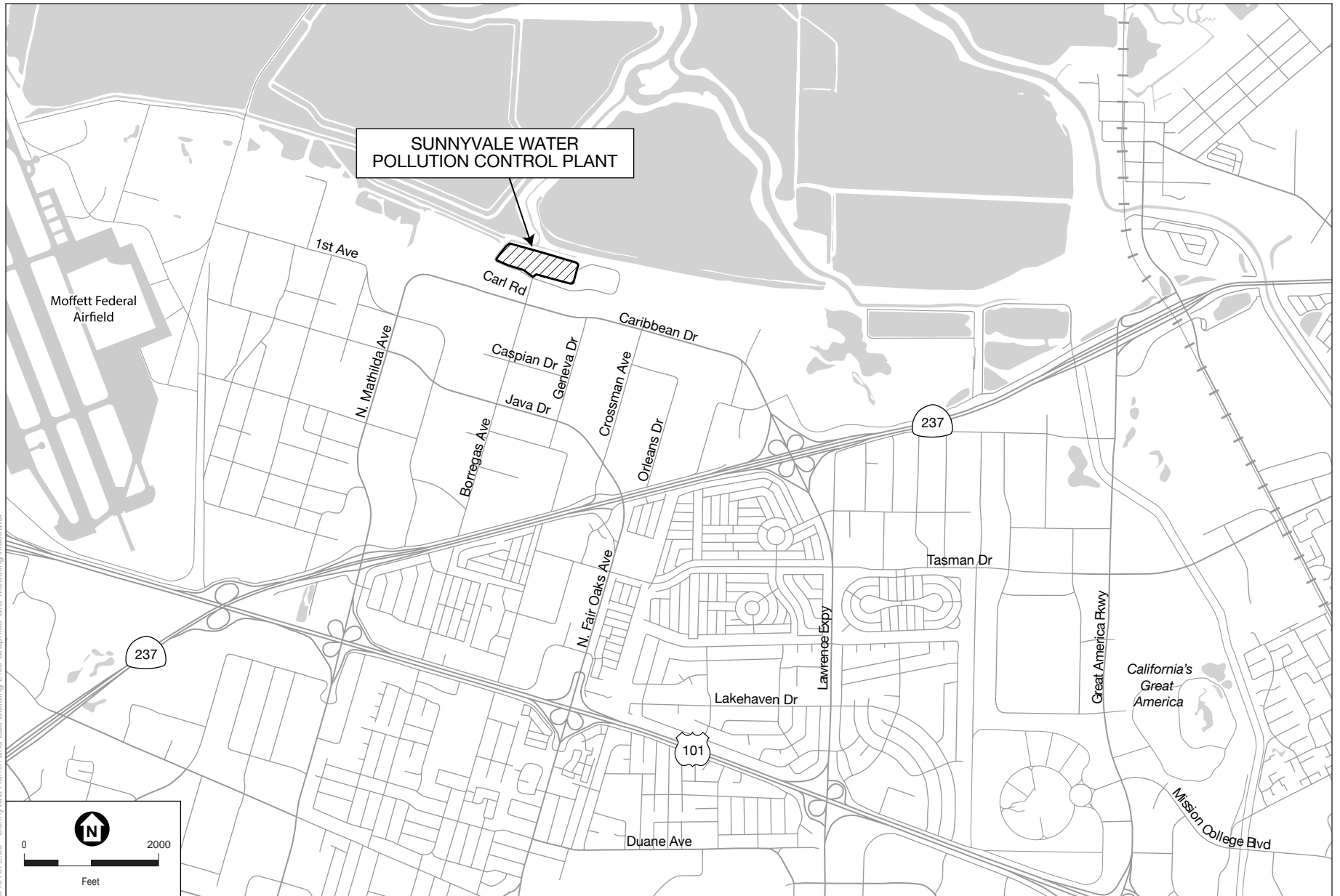
1.1 Background

The City of Sunnyvale (City) owns and operates the Donald M. Somers Water Pollution Control Plant (WPCP), located at 1444 Borregas Avenue in Sunnyvale, Santa Clara County (see **Figure 1**). The WPCP provides treatment of wastewater flows and loads from domestic, commercial, and industrial sources in Sunnyvale, Rancho Rinconada, and Moffett Field. The WPCP includes an approximately 16.6-acre main plant and two oxidation ponds¹ that occupy about 436 acres in total (see **Figure 2**). The WPCP was originally constructed in 1956. With the enactment of the Clean Water Act in 1972, more restrictive water quality standards were established, leading to expansion of and process upgrades to the WPCP. Currently, the WPCP processes about 13.5 million gallons per day (mgd) on an annual basis. The surrounding dry land area is primarily used for industrial and recreation purposes: the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station) and the former Household Hazardous Waste Drop-off Site (Recycle Yard) on Carl Road abut the main plant to the east and south, respectively; the closed Sunnyvale Landfill (traversed by numerous trails) borders these facilities. The Sunnyvale West Channel forms the main plant's western boundary; the Sunnyvale East Channel borders the landfill further east. Caribbean Drive runs east-west along the southern edge of the Sunnyvale Landfill. The San Francisco Bay Trail borders the WPCP to the west and north.

The City was the lead agency for the Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report (PEIR) (State Clearinghouse No. 2015062037).² The City adopted the PEIR for the WPCP Master Plan and approved implementation of the WPCP Master Plan on August 23, 2016. The PEIR evaluated potential environmental impacts that could occur as a result of implementing the Master Plan and provided applicable mitigation to reduce the intensity of potential environmental impacts. As part of Master Plan approval, the City adopted a Mitigation Monitoring and Reporting Program.

¹ The oxidation ponds provide biological oxidation of soluble organic material and physical removal of suspended solids that remain in the wastewater after primary clarification. The ponds also play an important role in the conversion of ammonia to nitrate for 2-3 months during the summer. Their large storage capacity provides a means for equalizing the flow of wastewater to the downstream unit processes, and for storing water to allow reduced (or zero) flow rate to the downstream processes for maintenance or other purposes.

² City of Sunnyvale, Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report, adopted August 23, 2016. The PEIR can be accessed online at <http://www.sunnyvalecleanwater.com/program-environmental-impact-report>.



SOURCE: Thomas Brothers; ESA

Sunnyvale WPCP Cleanwater Center

Figure 1
Site Location Map





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SOURCE: H.T. Harvey & Associates; adapted by ESA

Sunnyvale WPCP Cleanwater Center

Figure 2
Sunnyvale Water Pollution Control Plant Area Map



Subsequent to adoption of the PEIR, projects included in the Master Plan have undergone further development. Chapter 2 of this document presents a description of the Cleanwater Center project (project), which in the PEIR was called the Administration and Laboratory Building project. Chapter 3 presents an evaluation of the environmental impacts of the project as currently developed in comparison to the impacts disclosed in the PEIR. Chapter 4 summarizes the findings of the evaluation presented in Chapter 3. Chapter 5 contains mitigation measures from the approved Master Plan Mitigation Monitoring and Reporting Program.

1.2 Purpose of This Addendum

Under the CEQA Guidelines (Sections 15162 and 15164), a lead agency may prepare an addendum to a previously certified EIR if some changes or additions to the environmental evaluation are necessary, but none of the following occurs:

1. Substantial changes are proposed in the project which will require major revisions to the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the EIR;
 - b. Significant effects previously examined will be substantially more severe than shown;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum documents that the Cleanwater Center project as modified subsequent to the Master Plan does not trigger any of the conditions described above.

CHAPTER 2

Project Description

2.1 Summary of Approved Project

As part of the Master Plan process the City identified the need to replace the existing administrative and support buildings throughout the site to consolidate administration, outreach, operations, laboratory, and compliance inspection functions under one roof. The Master Plan proposed a two-story, 21,600 square foot structure on the south side of Carl Road to serve as the new Administration and Laboratory building. A reconfigured parking area south of the existing administration building along Carl Road would have supported employee and visitor parking. The Administration and Laboratory Building would have been implemented following relocation of public access to the Bay Trail system from Carl Road to Caribbean Drive. The Master Plan identified a shallow spread foundation for the new Administration and Laboratory Building. These facilities as originally proposed were described starting on Draft PEIR page 3-28. **Figure 3** shows the existing Administration Building and other process facilities.

2.2 Components of the Cleanwater Center Project

Following certification of the Master Plan PEIR and approval of the Master Plan, the City proceeded with design of the Administration and Laboratory Building. However, due to technical, regulatory, and cost uncertainties associated with construction on the unclosed portion of the landfill, the City made the decision to evaluate alternative locations for the Administration and Laboratory Building. Based on this evaluation, the Administration and Laboratory Building was moved off of the Recycle Yard, the proposed building complex was expanded to include the Maintenance Building, and name was changed to "Cleanwater Center project" (the project). The further refinements of the Cleanwater Center, which would primarily be constructed within the main plant fenceline, and parking and paving improvements, which would be primarily outside of the main plant fenceline, are summarized in **Table 2-1**. **Figure 4** illustrates the project site boundaries and the main plant fenceline. Proposed facilities are shown on **Figure 5**. The approximately 128,700 square foot (3 acre) site encompasses the former hazardous household waste drop-off site (also called the Recycle Yard), Carl Road, the existing parking areas along Carl Road, and a portion of the main plant site (in the vicinity of the existing Administration Building). Refer to Section 2.4 for a discussion of project operations.



SOURCE: ESA; Base Map Google Earth

Sunnyvale WPCP Cleanwater Center

Figure 3
Existing WPCP Process Areas

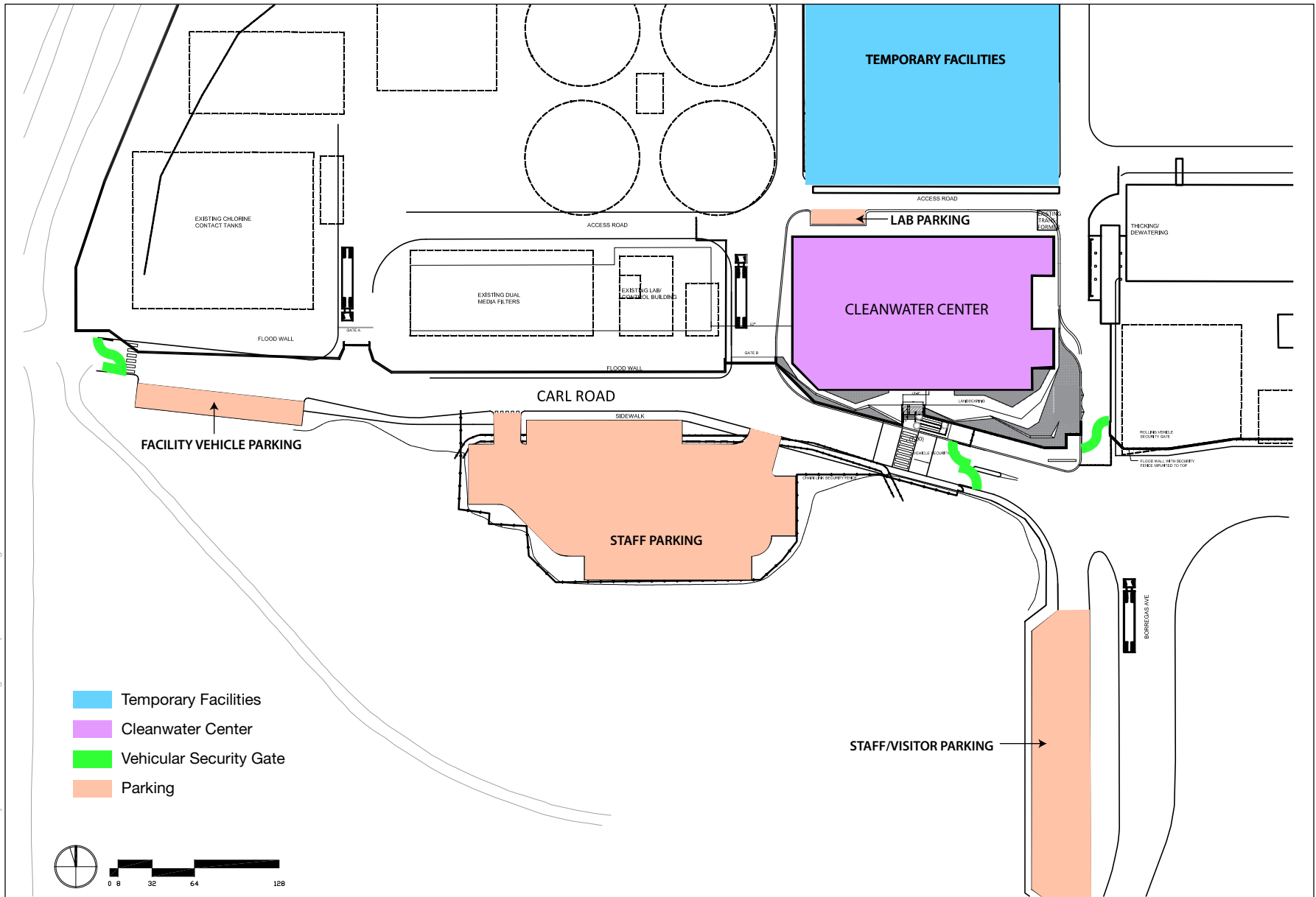


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SOURCE: MWA Architects; Google Earth, 2025

Sunnyvale WPCP Cleanwater Center

Figure 4
Project Site



D:\191072.00 - Sunnyvale Admin and Lab Building 2015 Graphics-GIS-Modeling\Illustrator

SOURCE: MWA Architects

Sunnyvale WPCP Cleanwater Center

Figure 5
Site Plan



**TABLE 2-1
SUMMARY OF CLEANWATER CENTER PROJECT**

| Project component | Master Plan Facilities Evaluated in PEIR | Proposed Facilities |
|--|--|---|
| Cleanwater Center (formerly Administrative Building) | <ul style="list-style-type: none"> • Two stories, 40 feet above grade • 21,600 square feet • 49 workspaces • At former Recycle Yard (south of Carl Road) | <ul style="list-style-type: none"> • Two stories, approximately 38 feet above proposed finished grade • Approximately 19,900 square-foot footprint (30,830 square feet for entire building, including maintenance function) • 75 workspaces • In the location of the existing Administration Building |
| Parking and Paving Improvements | <ul style="list-style-type: none"> • South of existing Administration Building | <ul style="list-style-type: none"> • At former Recycle Yard |

Cleanwater Center

The Cleanwater Center would provide a centralized workplace for WPCP administration, laboratory, operations, and maintenance staff. The new Cleanwater Center, located on the north side of Carl Road, would replace the functionality of the existing Administration Building, Laboratory/Control Building, Operator/Maintenance Building, and Compliance Inspection Building. The Cleanwater Center would include a water quality lab, administrative office and support space, a public outreach room, day/training room, shower and locker facilities, plant control room, operation shop, maintenance shop, and storage. This new consolidated facility would maintain public parking for plant visitors while providing dedicated access to the WPCP for staff and delivery vehicles. All public and staff spaces would be designed to comply with Americans with Disabilities Act (ADA) Standards for Accessible Design and California Building Code Section 1009.

The tallest point of the two-story, 30,830 square-foot building would be a maximum of approximately 38 feet above the proposed finished grade. The ground floor would house the public areas, laboratory and laboratory offices, shared support spaces, and operation shop spaces. Administrative offices, the operations Control Room, and shared Day Room/Training and kitchen would be on the second floor. The Cleanwater Center would occupy an approximately 19,900 square foot ground footprint, including the maintenance function, and provide 75 workspaces. The area south of the Cleanwater Center surrounding the front entrance would include a minimum of approximately 3,080 square feet of landscaping.

Storm drains and sewer pipelines from the Cleanwater Center and parking lot would connect to existing stormwater and sewer pipelines at the site that connect to the headworks facility at the WPCP.

Parking and Paving Improvements

The project includes new parking areas and driveways, as shown on Figure 5. The new parking lot within the current Recycle Yard area would be repaved and painted to provide approximately 80 staff parking spaces. Facility vehicle parking would be provided along Carl Road and next to the

Cleanwater Center, lab parking would be provided north of the Cleanwater Center along Access Road and visitor parking would be available in the existing parking area on the western side of Borregas Avenue, south of Carl Road. Electric vehicle charging stations would be installed as part of the Project.

The project would also include concrete sidewalk and curbing. The pedestrian access routes in the proposed site layout were designed to provide safe, accessible, and convenient access for staff and visitors. Pedestrian paths would be separated from vehicle traffic by a curb or demarked with standard crossing paint. The primary staff and visitor crosswalk would cross Carl Road near the primary security gate and would be a tabletop style crossing to slow vehicle speeds and allow pedestrians to cross with minimal grade change. The route would cross through the perimeter wall and into the landscaped area in front of the Cleanwater Center. Stairs and an Americans with Disabilities Act compliant ramp would connect the Carl Road grade to the Cleanwater Center entry plaza.

Fencing and Security

The public facing edges of the WPCP would have climb and cut resistant material while providing a non-institutional look. The remainder of the fence line would be an 8-foot-high galvanized chain-link with 12-inch-high, vertically mounted, barbed-wire top rigger. All fences would be with a bottom rail and without a top rail. The project would include replacement of the existing chain-link fencing around the Recycle Yard.

The project maintains primary plant access along Carl Road and would introduce a new motorized primary plant entrance gate, providing a single access control point for all staff and visitors to the WPCP. A motorized gate would also be installed at the west end of Carl Road to provide private access to the ponds and Bay Trail. A pedestrian access gate with access control would be provided on the sidewalk adjacent to the vehicle gate. Private access to the San Francisco Bay Trail would be provided through a new vehicle and man gate on the western side of the WPCP. Refer to Figure 5 for the location of gates proposed as part of the project.

2.3 Construction

Schedule and Workforce

Construction of the Cleanwater Center and parking improvements would occur over approximately 26 months, beginning in early 2027 and ending in early 2029. The parking lot, side, and perimeter roadway paving, as well as installation of fencing would occur over approximately three (3) months in 2028.

At peak construction, up to ten (10) construction personnel may be onsite each day.¹ Project construction would occur within normal City working hours, weekdays between the hours of

¹ Estimated using CalEEMod method which assumes 0.32 workers per 1,000 square feet of building construction; refer to **Appendix A**.

7:00 a.m. and 6:00 p.m., and, as approved on an “exception basis”, Saturdays between 8:00 a.m. and 5:00 p.m.²

**TABLE 2-2
CONSTRUCTION SCHEDULE**

| Construction Phase | Estimated Start | Estimated End |
|--|------------------------|----------------------|
| Mobilization, Demolition, Clear and Grub | January 2027 | March 2027 |
| Excavation, Foundation | April 2027 | November 2027 |
| Construct Cleanwater Center | November 2027 | March 2029 |
| Landscaping, Utility Connections, Paving and Fencing | May 2028 | September 2028 |

NOTE: Carl Road paving, parking, and installation of fencing may occur after construction of other projects are completed at the WPCP.

Truck Trips and Equipment

A maximum of 60 one-way truck trips per day would occur due to project construction, associated with exporting excavated waste and soil, importing fill, excavation and grading, and concrete placement activities.

Heavy equipment that would be used for construction of this project includes the following:

- Excavator
- Grader
- Haul trucks
- Dozer/Loader
- Roller
- Forklift
- Concrete trucks
- Water trucks
- Crawler cranes and rough terrain cranes
- Paving equipment
- Drill rigs
- Pickup Trucks

The construction contractor would determine the required temporary construction power requirements. Unless temporary power from the WPCP is provided as part of make-ready site work, a generator would likely be required.

Water would be used during construction for activities such as dust suppression and compaction of soil. The volumes of water needed during construction would depend on the construction contractor’s means and methods, as well as the weather each day that certain construction activities are taking place.

Access and Staging

Construction vehicles would access the project site using Borregas Avenue and Carl Road. Construction staging and parking would occur within the approximately 23,000 square foot Recycle Yard (future parking lot) on Carl Road within the project site (refer to Figure 4). Staging would also occur within the main plant north of the terminus of Borregas Avenue.

² Sunnyvale Municipal Code Section 16.08.030 normally limits construction activity to these hours.

Construction Activities

Mobilization, Demolition, and Site Clearing

Over approximately three weeks in January 2027, the City and/or its contractor would mobilize construction equipment and trailers to the project site, demolish remaining structures (the Recycle Yard shed and existing administration building), and clear the site of vegetation. A total of 10 trees between the Recycle Yard and Carl Road would be removed as part of project construction. All trees to be removed are “protected trees” under the City of Sunnyvale Municipal Code’s tree ordinance.

Three temporary facilities, consisting of an Office Modular Building, a Locker/Shower Modular Facility, and a Relocated Instrumentation Trailer, would be installed north of the proposed Cleanwater Center in the area of the former primary sedimentation tanks, which have been demolished, for WPCP staff use during construction. The temporary facilities would not require excavation and would be removed once construction is complete.

Excavation and Foundation

The Cleanwater Center foundation would consist of a concrete slab over cement deep soil mixing (CDSM) piles. The CDSM piles would be installed to a depth of 25 feet below ground surface. Excavation of the Cleanwater Center footprint would generate approximately 2,300 cubic yards of material of which approximately 1,500 would be reused onsite and the rest hauled offsite. Levels of contamination in excavated material would be characterized, and the material would be disposed of offsite in accordance with regulatory requirements. Non-hazardous waste would generally be disposed of at Kirby Canyon Landfill, while hazardous waste would be sent to an appropriate disposal site. Local dewatering would only be necessary if the concrete slab foundation of the Cleanwater Center is to extend below the shallow groundwater level. Dewatered groundwater would be routed towards the WPCP storm drain system, which is then routed to the preliminary treatment facilities. Construction activities are not expected to result in substantial changes to discharge from or operation of the WPCP.

Construct Cleanwater Center

Once foundations are installed, the City would construct the Cleanwater Center over approximately 17 months. The existing Recycle Yard would be used for equipment staging.

Landscaping, Utility Connections, Paving and Fencing

After the Cleanwater Center is complete, the City would install utility connections, sidewalks, and pave and stripe parking areas along Carl Road and adjacent to the Cleanwater Center. New sidewalks would be completed along Carl Road, and landscaping installed near the Cleanwater Center. Approximately 220 cubic yards of asphalt and other material would be demolished around the Cleanwater Center.

Carl Road and the Recycle Yard would be repaved after completion of the Cleanwater Center in 2029. Approximately 340 cubic yards of material (existing pavement) would be excavated prior to repaving Carl Road. The closed Sunnyvale Landfill surrounds the main plant on the landward side (west, south, and beyond the SMaRT Station to the east). The proposed parking lot (within the existing Recycle Yard) is within the boundary of the historic landfill, based on identification of waste extending beyond the landfill closure boundary. As part of a geotechnical study for the Master Plan, several borings were advanced at the Recycle Yard. These borings encountered a layer of landfill refuse consisting of domestic waste, wood, glass, organic materials, concrete, and paper mixed with clay, starting at a depth of approximately 2.5 to 3 feet below ground surface. The fill layer is about 9 to 14 feet thick.³

The existing grades of the Recycle Yard would be maintained to comply with local enforcement agency development restrictions for an unclosed landfill. Under these restrictions, improvements will be limited to removing the existing paving, repaving the area, and replacing fencing around the area. New electrical conduits, electric vehicle charging station foundations, and street light foundations would also be installed within this area. Excavation to remove existing pavement would be approximately 6 inches deep. Trenching or excavation to 4 feet below ground surface would be required to install electrical conduits and foundations for electrical equipment, streetlights, and gates. Approximately 400 cubic yards of material would be excavated during the removal of existing pavement at the Recycle Yard. Before paving the parking lot at the existing Recycle Yard, the existing storage shed and other materials onsite would be removed.

The City's Environmental Services Division is responsible for landfill-related compliance. Pursuant to California Code Regulations (CCR) Title 27, Division 2, Section 21769, the City may prepare an update to the postclosure maintenance plan that describes these proposed postclosure land uses. Updating the plan would eliminate a potential inconsistency with the landfill's existing postclosure maintenance plan and would ensure that construction and operation of the Cleanwater Center and associated parking and roadway improvements would be consistent with requirements of CCR Title 27 regarding, for example, postclosure use provisions.

2.4 Operations

As described in PEIR Section 3.4.3, page 3-16, the project would consolidate administration, outreach, operations, laboratory, maintenance, and compliance inspection functions under one roof. No new staff would be needed to operate the new facilities and the frequency of deliveries to the WPCP would not change. The Cleanwater Center would provide approximately 75 workspaces to allow for existing staff working in other locations (i.e., offsite of the WPCP) to relocate offices and work at the Cleanwater Center. Workspaces at the Cleanwater Center would also be available for the addition of staff if needed in the future. Currently approximately 34 personnel work at the WPCP.

³ Fugro, 2015. Geotechnical Study Master Plan and Facilities Upgrade Project, WPCP, Sunnyvale, California. September 2015.

The new facilities in this project would increase the power demands at the WPCP. Primary power for the Cleanwater Center would be supplied by the Power Generator Facility at the WPCP as well as Pacific Gas & Electric (PG&E) and Silicon Valley Clean Energy (SVCE). All the electrical demand for the facilities proposed in this project would be met by power produced at the Power Generator Facility at the WPCP and by increased PG&E and SVCE supply. The Cleanwater Center would include light-emitting diode (LED) interior and exterior lighting. There would be no change in WPCP operational truck trips due to implementation of the project.

Stormwater runoff from new impervious surfaces at the Cleanwater Center, Recycle Yard, and along Carl Road would be routed to the WPCP storm drain system, which is then routed to the preliminary treatment facilities.

2.5 Required Actions and Approvals

The following actions and approvals may be required in the future by agencies with discretionary authority over specific aspects of the proposed project:

- San Francisco Bay Conservation and Development Commission
 - Review of project activities within the 100-foot shoreline band
- Santa Clara County Department of Environmental Health⁴
 - Review and approval of postclosure land use for structures on or within 1,000 feet of the Sunnyvale Landfill

⁴ 27CCR, Division 2, Section 21190, regulates land uses on and near closed landfills. Postclosure land uses must be designed and maintained to protect public health and prevent damage to the closed landfill's monitoring and control systems. Section 21190(c) requires that all proposed postclosure land uses, other than non-irrigated open space, be submitted to the Local Enforcement Agency (the Santa Clara County Department of Environmental Health), Regional Water Quality Control Board, local air district and local land use agency and that the LEA must review and approve proposed postclosure land uses if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste.

CHAPTER 3

Evaluation of Environmental Impacts

The evaluations in the Program Environmental Impact Report (PEIR) were revisited to determine whether any changes to the analyses were warranted based on refinements to the Cleanwater Center project (the project). This chapter describes any changes that have occurred in the existing environmental conditions within and near the project area as well as environmental impacts associated with the project. The analysis includes consideration of the mitigation measures adopted for the Master Plan as part of the Mitigation Monitoring and Reporting Program (MMRP). Chapter 5, *Mitigation Monitoring and Reporting Program*, contains the mitigation measures from the adopted MMRP that apply to the project.

The PEIR evaluated impacts of combinations of individual improvements as they were expected to progress at the time of PEIR preparation. The phasing for the Master Plan improvements has changed as design progressed for individual improvements. Project construction is expected to coincide with construction of the Secondary Treatment and Dewatering Facilities and Existing WPCP Rehabilitation projects at the WPCP. Project construction may also coincide with the SCVWD East-West Channels Flood Protection Project (which would provide flood protection to homes, businesses, schools, and highways to avoid transportation shutdowns and prevent potential damages). Where relevant, cumulative impacts of this scenario are discussed.

The topics listed below were sufficiently addressed in the PEIR and required no additional analysis because either the nature, scale, and timing of the project has not changed in ways relevant to the topic or there has not been a substantial change in the circumstances involving the topic on the project site, nor in the local environment surrounding the site.

- **Aesthetics.** The land use and zoning designations have not changed for the site and surroundings and no new state- or locally-designated scenic vistas or state scenic highways have been established in the project vicinity since approval of the Master Plan. The WPCP has an industrial character and is in an urbanized area zoned as P-F (Public Facilities) and M-3 (General Industrial) (City of Sunnyvale, 2020a). The Cleanwater Center would be approximately 38 feet tall, instead of 40 feet as evaluated in the PEIR, and would be located within the main plant instead of at the Recycle Yard. The Recycle Yard would be used for parking. These uses would be consistent with the P-F and M-3 zoning designations of the area and the building height would be similar to other buildings at the WPCP. The project would install the same lighting as described in the PEIR.
- **Agriculture and Forestry Resources.** The state and local land use and zoning designations with respect to agricultural and forest resources have not changed for the site and surroundings, and agricultural or forest use of the site has not commenced since adoption of the PEIR. Thus, there has not been a substantial change in the circumstances involving agricultural and forest resources at the site or surrounding areas.

- **Biological Resources.** Habitat in the project area has not changed since adoption of the PEIR. The locations of ground disturbance have not changed in ways relevant to biological resources. The state and local plan designations relevant to biological resources within and surrounding the project site have not changed. As indicated in the Master Plan, because this project is a City project, it is possible that no Tree Removal Permit or mitigation is necessary. However, if the City determines that mitigation is required, the City would implement adopted Mitigation Measures BIO-4a (Avoidance and Preservation of Trees) and BIO-4b (Master Plan Compensation for Impacts on Protected Trees). Applicable mitigation measures are included in Chapter 5.
- **Cultural Resources.** The locations of ground disturbance have not changed in ways relevant to historical, archeological, and paleontological resources at the site or surrounding areas. Applicable mitigation measures are included in Chapter 5.
- **Energy Conservation.** The construction and operation equipment and activities proposed for the project would be similar to those evaluated in the PEIR. The increased electrical demand from PG&E and SVCE for this project is within the demand estimated for Master Plan projects in the PEIR (3,100 kilowatts). The Caribbean Drive Parking and Trail Access Enhancements Project and the Secondary Treatment and Dewatering Project are the only other Master Plan projects evaluated in the PEIR that have undergone subsequent review under the California Environmental Quality Act (CEQA). While the Caribbean Drive Parking and Trail Access Enhancements Project would not require power, the total estimated demand of the Secondary Treatment and Dewatering Project is approximately 1,000 kilowatts.
- **Geology, Soils, Seismicity, and Mineral Resources.** The nature, scale, and timing of the project have not changed in a manner that would exacerbate existing geologic and seismic hazards at the project site. The state and local land use and zoning designations with respect to mineral resources have not changed for the site and surroundings.
- **Hazards and Hazardous Materials.** The ground underlying the location proposed in the PEIR for the Cleanwater Center was determined to contain residual landfill waste starting at depths of 2.5 to 3 feet below ground surface. The location of the Cleanwater Center was subsequently moved to the current proposed location, under which no landfill waste is present; however, shallow excavation for electrical conduits, electric vehicle charging station foundations, and street light foundations would be completed in areas of unclosed landfill. The PEIR evaluated excavation activities within the Recycle Yard and found that, with implementation of applicable mitigation measures, impacts would be less than significant. This project change would not result in any new or more severe significant environmental effects than those disclosed in the PEIR. Applicable mitigation measures are included in Chapter 5.
- **Land Use and Recreation.** The state and local land use plans, policies, and regulations applicable at the site have not changed since adoption of the PEIR, and the character of the project would remain industrial.
- **Noise and Vibration.** As described in Chapter 2, the project would not involve construction activity outside of the hours of 7:00 a.m. to 6:00 p.m. The nearest residences to the project site are approximately 0.8 miles away and separated from the area by the intervening commercial and industrial land uses and State Route 237. No new receptors closer than those identified in the PEIR occur in the vicinity of the project site. The types of equipment and number of construction activities occurring concurrently would be similar to those evaluated in the PEIR for other Master Plan projects. The project does not include sources of noise during operations that were not evaluated in the PEIR.

- **Population and Housing.** The project does not alter the effect of the Master Plan on treatment capacity (indirectly inducing population growth) and the types of equipment and number of construction activities occurring concurrently would be similar to that evaluated in the PEIR.
- **Public Services and Facilities.** The nature of the project with respect to population growth and impairment of achieving service performance objectives has not changed.
- **Utilities and Service Systems.** The nature of the project with respect to wastewater collection and treatment, water use, and solid waste disposal has not changed.
- **Mandatory Findings of Significance.** For the reasons identified above, the cultural resources and hazardous materials effects of the project are adequately addressed in the PEIR. One additional project (resurfacing the San Francisco Bay Trail within the City of Sunnyvale and neighboring areas) that was not identified in the PEIR occurred in the vicinity of the project; these changes in the cumulative scenario would not alter the cumulative impact conclusions of the PEIR beyond the discussions included in this addendum. The effects of the project on human beings are adequately addressed in the PEIR except for Transportation, Air Quality, Greenhouse Gas, and Hydrology and Water Quality impacts, which are discussed in this addendum.

Changes and additions to the PEIR discussion of the remaining topics are included below, pursuant to CEQA Guidelines Section 15164. The following discussion describes the environmental impacts of the project as compared to the impacts of the approved Master Plan as addressed in the PEIR adopted August 23, 2016. These additions do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; for these reasons, a subsequent EIR was not prepared.

3.1 Transportation

| <i>Issues (and Supporting Information Sources):</i> | <i>Potentially Significant Effects Not Identified in Prior EIR</i> | <i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i> | <i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i> | <i>No New or More Severe Significant Effects</i> |
|--|--|---|---|--|
| TRANSPORTATION — Would the project: | | | | |
| a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

The environmental setting relevant to Transportation for the project has not changed relative to the setting in the PEIR. Existing traffic patterns, the transit network, and alternative transportation facilities have not changed since adoption of the PEIR. Setting discussions from the adopted PEIR for this resource are therefore applicable to the entire project area.

With respect to Issue b), the PEIR did not evaluate consistency with CEQA Guidelines Section 15064.3, subdivision (b), as that issue was introduced as part of the December 2018 update to the CEQA Guidelines, which occurred after the PEIR was certified. Pursuant to Section 15064.3, subdivision (b), and Senate Bill (SB) 743, the City of Sunnyvale adopted Policy 1.2.8 (Transportation Analysis Policy) on June 30, 2020, transitioning from using delay and level-of-service (LOS) to measure transportation impacts to using vehicle miles traveled (VMT). For purposes of comparison with the PEIR, this addendum uses automobile delay for discussion and analysis though VMT remains the measure used to determine the significance of a traffic impact per the CEQA Guidelines.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to transportation would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to transportation impacts from this project.

Discussion

Conflict with a Program, Plan, Ordinance, or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle and Pedestrian Facilities

Local and Regional Roadways

As described in the PEIR, the Master Plan would result in a peak of 564 one-way truck trips and 84 one-way construction worker vehicle trips per day during construction. The project would generate a maximum of 60 one-way truck trips per day during construction. The approximately 10 construction workers would likely commute to and from the work site during peak hours. Truck trips and construction worker trips that would coincide with peak-hour traffic could impede traffic flow on local roadways, a potentially significant impact. With implementation of adopted Mitigation Measures TR-1a and TR-1b, this impact would be reduced to less-than-significant levels, and the impact would not be more severe than that identified in the approved PEIR.

As discussed in the PEIR, Caribbean Drive is the Congestion Management Program (CMP) system network roadway nearest to the project area. The project could generate new (increased) traffic once operational as up to 33 additional staff are added to the building who are not currently stationed at the WPCP, increasing the volume of traffic on Caribbean Drive. The annual average daily traffic on Caribbean Drive near the project site as of 2019 (7,434 vehicles) is less than the annual average weekday daily traffic identified in the PEIR (13,248 vehicles) (Tracking California, 2019). Since certification of the PEIR, the Santa Clara Valley Transportation Authority (VTA) has conducted more recent annual monitoring along the CMP system network. To comply with the CMP standard, all CMP roadways (excluding freeways) must operate at or above the CMP traffic level of service standard of LOS E. An additional estimated 6,900 jobs were expected in Sunnyvale in 2016 based on commercial/industrial land use approvals (Santa Clara VTA, 2016). The addition of up to 41 jobs represents less than 0.5 percent of the annual increase estimated in 2016. With implementation of the Caribbean Drive Parking and Trail Access Enhancements project, Caribbean Drive would have five lanes in the vicinity of the WPCP. The carrying capacity for four-lane divided arterials (similar to the future Caribbean Drive) ranges from 20,000 to 33,000 vehicles per day. With the addition of 66 trips per day to Caribbean Drive, the project would not substantially worsen the existing daily volume-to-capacity ratio (currently 12,883/20,000 or 0.64; with the addition of 66 trips per day this would increase to 0.65). The proposed project would not result in new significant environmental effects or increase the severity of previously identified significant effects related to the congestion management program.

Transit, Bicycle, and Pedestrian Facilities

The project would not directly or indirectly eliminate alternative transportation corridors or facilities, nor would it include changes in adopted policies, plans, or programs that support alternative transportation. No new or more severe environmental impacts related to alternative transportation facilities would result from project implementation.

Conflict or Be Inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)

As discussed above in *Setting*, the PEIR did not evaluate this issue, as the issue was introduced as part of the December 2018 update to the current CEQA Guidelines, which occurred after the PEIR was certified. Section 15064.3 of the CEQA Guidelines suggests that the analysis of VMT impacts applies mainly to land use and transportation projects. Furthermore, the City of Sunnyvale's Policy 1.2.8 (Transportation Analysis Policy) states that projects that generate or attract fewer than 110 operational trips per day would meet the Small Infill Projects exemption, meaning that the project would be exempt from further consideration with respect to VMT and impacts are assumed to be less than significant (City of Sunnyvale, 2020b). Furthermore, impacts due to construction activities would be temporary and would not result in any meaningful long-term or permanent change in VMT. Per this statewide and local guidance, since the proposed Project is neither a land use nor a transportation project and meets the Small Infill Projects exemption, it can be assumed to have a less than significant impact with respect to VMT.

Substantially Increase Hazards Due to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)

During construction, while the number of haul trucks would be substantially lower than evaluated in the PEIR, traffic safety hazards could occur due to increased truck traffic with associated slower speeds and wider turning radii and where delivery and haul trucks share the roadway with other vehicles, the same impact as discussed in the PEIR. With implementation of adopted Mitigation Measure TR-1b, the impact of these potential construction traffic safety hazards would be less than significant with mitigation. There would be no change to lane or roadway configuration as part of the project; therefore, the operational effects of the project would be the same as those identified in the PEIR (less than significant). No new or more severe environmental impacts related to traffic safety would result from project implementation.

Result in inadequate emergency access

The project would include construction of two new motorized security gates on Carl Road (refer to Figure 5). As indicated in the Master Plan, while Carl Road west of Borregas Avenue would be closed to the public with implementation of the project, access to the main plant site would still be maintained via Borregas Avenue and Carl Road, east of Borregas Avenue. While the security gates would limit public access to the western end of Carl Road and the WPCP, the gates would be designed to accommodate emergency vehicle access to the WPCP. Therefore, the project would not result in new or more severe environmental impacts related to emergency access.

Cumulative Transportation Impacts During Construction

At the time of PEIR preparation, details typically used to determine cumulative transportation effects were not known. The PEIR estimated cumulative transportation effects by assuming a worst-case scenario in which construction peak periods overlap for most of the projects identified in the PEIR cumulative scenario (listed in PEIR Table 6-1). Project construction would overlap

with construction of the Secondary Treatment and Dewatering Facilities and existing facilities rehabilitation at the WPCP. Project construction may also overlap with construction of the SCVWD East-West Channels Flood Protection Project. It is possible that service levels along Caribbean Drive could be temporarily degraded by construction activity. With implementation of adopted Mitigation Measure C-TR-1, Implement Coordinated Transportation Management Plan, the project's contribution to a potential cumulative impact along Caribbean Drive would be less than cumulatively considerable.

Conclusion

The project would not generate more construction vehicle trips than those identified in the previously approved PEIR and would not result in new or more severe significant impacts than identified in the previously approved PEIR during operations, and therefore would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, or conflict with an applicable congestion management program.

Implementation of adopted Mitigation Measure TR-1b would reduce possible impacts related to traffic safety hazards during construction of the project to a less than significant level, and the project would not result in any new or more significant impacts.

The Project would not result in new or more significant impacts to public transit, bicycle and pedestrian facilities, or emergency access than those identified in the previously approved PEIR.

With the implementation of adopted Mitigation Measure C-TR-1 to reduce the project's possible contribution to cumulative transportation impacts, the project would not result in any new or more significant impacts than those identified in the previously adopted PEIR.

3.2 Air Quality

| <i>Issues (and Supporting Information Sources):</i> | <i>Potentially Significant Effects Not Identified in Prior EIR</i> | <i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i> | <i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i> | <i>No New or More Severe Significant Effects</i> |
|---|--|---|---|--|
| AIR QUALITY — Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

The air quality setting relevant to the project site, including applicable regulations and air quality conditions, has not appreciably changed since the adoption of the PEIR. The Bay Area Air District¹ (Air District) maintains regional authority for air quality management in the project area and the entire San Francisco Bay Area Air Basin (Bay Area).

The Federal Clean Air Act and the California Clean Air Act both require the establishment of standards for ambient concentrations of air pollutants, called ambient air quality standards. The Bay Area continues to experience occasional violations of ozone and particulate matter (PM₁₀ and PM_{2.5}) standards. Therefore, the project area currently is designated as a non-attainment area for violation of the state 8-hour ozone standards, the federal ozone 8-hour standard, the state respirable particulate matter (PM₁₀) 24-hour and annual average standards, and the federal fine particulate matter (PM_{2.5}) 24-hour standard. The project area is designated as attainment for all other state and federal standards (Air District, 2025).

Air Quality Plans

Regional air quality planning has proceeded since adoption of the PEIR. On April 19, 2017, the Air District adopted the most recent revision to the Clean Air Plan – the *2017 Clean Air Plan: Spare the Air Cool the Climate* (2017 CAP; Air District, 2017). The primary goals of the 2017 CAP are to protect public health and protect the climate. The plan includes a wide range of control measures to reduce emissions from combustion-related activities, reduce fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases (GHGs). Some measures focus on reducing individual pollutants such as potent GHGs like methane and black carbon, or harmful fine

¹ As of January 2025, the Bay Area Air Quality Management District, or BAAQMD, announced “Bay Area Air District” as its new agency name.

particles that affect public health. Many of the measures, however, reduce multiple pollutants and serve both to protect public health and to protect the climate.

The 2017 CAP updates the *2010 Clean Air Plan*, pursuant to air quality planning requirements defined in the California Health and Safety Code. It describes a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as GHGs that contribute to climate change. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NO_x)—and to reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 CAP builds upon and enhances the Air District’s efforts to reduce emissions of fine particulate matter and toxic air contaminants. The 2017 CAP includes the Bay Area’s first-ever comprehensive Regional Climate Protection Strategy (RCPS), which will identify potential rules, control measures, and strategies that the Air District can pursue to reduce GHGs in the Bay Area and lay the groundwork to attain ambitious GHG reduction targets for 2030 and 2050.

Air District Rules, Regulations, and CEQA Guidelines

The Air District California Environmental Quality Act Air Quality Guidelines (CEQA Guidelines) is an advisory document that provides lead agencies, consultants, and project proponents with procedures for assessing air quality impacts and preparing environmental review documents (Air District, 2023). The document describes the criteria that the Air District uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects and plans would have significant adverse environmental impacts, describes methods for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The Air District states that the quantitative significance thresholds are “advisory and should be followed by local governments at their own discretion,” and that lead agencies are fully within their authority to develop their own thresholds of significance. However, the Air District offers these thresholds for lead agencies to use to inform environmental review for development projects in the Bay Area.

The PEIR was prepared using the 2011 CEQA Guidelines, which were the applicable standards at the time. Since adoption of the PEIR, the Air District CEQA Guidelines have been updated in 2017 and 2023 to update outdated references, analytical methodologies, and technical information. The Air District’s most recent update to its CEQA Guidelines (2022 CEQA Guidelines) was adopted in April 2023 (Air District, 2023), after adoption of the PEIR.

According to the 2022 CEQA Guidelines, a project would be considered to have a significant impact to existing air quality conditions within the SFBAAB if emissions and health risk hazards from construction and operation of a project were to exceed the significance thresholds shown in **Table 3.2-1**.

To determine the significance of fugitive dust emissions, the Air District recommends taking a qualitative approach. According to the Air District CEQA Guidelines, a project would have a less-than-significant impact with regard to emissions of fugitive dust if it were to implement the

Basic Best Management Practices (BMPs) for Construction-Related Fugitive Dust Emissions recommended by the Air District in Section 5.2.2 of the Air District 2022 CEQA Guidelines (Air District, 2023). The current analysis uses the same significance thresholds as used in the PEIR.

**TABLE 3.2-1
AIR DISTRICT AIR QUALITY SIGNIFICANCE THRESHOLDS**

| Criteria Air Pollutants | | | |
|--|--|---|---|
| | Construction Thresholds Average Daily Emissions (lbs./day) | Operational Thresholds Average Daily Emissions (lbs./day) | Operational Thresholds Annual Average Emissions (tons/year) |
| ROG, NO _x , PM _{2.5} | 54 ^a | 54 | 10 |
| PM ₁₀ | 82 ^a | 82 | 15 |
| CO | Not Applicable | 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) | |
| Fugitive Dust (PM _{2.5} , PM ₁₀) ^b | Construction Dust Ordinance or other Best Management Practices | Not Applicable | |
| Health Risks and Hazards | | | |
| | Construction Thresholds | Operational Thresholds | |
| Excess Cancer Risk | 10 per one million | 10 per one million | |
| Chronic or Acute Hazard Index | 1.0 | 1.0 | |
| Incremental annual average PM _{2.5} | 0.3 µg/m ³ | 0.3 µg/m ³ | |

NOTE: µg/m³ = micrograms per cubic meter; CO = carbon monoxide; lbs/day = pounds per day; NO_x = oxides of nitrogen; PM_{2.5}= fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppm = parts per million; ROG = reactive organic gases; TACs = toxic air contaminants; tpy = tons per year; VMT =vehicle miles traveled.

^a Construction emissions PM₁₀ and PM_{2.5} thresholds are for exhaust emissions only.

^b The Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.

SOURCE: Air District, 2023

The WPCP is currently subject to the Operating Permit requirements of Title V of the federal Clean Air Act. Air District is responsible for issuing Title V permits. The most recent permit for the WPCP (Facility #A0733) was issued in July 2018 (Air District, 2018).

Sensitive Receptors

Sensitive receptors, as identified and discussed in the adopted PEIR, have not changed and remain applicable to the project. No new residential buildings, schools, colleges or universities, daycare facilities, hospitals, or senior-care facilities have been constructed closer to the WPCP than the sensitive receptors identified in the PEIR (located immediately south of State Route 237, 0.8-mile from the project site). While the 2022 Air District CEQA Guidelines include consideration of off-site worker receptors for health risk assessment purposes, no off-site workers are located within 1,000 feet of the project site. Therefore, the sensitive receptor analysis in the PEIR remains valid.

Findings of the Previously Adopted PEIR

The PEIR identified significant and unavoidable impacts associated with the project related to the potential to conflict with the applicable air quality plan and the potential to violate an air quality standard or contribute to an air quality violation. The extent to which the project could result in a cumulatively considerable net increase of criteria air pollutant emissions, expose sensitive receptors to pollutant concentrations, and the potential of the project to create objectionable odors affecting a substantial number of people were determined to be less-than-significant impacts. One of the mitigation measures identified in the PEIR and subsequently adopted by the City (Mitigation Measure AQ-2a) is reproduced in Chapter 5, *Mitigation Monitoring and Reporting Program*.

Discussion

Consistency with Air Quality Plan

As described in the PEIR, the Air District recommends that a project's consistency with the current air quality plan be evaluated using the following three criteria:

- a. The project supports the goals of the air quality plan
- b. The project includes applicable control measures from the air quality plan, and
- c. The project does not disrupt or hinder implementation of any control measures from the air quality plan.

If it can be concluded with substantial evidence that a project would be consistent with the above three criteria, then the Air District considers it to be consistent with air quality plans prepared for the Bay Area (Air District, 2017).

Since approval of the PEIR, the air quality plan has been updated. The primary goals of the 2017 CAP are to protect public health and protect the climate. One way to demonstrate that a project supports the goals of the current air quality plan is by showing consistency with Air District thresholds of significance. If project emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2017 CAP. As indicated in the following discussion regarding cumulative increase in pollutants, implementation of PEIR Mitigation Measure AQ-2a would reduce construction-related emissions to a less-than-significant level. Mitigation Measure AQ-2a requires compliance with Air District's Basic Best Management Practices for controlling fugitive dust during construction. Mitigation Measure AQ-2a is revised as shown below to incorporate the most recent Best Management Practices recommended by the Air District for fugitive dust impacts to be considered less than significant. The project would also result in operational emissions less than the significance thresholds. Therefore, the project would be considered to support the primary goals of the 2017 CAP.

The 2017 CAP contains 85 control measures aimed at reducing air pollution in the Bay Area. Projects that incorporate all feasible control measures are considered consistent with the 2017 CAP. Two of the stationary source control measures are applicable to the construction of the project; SS36 (PM from Trackout) and SS38 (Fugitive Dust). The stationary source control measures align

with Air District's recommended best practices for minimizing fugitive dust emissions during construction. Specifically, these measures are consistent with the Air District's Basic Best Management Practices, which include actions such as applying water to exposed surfaces, covering haul trucks, and cleaning trackout areas to prevent off-site dust migration. These practices have been incorporated into the project as revisions to Mitigation Measure AQ-2a. Two of the water control measures are applicable to operation of water pollution control plants: WR1 (Limit GHGs from Publicly-Owned Treatment Works) and WR2 (Support Water Conservation). While the water control source measures do not contain specific emissions control strategies, the project would not be inconsistent with these measures as the project would not affect methane capture at the WPCP, would not affect production of recycled water at the WPCP, and would not install combustion engines. For these reasons, the project would not be inconsistent with nor hinder implementation of the 2017 CAP control measures.

In summary, the project would be consistent with all three criteria listed above to evaluate consistency with the 2017 CAP and, therefore, would not conflict with or obstruct implementation of the 2017 CAP.

Cumulative Increase in Pollutants

According to the Air District, no single project will, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The Air District CEQA Guidelines recommends using its quantitative thresholds of significance to determine if an individual project's emissions would considerably contribute to cumulative air quality impacts in the region. If a project's emissions exceed the identified significance thresholds, its contribution to cumulative air quality would be considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (Air District, 2023). Alternatively, if a project does not exceed the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts.

As discussed above, the PEIR disclosed significant and unavoidable impacts related to the potential to conflict with an applicable air quality plan and potential to violate air quality standards. Therefore, the contribution of the Master Plan, including the Project, to cumulative air quality impacts was also described as being significant. In the following discussion the Project's contribution to the cumulative air quality of the area is evaluated by comparing its construction and operational emissions to the applicable Air District thresholds.

Construction

At the time of PEIR preparation, details typically used to calculate air pollutant emissions (such as the number of pieces of each type of off- and on-road equipment and daily equipment usage rates in terms of hours per day and total days of use) were not known. The PEIR estimated the anticipated air pollutant emissions of WPCP projects by estimating the relative magnitude of construction activity compared to other, better-defined projects planned at the site. The City anticipated that when project-level CEQA review of Master Plan improvements is initiated, the

PEIR analysis would be reviewed considering updated construction information and analysis of air pollutant emissions would be revised accordingly.

Construction-related emissions are considered short-term in duration; nevertheless, construction emissions can represent a significant adverse impact on air quality. During construction, the project would generate criteria air pollutants emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from operation of heavy-duty construction equipment, operation of worker vehicles and haul trucks, excavation of materials, paving activities, and application of architectural coatings. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1 and then compared to the Air District's applicable project-level significance thresholds. Project-specific information was provided by the project applicant including project size and anticipated construction start date. Where project-specific data was not available, CalEEMod defaults were used. Detailed modeling assumptions are included in **Appendix A** in this document.

Construction of the project is expected to begin in January 2027 with operations anticipated to commence in 2029. The project would include demolition and off-haul of approximately 6,600 square feet of existing structures, export of approximately 4,752 cubic yards of material from the site. The number of construction truck trips was based on these volumes, assuming a 14 cubic yard capacity truck. The exact end points for the daily trips are not known at this time; therefore, the on-road emission estimates were developed using CalEEMod default trip lengths for Santa Clara County.

All assumptions and calculations used to estimate the Project-related construction emissions are provided in Appendix A. Estimated average daily emissions are shown in **Table 3.2-2** and are compared to the Air District thresholds.

**TABLE 3.2-2
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS FOR THE PROJECT (POUNDS/DAY)**

| Construction Phase | ROG | NO _x | Exhaust PM ₁₀ ^a | Exhaust PM _{2.5} ^a |
|--------------------------------------|------|-----------------|---------------------------------------|--|
| 2027 | 1.41 | 12.36 | 0.51 | 0.47 |
| 2028 | 1.41 | 12.03 | 0.38 | 0.35 |
| 2029 | 6.35 | 9.08 | 0.26 | 0.24 |
| Air District Construction Thresholds | 54 | 54 | 82 | 54 |
| Significant Impact? | No | No | No | No |

NOTES: Emissions are average daily pounds per day and are estimated by dividing the annual construction emissions generated by the project by the total number of construction workdays in each year.

^a Air District's construction-related significance thresholds for PM₁₀ and PM_{2.5} apply to exhaust emissions only and not to fugitive dust.

SOURCE: Appendix A

As indicated in Table 3.2-2, the average daily construction exhaust emissions would not exceed the Air District's significance thresholds for construction. To reduce fugitive dust emissions to a less-than-significant level, Air District requires implementation of its Basic Best Management Practices during construction. These practices have been adopted by the City as Mitigation Measure AQ-2a. Mitigation Measure AQ-2a has been revised to be consistent with the most

recent best management practices recommended by the Air District in its 2022 CEQA Guidelines, as shown in strikethrough and double-underline below. Therefore, with implementation of revised Mitigation Measure AQ-2a, the project's construction-related exhaust and fugitive dust emissions would be less than significant.

Mitigation Measure AQ-2a: Implement Air District Basic Construction Mitigation Measures. The City shall implement the following applicable Air District Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust:

- 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 offsite shall be covered.
- All visible mud or dirt track-out 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.
- ~~Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.~~
- ~~All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.~~
- ~~Post a publicly visible sign with the telephone number and person to contact at the City or City's contractor regarding dust complaints. This person shall respond and the contractor shall take corrective action within 48 hours.~~
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour.
- 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 farther 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 lead agency 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.

Operation

No new staff would be needed to operate the new facilities and the frequency of deliveries to the WPCP would not change. However, analysis below assumes that the project could generate new (increased) operational traffic from up to 41 additional staff commuting to the facility who are not currently stationed at the WPCP. Although many of the new workstations may replace existing workstations at other locations, and some commute trips within Sunnyvale may not represent net new trips, for purposes of a conservative analysis, it is assumed that all commute trips would be new. The frequency of delivery truck trips to the WPCP would remain the same as existing. The additional commute trips would generate criteria pollutant emissions, in addition to area sources such as landscaping maintenance. Operational emissions estimated using CalEEMod are shown in **Table 3.2-3** below. Total operational emissions from the project would be well below the Air District operational thresholds resulting in a less than significant impact.

**TABLE 3.2-3
PROJECT OPERATIONAL POLLUTANT EMISSIONS**

| Operational Source | ROG (ppd/tpy) | NO _x (ppd/tpy) | PM ₁₀ (ppd/tpy) | PM _{2.5} (ppd/tpy) |
|--|---------------|---------------------------|----------------------------|-----------------------------|
| Mobile Sources | 0.21 / 0.04 | 0.21 / 0.04 | 0.64 / 0.12 | 0.16 / 0.03 |
| Area Sources | 0.87 / 0.16 | 0.01 / <0.01 | <0.01 / <0.01 | <0.01 / <0.01 |
| Total Project Emissions | 1.08 / 0.20 | 0.21 / 0.04 | 0.64 / 0.12 | 0.16 / 0.03 |
| Air District Thresholds (ppd/day tons/year) | 54 / 10 | 54 / 10 | 82 / 15 | 54 / 10 |
| Significant Impact? | No | No | No | No |

NOTE: ppd = pounds per day; tpy = tons per year

Totals may not add up due to rounding.

SOURCE: Appendix A

Given that construction and operational emissions associated with the project would be less than the respective Air District significance thresholds, the project's individual air quality impact as well as the contribution to the cumulative air quality impact in the area would be less than significant.

Exposure of Sensitive Receptors

As noted above, no new sensitive receptors are located closer to the project area than those identified in the PEIR. For this reason, the project's effects associated with exposure of sensitive receptors to pollutants would be no greater than those identified in the PEIR and would be less than significant.

Odorous Emissions

The project would not include operation of an odor source. No new or more severe environmental effects related to odors would result beyond those identified in the PEIR.

Conclusion

Construction emissions associated with the Cleanwater Center project would be below Air District thresholds with the implementation of adopted Mitigation Measures AQ-2a as revised to be consistent with the most recent best management practices recommended by the Air District. Operational emissions would also be less than the respective Air District thresholds. In addition, the project would not conflict with or hinder implementation of any measures in the 2017 CAP. Therefore, the project would be consistent with the 2017 CAP and 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 project would not result in additional exposure of sensitive receptors to substantial pollutant concentrations, or create additional objectionable odors affecting a substantial number of people.

Therefore, the project would not result in new significant impacts related to air quality that were not previously identified in the PEIR; would not result in more severe impacts than those identified in the PEIR; and would not require new mitigation measures.

3.3 Greenhouse Gas Emissions

| <i>Issues (and Supporting Information Sources):</i> | <i>Potentially Significant Effects Not Identified in Prior EIR</i> | <i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i> | <i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i> | <i>No New or More Severe Significant Effects</i> |
|---|--|---|---|--|
| GREENHOUSE GAS EMISSIONS — | | | | |
| Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

As a climate action leader, California has continued to demonstrate its commitment to early and aggressive action on climate change. The State Legislature and Governor have adopted ambitious targets to encourage bolder climate action, including statewide GHG emissions reduction targets of reaching:

- 1990 levels by 2020 (Assembly Bill [AB] 32 in 2006)
- 40 percent below 1990 levels by 2030 (SB 32 in 2016)
- 80 percent below 1990 levels by 2050 (Executive Order S-3- 05 in 2005)

In September 2018, Governor Brown signed SB 100 into law, setting a state target of 100 percent carbon-free electricity by 2045. SB 100 also sets interim requirements for 50 percent renewable electricity by 2026 and 60 percent by 2030, superseding previously established targets. Also in September 2018, Governor Brown signed Executive Order B-55-18, which establishes a new statewide goal to “achieve carbon neutrality as soon as possible, no later than 2045, and achieve and maintain net negative emissions thereafter”.

Signed into law in September 2022, AB 1279 requires California to achieve two objectives by 2045 or sooner: (1) net zero GHG emissions and (2) a reduction in statewide anthropogenic GHG emissions of 85 percent below 1990 levels. AB 1279 requires the California Air Resources Board to ensure that the 2022 *Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for CO₂ removal and carbon capture, utilization, and storage technologies.

The three planning documents identified in the PEIR– the 2014 Sunnyvale Climate Action Plan, the Bay Area Air Quality Management District’s (Air District) 2010 Clean Air Plan, and California Air Resources Board’s 2008 Climate Change Scoping Plan – have all been updated since PEIR approval. The City of Sunnyvale Climate Action Plan was updated in 2024 as the Climate Action Playbook Update and Game Plan 2028 (2024 Climate Action Playbook) to include the City’s strategies to reach the state’s GHG reduction goals for 2030 and 2045 (City of Sunnyvale, 2024). As discussed above in Air Quality, the 2017 CAP was released after approval

of the PEIR. California Air Resources Board’s Climate Change Scoping Plan was also updated most recently in 2022, and expands on prior Scoping Plans in response to AB 1279 by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State’s climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB, 2022). The actions and outcomes in the 2022 Scoping Plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Air District CEQA Guidelines and Significance Thresholds

The PEIR was prepared using the 2011 CEQA Guidelines, which were the applicable standards at the time. Since adoption of the PEIR, the Air District CEQA Guidelines have been updated in 2017 and 2023 to update outdated references, analytical methodologies, and technical information. The Air District’s most recent update to its CEQA Guidelines (2022 CEQA Guidelines) was adopted in April 2023 (Air District, 2023), after adoption of the PEIR. The 2011 CEQA Guidelines identified a 10,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) per year as its net annual emissions threshold for combined construction and operational sources. However, the 2022 CEQA Guidelines no longer use this combined threshold approach; instead, they provide updated methods for GHG emissions and recommend evaluating significance based on consistency with applicable plans and policies, such as the state climate targets, rather than relying solely on a numeric threshold.

In April 2022, in response to Senate Bill (SB) 32 and 2017 Scoping Plan Update targets for 2030 and Executive Order (EO) B-30-15 target for carbon neutrality no later than 2045, the Air District adopted updated CEQA significance thresholds for GHGs and included them in the 2023 update to the Air District CEQA Guidelines (Air District, 2022; 2023). The Air District has not adopted quantitative GHG thresholds for construction, citing, “Because construction emissions are temporary and variable, the Air District has not developed a quantitative threshold of significance for construction-related GHG emissions. However, the Lead Agency should quantify and disclose GHG emissions that would occur during construction” (Air District, 2023).

Operational thresholds were identified by Air District as the requirements for new land use development projects to achieve California’s long-term climate goal of carbon neutrality by 2045 as outlined in the 2022 Scoping Plan. To avoid the finding of a significant impact related to climate change, a land use project must comply with threshold A or B below:

A. Projects must include, at minimum, the following project design elements:

Buildings:

1. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
2. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

Transportation:

3. 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, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:
 - Residential projects: 15 percent below existing VMT per capita.
 - Office projects: 15 percent below the existing VMT per employee.
 - Retail projects: No net increase in existing VMT.
 4. Achieve compliance with off-street Tier 2 electric vehicle charging requirements in the most recently adopted version of CALGreen.
- B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Findings of the Previously Adopted PEIR

The PEIR identified less than significant impacts associated with the project related to conflict with plans adopted regarding GHG emissions and generation of GHG emissions.

Discussion

GHG Emissions

Construction

At the time of PEIR preparation, details typically used to calculate GHG emissions (such as the number of pieces of each type of off- and on-road equipment and daily equipment usage rates in terms of hours per day and total days of use) were not known. The PEIR estimated the anticipated GHG emissions of Master Plan by estimating the relative magnitude of construction activity compared to other, better-defined projects planned at the site. The City anticipated that when project-level CEQA review of Master Plan improvements were initiated, the PEIR analysis would be reviewed considering updated construction information and analysis of GHG emissions would be revised accordingly.

GHG emissions for the project were derived from the California Emissions Estimator Model (CalEEMod; version 2022.1.1) conducted for the analysis of air quality impacts (see Section 3.2, Air Quality). The GHG emissions estimate from CalEEMod includes emissions from both construction and operation. Construction emissions include emissions from off-road construction equipment as well as on-road motor vehicles used during construction for worker commute and transport of materials and equipment. Project-specific information was provided by the project applicant including project size and anticipated construction start date. Where project-specific data was not available, CalEEMod defaults were used. Detailed modeling assumptions are included in **Appendix A** in this document.

Construction of the project is expected to begin in January 2027 with operations anticipated to commence in 2029. The project would include demolition and off-haul of approximately 6,600 square feet of existing structures, export of approximately 4,752 cubic yards of material from the site. The number of construction truck trips was based on these volumes, assuming a 14 cubic yard capacity truck. The exact end points for the daily trips are not known at this time; therefore, the on-road emission estimates were developed using CalEEMod default trip lengths for Santa Clara County.

Table 3.3-1 shows the GHG emissions associated with project construction. As shown in the table, project construction would generate a total of approximately 796 metric tons carbon dioxide equivalent (MTCO₂e) over the construction period. Air District has neither adopted nor recommended GHG thresholds for construction emissions in their Air District CEQA Guidelines. Instead, it recommends that a determination of the significance of a project’s construction emission impacts be made in relation to meeting the State’s GHG reduction goals.

**TABLE 3.3-1
TOTAL ESTIMATED GHG EMISSIONS FROM CONSTRUCTION**

| Construction Year | GHG Emissions (metric tons) |
|---------------------|-----------------------------|
| | CO ₂ e |
| 2027 | 349 |
| 2028 | 376 |
| 2029 | 71 |
| Total GHG Emissions | 796 |

NOTE: CO₂e = carbon dioxide equivalent
SOURCE: Appendix A.

Operation

Once operational, the project would generate long-term GHG emissions from direct and indirect sources. Direct GHG emissions would result primarily from vehicle travel related to employee commute trips and energy use at the project. Indirect GHG emissions would be generated from the generation of electricity used at the project, disposal of solid waste generated, and the distribution and treatment of water and wastewater conveyed to and from the project, respectively.

Direct emission sources that would generate GHG emissions during project operation would primarily result from employee commute trips, which are estimated to include approximately 41 additional workers, generating a total of about 82 daily vehicle trips. While most of the new Cleanwater Center workspaces would replace workspaces in other areas of Sunnyvale, for purposes on analysis it is conservatively assumed that these would be new workspaces that generate new commute trips. The new facilities in this project would increase the power demands at the WPCP. After the Primary Treatment Facility project is complete, the WPCP’s demand will exceed the capacity of the power generation facility. Therefore, the additional electrical demand for the project would be met by electricity from Pacific Gas & Electric (PG&E) and Silicon Valley Clean Energy (SVCE). Currently, the City’s electricity accounts use SVCE’s “Green Prime” option, which comes from 100 percent renewable energy and would therefore not

generate any indirect GHG emissions. **Table 3.3-2** shows GHG emissions associated with project operation would generate 212 MTCO_{2e} annually.

**TABLE 3.3-2
ANNUAL GHG EMISSIONS FROM PROJECT OPERATION**

| Source | Annual GHG Emissions (MTCO _{2e} per year) |
|----------------------------|---|
| Area | <1 |
| Energy Use ^a | 87 |
| Mobile | 104 |
| Solid waste | 9 |
| Water & Wastewater | 11 |
| Refrigerants | <1 |
| Total GHG Emissions | 212 |

NOTE: MTCO_{2e} = metric ton of carbon dioxide equivalent
Totals may not add up due to rounding.

^a Energy use includes the direct increase of electricity demand and converted natural gas usage to electricity

SOURCE: Appendix A.

While the City's 2024 Climate Action Playbook is a qualified GHG reduction strategy pursuant to the Air District CEQA Guidelines and CEQA Guidelines Section 15183.5(b), the City has not published a project-level compliance checklist for demonstrating consistency with the Playbook. Therefore, the analysis presented below relies on the Air District Option A threshold approach and evaluates the project based on the four project design features identified under Option A.

- The project would not include natural gas appliances or natural gas plumbing. It is designed to be all-electric. The project would therefore comply with Air District threshold A.1.
- 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. Development must comply with various regulations designed to reduce GHG emissions, including the Building Energy Efficiency Standards (Title 24, Part 6) and the California Green Building Standards Code (Title 24, Part 11). All the electrical demand for the facilities proposed in this project would be met by power provided by PG&E and SVCE. Designing the building to use a permanent supply of clean electricity would reduce the annual operational GHG emissions from energy use associated with the project. The project would therefore comply with Air District threshold A.2.
- The project is presumed to achieve reduction in project-generated VMT below the regional average as further discussed in Section 3.1, Transportation. The project would generate or attract fewer than 110 operational trips per day, which would meet the Small Infill Projects exemption by the City. The project would therefore comply with Air District threshold A.3.
- The project would comply with CalGreen Tier 2 voluntary electric vehicle (EV) charging infrastructure requirements for nonresidential uses. CalGreen Tier 2 requires a certain number of EV-capable spaces and spaces equipped with EV charging stations based on proposed parking spaces. The spaces provided by the new parking lot is currently unknown, however, electric vehicle charging stations would be installed as part of the project, thereby supporting

enhanced EV accessibility and reducing potential GHG emissions associated with transportation. The project would therefore comply with Air District threshold A.4.

The application of Air District's current operational GHG thresholds in this addendum for the project is not considered a substantial change or new information of substantial importance pursuant to CEQA Guidelines Section 15162. As the project would comply with all four Air District thresholds, the project's generation of GHG emissions, either directly or indirectly, would not have a significant impact on the environment. This impact would be less than significant, consistent with the determination in the PEIR.

Consistency with GHG Plans, Policies, or Regulations

2017 Clean Air Plan

The *2017 CAP* has 85 control measures, more than the 55 included in the *2010 Clean Air Plan*. Two of the water control measures are applicable to operation of water pollution control plants: WR1 (Limit GHGs from Publicly-Owned Treatment Works) and WR2 (Support Water Conservation). While both measures do not contain specific emissions control strategies, the project would not be inconsistent with these measures as the project would not affect existing methane capture at the WPCP, would not affect production of recycled water at the WPCP. Therefore, the project would not disrupt or hinder implementation of any of the GHG-related *2017 CAP* control measures.

2022 Scoping Plan to Achieve Carbon Neutrality

Air District's operational GHG thresholds were developed for the purpose of evaluating a project based on its effect on California's efforts to meet the State's long term climate goals. Air District finds that the following design element as discussed above, would be required of new land use development projects, in order to achieve California's carbon neutrality target by 2045. The 2022 Scoping Plan includes one action item that addresses the electrification of construction equipment: It requires that 25 percent of construction energy needs be powered by electricity by 2030, with the percentage increasing to 75 percent by 2045. However, the project's ability to meet this strategy depends on the availability of electric construction equipment in response to requirements imposed on equipment manufacturers and fleet owners. Therefore, this strategy is not directly implementable by the project. Therefore, this approach is consistent with the 2022 Scoping Plan and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions.

City of Sunnyvale 2024 Climate Action Playbook

This City of Sunnyvale's 2024 Climate Action Playbook establishes updated targets to reduce communitywide emissions 56 percent below 1990 levels by 2030 and 85 percent below 1990 levels by 2045, therefore by exceeding the State goals under SB 32 and aligning with AB 1279 and the CARB 2022 Scoping Plan.

The 2024 Climate Action Playbook identifies six key strategies and 18 plays associated with these strategies to achieve these reductions. Of the six strategies, the following two would apply to the project. Project consistency with these measures is discussed below.

Strategy 1: Promoting 100 Percent Clean Energy

The project's energy needs would be served by PG&E and SVCE. Electricity-related emissions in the City have been significantly reduced due to the transition from PG&E's conventional electricity mix to SVCE's 100 percent carbon-free electricity, which now serves nearly all residents and businesses. At the end of 2021, approximately 98 percent of Sunnyvale's residents and businesses were receiving carbon-free electricity through SVCE. The remaining emissions are associated with electricity procured from other electricity providers and from conventional (not carbon-free) sources. The project would benefit from the City's ongoing efforts to shift these remaining emissions to carbon-free sources by working with large purchasers of electricity that buy electricity from wholesale markets. Supply of clean electricity is a critical foundation for Strategies 2 (Decarbonizing Buildings) and 3 (Decarbonizing Transportation & Sustainable Land Use). As such, the City plans to continue supporting and expanding Sunnyvale's participation to transition all electricity accounts to SVCE's clean electricity.

Strategy 2: Decarbonizing Buildings

The project includes several energy efficiency measures incorporated into the design that reduce GHG emissions associated with heating and lighting. These include:

- High thermal efficiency in envelope, with rigid insulation and reduced thermal bridging. Envelope to meet or exceed 2025 Title 24 prescriptive requirements.
- High-performance low-e glazing.
- Electrochromic glazing on south and west facades to maximize daylighting while minimizing glare and heat gain.
- Skylights to reduce electric lighting load.
- Light-emitting diode interior and exterior lighting.
- Heat recovery variable refrigerant package heat pump system for Administrative areas (or high-efficiency variable air volume reheat system).
- High-efficiency WPCP cogeneration heated water loop, with onsite high-efficiency heat pump boiler.
- High-efficiency variable volume Lab Make-Up Air Unit (MAU).
- Air valves at hoods to reduce flow when unoccupied.

With these measures, the project is designed to optimize energy efficiency and is expected to earn 6 points towards a Gold Leadership in Energy and Environmental Design certification.

Strategy 3: Decarbonizing Transportation & Sustainable Land Use

Strategy 3 addresses the largest source of GHG emissions in the City by decarbonizing transportation and sustainable land use. The project would add up to 41 employees to the WPCP and could

increase traffic by up to 82 trips per day.² Consistent with this strategy, the project would install 31 electric vehicle charging stations to encourage employees to use electric vehicles and reduce GHG emissions.

The other three strategies aim to manage resources sustainably, empower the community and adapt to a changing climate. They do not contain any project level strategies and will be implemented on a Citywide basis.

In summary, the project would not conflict with GHG reduction measures either in the 2017 CAP, CARB 2022 Scoping Plan, or the City of Sunnyvale's 2024 Climate Action Playbook. Therefore, the project would not result in a cumulatively considerable increase in GHG emissions that would impair the State's ability to reduce GHG emissions.

Conclusion

The project would not result in new significant impacts related to greenhouse gas emissions that were not previously identified in the PEIR; would not result in more severe impacts than those identified in the PEIR; and would not require new mitigation measures.

² While the project's new workstations may mostly replace workstations in other locations, and so a portion of the commute trips within Sunnyvale may not be new, it is conservatively assumed for purposes of analysis that these would be new commute trips.

3.4 Hydrology and Water Quality

| <i>Issues (and Supporting Information Sources):</i> | <i>Potentially Significant Effects Not Identified in Prior EIR</i> | <i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i> | <i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i> | <i>No New or More Severe Significant Effects</i> |
|---|--|---|---|--|
| HYDROLOGY AND WATER QUALITY — Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) 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 addition of impervious surfaces, in a manner which would: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Result in substantial erosion or siltation on- or off-site; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Impede or redirect flood flow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

The environmental setting relevant to hydrology and water quality for the project site has not changed since adoption of the PEIR, with the exception of two National Pollutant Discharge Elimination System (NPDES) permits under which the Sunnyvale WPCP is permittee or co-permittee (described below). Setting discussions from the adopted PEIR for water quality standards, groundwater, surface water drainage patterns, and flood and inundation hazards are applicable to the project.

Effective April 1, 2020, Order No. R2-2014-0035 (Waste Discharge Requirements for Sunnyvale Water Pollution Control Plant and wastewater collection system) issued by the San Francisco Bay Regional Water Quality Control Board (RWQCB) was rescinded and replaced by Order No. R2-

2020-0002 (RWQCB, 2020). This order sets effluent limitations and discharge specifications for water discharged to Moffett Channel and San Francisco Bay from the Sunnyvale WPCP. The effluent limitations in the order are the same as shown in PEIR Table 4.10-7 with the exception of enterococcus bacteria, nickel, cyanide, and bis (2-Ethylhexyl) phthalate. The revised numeric effluent limitations are listed in **Table 3.4-1**, below.

**TABLE 3.4-1
SELECT REVISED NUMERIC EFFLUENT LIMITATIONS FOR THE WPCP**

| Parameter | Units | Average Monthly | Average Weekly | Maximum Daily | Other |
|---|----------------|-----------------|----------------|---------------|--|
| Previous Order | | | | | |
| Enterococcus bacteria | Not Applicable | - | - | - | 30-day mean not to exceed 35 colonies/100 mL |
| Nickel ^b | µg/L | 24 | - | 35 | - |
| Cyanide, Total ^b | µg/L | 7.5 | - | 17 | - |
| Bis (2-Ethylhexyl) Phthalate ^b | µg/L | 5.9 | - | 12 | - |
| Turbidity | NTU | - | - | - | Instantaneous maximum limit of 10 NTU |
| Revised Order | | | | | |
| Enterococcus bacteria | Not Applicable | - | - | - | Six-week mean not to exceed 30 colonies/100 mL No more than 10% samples > 110 CFU/100 mL |
| Nickel ^b | µg/L | 24 | - | 33 | - |
| Cyanide, Total ^b | µg/L | 7.0 | - | 17 | - |
| Bis (2-Ethylhexyl) Phthalate ^b | | n/a | n/a | n/a | n/a |
| Turbidity | NTU | | | | Instantaneous Maximum Limit of 10 NTU From October 1 through May 31, only applies when total suspended solids exceeds 20 mg/L |

NOTES:

^a Unit Abbreviations: mL = milliliters; mg/L = milligrams per liter; µg/L = micrograms per liter; NTU = nephelometric turbidity units; CFU = colony forming units.

^b Limitations apply to the average concentration of all samples collected during the averaging period (daily ~ 24-hour period; monthly ~ calendar month)

SOURCE: RWQCB, 2020

Effective January 1, 2018, Order No. R2-2012-0096 (Mercury and PCBs [Polychlorinated Biphenyls] Watershed Permit, NPDES No. CA0038849) issued by the San Francisco Bay RWQCB was rescinded and replaced by Order No. R2-2017-0041. The Sunnyvale WPCP is co-permittee to this order, which sets requirements for mercury and PCB concentrations in the WPCP effluent. The effluent limitations for average monthly and maximum daily PCB concentrations are the same as those specified for the Sunnyvale WPCP in the previous order and

shown in PEIR Table 4.10-7. Similarly, the effluent limitations for average weekly and monthly mercury concentrations are the same as shown in PEIR Table 4.10-7.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to hydrology and water quality would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to hydrology and water quality impacts from this project.

Discussion

The nature, scale, and timing of project construction have not changed in a manner that would deplete additional groundwater, further affect drainage patterns or systems, or alter water quality because the facilities would be located within the area of ground disturbance evaluated in the PEIR. The project would not change the wastewater treatment technologies beyond what was evaluated in the PEIR, and therefore would not alter treated water quality. The following discussion focuses on differences in groundwater and flooding during operations compared with the analysis conducted in the adopted PEIR.

Groundwater

Shallower unconfined groundwater is present in the project vicinity, at depths of approximately 12 feet below ground surface at the project site (Geosyntec, 2018). An aquitard separates the shallow groundwater from the deeper aquifers of the Santa Clara Basin and prevents groundwater impacted by landfill waste and leachate from moving downward (RWQCB, 2004).³

A Corrective Action Program is in place to monitor and control the flow of leachate and impacted groundwater from the landfill (Order No. R2-2004-0030). The Corrective Action Program is based on the hydraulic capture of groundwater by flow toward existing groundwater sinks (areas of relatively low groundwater pressure, toward which groundwater will preferentially flow), primarily stormwater and sanitary sewer pipelines along Borregas Avenue and Carl Road that discharge to the headworks of the main plant site. Groundwater quality monitoring wells G-20 and G-21, and leachate riser GR-3 are located nearest to the project site; none of these wells are located at the project site. Project construction activities, such as Recycle Yard pavement excavation are not anticipated to require the relocation of components of the existing Corrective Action Program.

As discussed in Chapter 2, *Project Description*, while deep soil mixing would occur to depths of 25 feet below ground surface, excavation would only be required for the upper three feet below ground surface. Although unlikely, groundwater could be encountered during excavation for the Cleanwater Center. At the Recycle Yard, excavation would generally be limited to approximately 6 inches for pavement removal, with localized trenching or excavation of up to 4 feet below ground

³ As discussed in Chapter 2, *Project Description*, a portion of the project site (Recycle Yard) has recently been found to be part of the Sunnyvale Landfill. The vast majority of the Sunnyvale Landfill ceased operation in 1993 and was subsequently closed pursuant to state requirements. Investigations have found landfilled waste underlying the project site, which is outside the limits of the landfill characterized in the landfill's Postclosure Maintenance Plan.

surface to install electrical conduits and foundations for electrical equipment, streetlights, and gates. Procedures for containment, handling, and disposal of groundwater generated from construction dewatering, and the method used to analyze groundwater for hazardous materials likely to be encountered at specific locations and appropriate treatment and/or disposal methods, would be specified for the project as part of adopted Mitigation Measure HAZ-2c. Compliance with these requirements would limit impacts related to changes in groundwater flow patterns and water quality to less-than-significant levels.

Flooding

The ground elevation of the project site is currently approximately 6 feet North American Vertical Datum of 1988 (NAVD88). As noted in the PEIR, the entire WPCP area, including most of the Cleanwater Center project site, is in the Federal Emergency Management Area (FEMA) special flood hazard area, and the base flood elevation at the WPCP mapped by FEMA is 11 feet NAVD88. The City of Sunnyvale has established flood protection criteria, which require flood protection to at least as high as the depth number specified in feet on the Flood Insurance Rate Map or to a level two feet above the base flood elevation if no depth number is specified. To comply with the City's flood protection criteria, the Cleanwater Center therefore must include design measures protective up to 11 feet NAVD88. Pursuant to the Sunnyvale Municipal Code, options to protect non-residential structures in the floodplain include elevating the lowest floor to at or above the flood protection level or floodproofing structural components below the flood protection level.

As discussed in PEIR Impact HYD-2, to address flooding at the WPCP, Master Plan improvements include establishment of a floodwall around the main plant site to protect it from tidal flooding. Segments of the floodwall are being constructed in stages along with the individual Master Plan projects at the main plant site. At the time of PEIR preparation, the Cleanwater Center was proposed at a location outside the floodwall. The Cleanwater Center as currently proposed would be within the proposed floodwall, which would extend vertically to an elevation of 14 feet (or approximately 8 feet above ground). A floodwall of this elevation would meet the protection criteria established by the City of Sunnyvale, and once connected with the other segments of the floodwall would maintain WPCP operations under the predicted 100-year tidal flood event with sea level rise up to 50 years into the future, which is predicted at 12.24 feet (Carollo/HDR, 2013). The Cleanwater Center therefore would not impede or redirect flood flows.

Conclusion

The project would comply with existing waste discharge requirements applicable to the WPCP and postclosure maintenance requirements applicable to the closed landfill, and would manage groundwater generated from construction dewatering in accordance with adopted Mitigation Measure HAZ-2c. The project would not otherwise degrade water quality.

The project would construct the Cleanwater Center within the FEMA special flood hazard area in accordance with the City of Sunnyvale flood protection criteria, which would not result in new or more significant impacts related to impedance or redirection of flood flows.

3.5 References

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CHAPTER 4

Conclusion

The modifications to the Cleanwater Center project would not result in new or more severe significant impacts than those attributable to the project described in the Sunnyvale Water Pollution Control Plant (WPCP) Master Plan Program Environmental Impact Report (PEIR).

The analyses and discussion in Chapter 3 do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There have been no changes in circumstances under which the project is undertaken that would result in new significant environmental impacts or substantially more severe impacts, and no new information has become available that would indicate the potential for new significant impacts or substantially more severe impacts than were discussed in the PEIR. Therefore, no further evaluation is required, and no Subsequent EIR is needed pursuant to CEQA Guidelines Section 15162.

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CHAPTER 5

Mitigation Monitoring and Reporting Program – Cleanwater Center

Table 5-1 presents mitigation measures and City actions to implement, monitor and report on these measures that apply to the Cleanwater Center project. These measures were adopted by the City Council on August 23, 2016. As discussed in Section 3.2, Air Quality, Mitigation Measure AQ-2a has been revised to be consistent with the most recent best management practices recommended by the BAAQMD in its 2022 CEQA Guidelines. **Table 5-2** presents other mitigation measures contained within the Sunnyvale Water Pollution Control Plant Master Plan Mitigation Monitoring and Reporting Program that do not apply to the project, and the reasons that they do not apply.

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**TABLE 5-1
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT**

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|--|--|--|------------------------------|---|
| Transportation | | | | | |
| <p>Mitigation Measure TR-1a: Truck Route Plan.</p> <p>As part of pre-construction submittals, the contractor(s) shall submit a truck route plan to the City of Sunnyvale Public Works Department for review and approval to help minimize impacts to adjacent roadways.</p> | <p>Contractor(s) shall obtain approval of truck route plan and implement plan during construction</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify, review and approve truck route plan.</p> | <p>Prior to construction</p> | <p><i>Verified by:</i> <i>Date:</i></p> |
| <p>Mitigation Measure TR-1b: Implement a Temporary Traffic Control Plan.</p> <p>The City's contractor(s) shall prepare and implement a traffic control plan using the City's Temporary Traffic Control guidelines to reduce traffic impacts on the roadways at and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. The City shall coordinate development and implementation of this plan with City departments (e.g., Emergency Services, Fire, Police, Transportation), as appropriate. To the extent applicable, the traffic control plan shall conform to the Caltrans' <i>California Manual on Uniform Traffic Control Devices</i>, Part 6 (Temporary Traffic Control; Caltrans, 2014). The traffic control plan shall include, but not be limited to, the following elements:</p> <ul style="list-style-type: none"> • Circulation and detour plans to minimize impacts on local road circulation during road and lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone. • Controlling and monitoring construction vehicle movement through the enforcement of standard construction specifications by onsite inspectors. • Sufficient staging areas for trucks accessing construction zones to minimize disruption of access to adjacent public rights-of-way. • Scheduling truck trips outside the peak morning and evening commute hours to the extent possible. • Maintaining pedestrian and bicycle access and circulation during project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users. • Identifying detours for bicycles and pedestrians, where applicable, in all areas affected by project construction. • Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of State legislated double fines for speed infractions in a construction zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone. • Coordinating construction with administrators of police and fire stations (including all fire protection agencies), and recreational facility managers. Operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures, where applicable. • Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized. | <p>Contractor(s) shall prepare plan that adheres to all measures listed</p> <p>Contractor(s) shall implement plan</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of plan in contract specifications</p> | <p>Prior to construction</p> | <p><i>Verified by:</i> <i>Date:</i></p> |
| <p>Mitigation Measure C-TR-1: Implement Coordinated Transportation Management Plan.</p> <p>Prior to construction, the City's respective contractor(s) shall develop a Coordinated Transportation Management Plan, and the City and its contractor(s) shall work with other projects' contractors and appropriate County and/or City departments (e.g., Emergency Services, Fire, Police, Transportation) as needed to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Master Plan improvements or the WPF, and to address the transportation impact of the overlapping construction projects within the vicinity of the Master Plan or the WPF in the region. The transportation management plan shall include, but not be limited to, the following requirements:</p> <ul style="list-style-type: none"> • Coordination of individual traffic control plans for the Master Plan or WPF with nearby projects. • Coordination between the contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address: <ul style="list-style-type: none"> – Full and partial roadways closures – Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices – Bicycle/Pedestrian detour plans, where applicable – Parking along public roadways – Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites – Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects. | <p>City's contractor(s) shall develop a plan that adheres to all measures listed.</p> <p>The City and its contractor(s) shall work with other project contractors, if necessary, and appropriate County and/or City departments for preparation and implementation of this plan.</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of this plan in the contract specifications.</p> | <p>Prior to construction</p> | <p><i>Verified by:</i> <i>Date:</i></p> |

**TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT**

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|---|--|--|---|--|
| Air Quality | | | | | |
| <p>Mitigation Measure AQ-2a: Implement BAAQMD Basic Construction Mitigation Measures.</p> <p>The City shall implement the following applicable BAAQMD Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust:</p> <ul style="list-style-type: none"> 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 offsite shall be covered. All visible mud or dirt track-out 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 miles per hour. 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 farther 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 lead agency 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. | <p>City or its contractor(s) implement BAAQMD Basic Construction Measures</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of measures in contract specifications and construction plans.</p> <p>Inspect construction site to confirm compliance by the contractor, report non-compliance and ensure corrective action.</p> | <p>Prior to construction</p> <p>During construction</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| Biological Resources | | | | | |
| <p>Mitigation Measure BIO-1a: Reduce Impacts on Congdon's Tarplant.</p> <ul style="list-style-type: none"> Within 2 years prior to initial ground disturbance for activities outside the main plant fence line, the City will retain a qualified biologist, or require the contractor to retain a qualified biologist, to conduct protocol-level surveys for Congdon's tarplant in suitable habitat in, and within 50 feet of, the proposed construction footprint. These surveys will be conducted in accordance with the protocols established by the CDFW and CNPS, and shall coincide with the bloom period for the species (May through November). If Congdon's tarplant is present in the survey area, the City's contractor will avoid impacts on individuals of this species to the extent feasible during implementation of the Master Plan. If Congdon's tarplant is present near the limits of disturbance, the City's contractor will maintain a buffer free from construction-related activities around the tarplant occurrence; this buffer will be at least 50 feet if feasible, but large enough to avoid indirect impacts such as dust mobilization and alteration of hydrology. The City's contractor shall demarcate the buffer in the field with orange fencing. No equipment or vehicles shall be permitted within the buffer area during construction. If 15 percent or more of the known population of Congdon's tarplant within five miles of the Master Plan area at the time of impact would be affected by the Master Plan, the City will provide compensatory mitigation. To compensate for loss of individual Congdon's tarplants, offsite habitat either occupied by the species or suitable for restoration to support the species and revegetated with this species (such as Sunnyvale Baylands Park) shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected). Seeds from the affected population shall be collected and used to seed the mitigation area. | <p>Contractor(s) shall prepare construction plans that incorporate protocol-level pre-construction surveys for Congdon's tarplant.</p> <p>The Contractor shall identify a qualified biologist.</p> <p>Qualified biologist will conduct pre-construction surveys.</p> <p>Qualified biologist to inspect construction site to confirm implementation of measures.</p> <p>Locate compensatory mitigation site, as needed, and select qualified biologist to collect and disseminate seeds from affected population during appropriate season (generally September/October)</p> <p>Qualified biologist shall collect and disseminate seeds from affected population during appropriate season</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Inspect and confirm implementation of construction buffer zone(s) based on pre-construction survey results.</p> <p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Secure record of planting from qualified biologist</p> | <p>Prior to commencement of construction.</p> <p>After completion of pre-construction survey report.</p> <p>One inspection shall occur during each phase of construction.</p> <p>After completion of pre-construction survey report.</p> <p>After completion of planting.</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure BIO-2a: Worker Environmental Awareness Training.</p> <p>The City will retain, or require the contractor to retain, a qualified biologist to conduct mandatory contractor/worker environmental awareness training for all construction personnel working on project activities outside of the main plant, including but not limited to Ponds 1 and 2, the diurnal equalization and emergency storage basins, channel levees, and the Bay Trail parking relocation area. The awareness training will be provided to all construction personnel to brief them on the potential for special-status species to occur on the site, the need to avoid effects to special-status species and their habitats, and all project mitigation measures pertaining to biological resources and water quality. If new construction personnel are added, the contractor will ensure that the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a special-status species or who finds a dead, injured, or entrapped individual. The representative's name and telephone number will be provided to the City prior to the initiation of construction activities outside of the main plant.</p> | <p>City or contractor(s) to retain a qualified biologist to conduct environmental awareness training for construction personnel.</p> <p>Qualified biologist to conduct training(s)</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan in contract specifications.</p> <p>Record name of appointed representative to contact</p> <p>Record date(s) of training</p> | <p>Prior to construction outside of the main plant</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

**TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT**

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|---|--|---|---|--|
| Biological Resources (cont.) | | | | | |
| <p>Mitigation Measure BIO-2b: Minimization of Impacts on Water Quality.</p> <p>The following measures will be incorporated into the construction stormwater pollution prevention plan and implemented during construction of Master Plan improvements to avoid or minimize impacts on water quality:</p> <ul style="list-style-type: none"> • Earth-moving in areas draining directly to wetlands and aquatic habitats will not occur during days when rain is occurring or predicted to occur (i.e., greater than 40 percent chance) during the work period. This measure applies to all Project areas with potential to drain directly to wetlands or aquatic habitats, particularly in or adjacent to the Southeast Channel, the Sunnyvale West Channel, the Cargill Channel, Ponds 1 and 2, and SCVWD Pond A4. • All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts associated with Master Plan activities. Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," available at www.capmphanbooks.com. • Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels. • No fueling shall be done in areas immediately adjacent to (i.e., within 50 feet of) channels, ponds, or wetlands. For stationary equipment that must be fueled on site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channels, ponds, or wetlands shall not be fueled in these sensitive habitat areas or the immediate floodplains surrounding them. • A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors working on the Master Plan, with at least one copy of the plan located onsite at all times. The purpose of the plan is to provide onsite construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of Master Plan elements. The primary objective of the plan is to prevent a spill of hazardous materials. Elements of the plan will include, but are not limited to the following: <ul style="list-style-type: none"> – A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas; – Materials Safety Data Sheets for all chemicals used and stored on site; – An inventory list of emergency equipment; – Spill control and countermeasures including employee spill prevention/response training; – Notification and documentation procedures; and – A monthly reporting plan. • Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area as described above for Mitigation Measure BIO-1b. No washing of vehicles will occur in Master Plan areas located outside of the main plant fence line. • The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. This measure includes all Master Plan areas located outside of the main plant fence line. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the Master Plan areas located outside of the main plant fence line. • Stockpiled materials outside of the main plant fence line will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as the channels, ponds, and wetlands). Heavy equipment will not be operated in the active channels or within wetland habitats, but instead from existing hardscape, access roads, and levees. • Water conservation methods will ensure that water used in the Master Plan area does not create surface flows capable of carrying pollutants to the nearby creek channel. All personnel, including sub-contractors will be instructed on the practical methods of preventing leaks or over-use of watering, and will be required to adhere to the practices in the detail sheets provided. Woody debris from tree trimming and other activities will not be left in the active channels or in wetland habitats. • In-channel vegetation removal may result in increased local erosion in the channels due to increased flow velocity. To minimize such erosion, the toe of the bank will be protected by leaving vegetation within the channel to the maximum extent practicable. | <p>City or contractor(s) to retain a qualified water quality specialist to prepare a stormwater pollution prevention plan that adheres to all measures</p> <p>Contractor(s) to include plan in construction plans</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of plan in contract specifications</p> <p>Review monthly hazardous materials management/fuel spill containment plan reports for compliance with measure</p> <p>Document dredging volumes in compliance with measure</p> | <p>Prior to construction</p> <p>During construction</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

**TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT**

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|---|--|---|---|--|
| Biological Resources (cont.) | | | | | |
| <ul style="list-style-type: none"> Cofferdams or silt fencing will be used to the extent feasible during construction and maintenance activities that could potentially result in substantial siltation of open water. For any work within aquatic or wetland habitats, such as Ponds 1 and 2 or the Cargill Channel, silt curtains will be installed to prevent suspended sediments from migrating out of the immediate work area, and dredging will be conducted on incoming tides to the extent feasible to further reduce the potential for sediment mobilization outside the Master Plan area. Dredging within aquatic or wetland habitats will be conducted with a closed clamshell-style dredge to reduce the amount of suspended sediment produced. Dredge volumes will be documented to ensure compliance with and adequate performance of these measures. | | | | | |
| <p>Mitigation Measure BIO-2e: Burrowing Owl Measures.</p> <p>The following measures will be implemented to avoid and minimize impacts on burrowing owls in the Master Plan area, particularly on the closed landfill and along the Sunnyvale West Channel but also including areas within the main plant fence line that may support ground squirrel burrows:</p> <ul style="list-style-type: none"> Preconstruction surveys for burrowing owls will be conducted by a qualified biologist prior to all construction activities that occur within 250 feet of potential burrowing owl habitat on the closed landfill or along the Sunnyvale West Channel, in conformance with CDFW protocols. This measure applies to construction activities inside of the main plant fence line only where ground squirrel burrows are present or for those activities located within 250 feet of suitable burrowing owl habitat on the closed landfill or Sunnyvale West Channel. The final survey will occur no more than 2 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading, or any similar activity within 250 feet of suitable habitat that could disturb nesting owls. If no burrowing owls are located during these surveys, no additional action would be warranted. However, if burrowing owls are located on or immediately adjacent to impact areas, the following measures would be implemented. If burrowing owls are present during the nonbreeding season (generally 1 September to 31 January), the City/contractor would maintain a 150-foot buffer zone, within which no new Master Plan-related activity would occur, around the occupied burrow(s) if feasible. However, this buffer distance would not apply to existing operations and maintenance activities in the main plant. A reduced buffer distance is acceptable during the nonbreeding season as long as construction avoids direct impacts on the burrow(s) used by the owls. During the breeding season (generally 1 February to 31 August), a 250-foot buffer, within which no new Master Plan-related activity would be permissible, would be maintained between Master Plan activities and occupied burrows. Owls present at burrows on the site after 1 February would be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area would remain in effect until 31 August, or based upon monitoring evidence, until young owls are foraging independently or until the nest is no longer active. In the unlikely event that an occupied burrowing owl burrow is within the construction footprint (e.g., on the bank of a levee), and the burrow cannot be avoided, the owl will be evicted from the burrow by a qualified biologist using one-way doors. The biologist will leave the one-way doors in place for at least 48 hours, checking them daily to ensure that they are functioning properly. If the biologist cannot be certain that the owl is outside the burrow (e.g., if the one-way doors were installed when the owl was inside the burrow and the owl cannot be detected outside later), then the burrow will be excavated by hand prior to being filled to ensure that no owl is trapped inside. Otherwise, the burrow will be backfilled after the owl has been evicted. No burrowing owls will be evicted from burrows during the nesting season unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). | <p>Contractor to prepare plans that incorporate preconstruction surveys, buffer zones, and relocation plan</p> <p>Contractor to identify qualified biologist to conduct preconstruction surveys</p> <p>Qualified biologist to establish buffer zones or conduct owl relocation, as needed</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Review survey report</p> <p>If burrowing owls present, inspect construction site to confirm buffer zones</p> | <p>Prior to construction</p> <p>During construction</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure BIO-2h: Nesting Bird Measures.</p> <p>The following measures will be implemented throughout the Master Plan area to minimize impacts on nesting San Francisco common yellowthroat, Alameda song sparrow, and other native bird species:</p> <ul style="list-style-type: none"> Nesting deterrence can be implemented to minimize the potential for nesting birds to constrain project activities or to be adversely affected by those activities. The most effective nesting deterrence in non-developed portions of the main plant is vegetation removal to remove nesting substrate. Vegetation that is to be affected by the project should be removed during the nonbreeding season (i.e., September 1 through January 31) if feasible. If necessary, removal of nest-starts (incomplete nests that do not yet contain eggs or young) by qualified biologists may occur during the breeding season. Such nest-start removal may begin early in the breeding season (e.g., February) and continue regularly until vegetation can be removed and construction commences. Some species, such as barn swallows or black phoebes, may establish nests on buildings or other structures. To deter birds from nesting on structures, netting or other deterrence devices may be installed to preclude birds from constructing nests. Such nesting deterrence should be implemented under the supervision of qualified biologists in order to prevent death or injury of birds as a result of improperly installed deterrence devices, and such devices will require regular maintenance to ensure that they are functioning properly. Prior to commencement of new activities (i.e., activities that are not currently ongoing in any given area) during the breeding season (February 1 through August 31), preconstruction surveys will be conducted by a qualified biologist no more than 7 days prior to the initiation of new disturbance in any given area to ensure that no active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code will be disturbed during Master Plan implementation. During this survey, the biologist will inspect all potential nesting habitats (e.g., trees, shrubs, buildings, and various substrates on the ground) in the project area for nests. This survey will include suitable nesting substrates both within and outside the main plant fence line. Surveys will be conducted within search radii corresponding to disturbance-free buffer zones described below for raptors (300 feet) and non-raptors (100 feet), including offsite areas adjacent to the Master Plan area (where such areas are accessible and are contained in the buffer zones). | <p>Contractor(s) to prepare construction plans that include schedule of vegetation removal, nest deterrence, preconstruction surveys, and buffer zones</p> <p>Contractor to identify qualified biologist to conduct nesting deterrence measures</p> <p>Contractor to remove vegetation within non-breeding season</p> <p>Biologist to implement nesting deterrence measures</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of measures in contract specifications and construction plans</p> | <p>Prior to construction</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|--|--|--|--|--|--|
| Biological Resources (cont.) | | | | | |
| <ul style="list-style-type: none"> If an active nest is found, a qualified biologist will determine the extent of a disturbance-free buffer zone to be established around the nest until nesting has been completed. Disturbance-free buffer zones are typically 300 feet for raptors and 100 feet for non-raptors, although factors such as existing disturbance and vegetation or structures that screen construction activities from a nest will be considered in determining the appropriate buffer. Nests will be considered active until surveys conducted by a qualified ornithologist confirm nesting is complete. However, construction within these radii may proceed if, based on monitoring of the birds behavior, a qualified biologist determines that such activities are not likely to result in the abandonment of the nest. Per CDFW recommendations, monitoring will be conducted as follows: <ul style="list-style-type: none"> A qualified biologist will monitor activity at each nest for three days prior to the onset of construction activities to develop a baseline of the normal behavior of the birds attending the nest. If the behavior observed at the nest is consistent on Days 1 and 2 of monitoring, Day 3 of monitoring may be skipped. A qualified biologist will monitor activity at each nest for 8 hours on the first day that construction occurs within the standard buffer (e.g., within 100 feet of a non-raptor nest). If the biologist determines that the birds' behavior is not adversely affected, Master Plan activities may continue. The biologist should continue to monitor the nests for 1 hour/day on any day when construction activities occur within the standard buffer around an active nest. If at any time the biologist determines that Master Plan activities within the standard buffer is adversely affecting the behavior of the birds such that the nest is in jeopardy of failing, construction activities should retreat to honor the standard buffer until the nest is no longer active (i.e., the young have fledged) | | | | | |
| <p>Mitigation Measure BIO-4a: Avoidance and Preservation of Trees.</p> <p>During detailed design of Master Plan activities, either within or outside the main plant fenceline, ordinance-sized trees will be avoided to the extent feasible. If it is determined during detailed design that impacts on some trees can be avoided, a construction-phase Tree Preservation Plan shall be prepared by a certified arborist prior to initiation of construction to describe how trees that will not be removed will be protected. The construction-phase Tree Preservation Plan shall include the following tree protection measures, which are based on guidelines established by the International Society for Arboriculture:</p> <ul style="list-style-type: none"> Establish an area surrounding individual trees or groups of trees to be protected during construction as defined by a circle concentric with each tree with a radius 1-1/2 times the diameter of the tree canopy drip line. This Tree Protection Zone is established to protect the tree trunk, canopy and root system from damage during construction activities and to ensure the long-term survival of the protected trees. The Tree Protection Zone shall: (1) ensure that no structures or buildings, that might restrict sunlight relative to the existing condition, will be constructed in proximity to the trees; and (2) that no improvements are constructed on the ground around the tree within the Tree Protection Zone, thus ensuring that there is sufficient undisturbed native soil surrounding the tree to provide adequate moisture, soil nutrients and oxygen for healthy root growth. Protect tree root systems from damage caused by (a) runoff or spillage of noxious materials while mixing, placing, or storing construction materials and (b) ponding, eroding, or excessive wetting caused by dewatering operations through use of the following measures during excavation and grading: <ul style="list-style-type: none"> Excavation: Do not trench inside tree protection zones. Hand excavate under or around tree roots to a depth of 3 feet. Do not cut main lateral tree roots or taproots. Protect exposed roots from drying out before placing permanent backfill. Grading: Maintain existing grades within tree protection zones. Where existing grade is 2 inches or less below elevation of finish grade, backfill with topsoil or native site soil. Place fill soil in a single uncompacted layer and hand grade to required finish elevation. Apply 6-inch average thickness of wood bark mulch inside tree protection zones. Keep mulch 6 inches from tree trunks. Provide 48-inch tall orange plastic construction fencing fastened to steel T-posts, minimum six (6) feet in length, using heavyweight plastic ratchet ties. Install fence along edges of tree protection zones before materials or equipment are brought on site and construction operations begin. Maintain fence in place until construction operations are complete and equipment has been removed from site. Provide temporary irrigation to all trees in protection zones that may have important root systems impacted by construction. | <p>Department of Community Development to determine whether ordinance applies to trees in the Master Plan area</p> <p>Contractor(s) to prepare construction plans maximizing avoidance of trees</p> <p>City or contractor to retain a qualified arborist to prepare Tree Preservation Plan</p> <p>Contractor(s) to implement Tree Preservation Plan measures</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated arborist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan measures in construction plans</p> | <p>Prior to construction within Master Plan area</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure BIO-4b: Master Plan Compensation for Impacts on Protected Trees.</p> <p>At the discretion of the Director of Community Development, the City will either replace any removed protected trees at a 1:1 ratio or pay an in-lieu fee into a fund.</p> | <p>Contractor or City to identify trees to be removed</p> <p>Qualified arborist to identify "protected" trees to be removed</p> <p>City to replace protected trees or pay in-lieu fee</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review qualifications of Contractor-nominated arborist and either approve or recommend identification of additional candidates</p> <p>Confirm planting of replacement trees or payment of in-lieu fee</p> | <p>Prior to construction that would remove trees</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

**TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT**

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|--|--|--|---|--|
| Hazards and Hazardous Materials | | | | | |
| <p>Mitigation Measure HAZ-2a: Hazardous Building Materials Abatement.</p> <p>The City shall ensure that, prior to demolition, the building is surveyed for hazardous building materials including, electrical equipment containing polychlorinated biphenyl (PCBs), fluorescent light ballasts containing PCBs or bis(2-ethylhexyl) phthalate (DEHP), and fluorescent light tubes containing mercury vapors. These materials shall be removed and properly disposed of prior to the start of demolition or renovation. Light ballasts that are proposed to be removed during renovation shall be evaluated for the presence of PCBs and in the case where the presence of PCBs in the light ballast cannot be verified, they shall be assumed to contain PCBs, and handled and disposed of as such, according to applicable laws and regulations. Any other hazardous building materials identified either before or during demolition or renovation shall be abated according to federal, state, and local laws and regulations.</p> | <p>City or contractor(s) to conduct survey for hazardous building materials</p> <p>Contractor to remove and properly dispose of materials as described</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of requirements in contract specifications</p> <p>Review survey results</p> <p>Confirm handling and disposal performed in compliance with laws and regulations</p> | <p>Prior to demolition</p> <p>During demolition</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure HAZ-2b: Health and Safety Plan.</p> <p>For each Master Plan improvement involving ground disturbing activities, the City or its contractor will prepare a Health and Safety Plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Each Plan will be based on all activities proposed as part of the specific project and include designated personnel responsible for implementation of the Plan. The City will require each contractor for each individual construction contract to implement a Plan. Each Plan will include all required measures to protect construction workers and the general public potentially exposed to hazardous materials or wastes by including engineering controls, monitoring, and security measures to prevent dangerous levels of exposure and unauthorized entry to the construction area, and to reduce hazards outside of any construction area. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. Compliance with the Health and Safety Plan will not be construed as approval of the adequacy of the contractor's health and safety professional's qualifications or any safety measure taken in or near the construction site. The contractor will be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.</p> | <p>Contractor(s) to prepare Health and Safety Plan and incorporate Plan in construction plans</p> <p>Contractor(s) to implement Plan</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review each Health and Safety Plan</p> <p>Verify inclusion of Plan in contract specifications for each individual construction contract</p> | <p>Prior to ground disturbance</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure HAZ-2c: Soil and Groundwater Management Plan.</p> <p>For any elements involving ground disturbing activities, the City will require the construction contractor to implement a Soil and Groundwater Management Plan, subject to review by the City that specifies the method for handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities. The plan will include all necessary procedures to ensure that any excavated materials and fluids from throughout the Master Plan area generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan will include the following information.</p> <ul style="list-style-type: none"> • Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. • Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils. • Detailed control measures for use and storage of hazardous materials to prevent the release of pollutants to the environment, and emergency procedures for the containment and cleanup of accidental releases of hazardous materials to minimize the impacts of any such release. These procedures shall also include reporting requirements in the event of a reportable spill or other emergency incident. At a minimum, the City or its contractor shall notify applicable agencies in accordance with guidance from the California Office of Emergency Services as well as the Santa Clara County Environmental Health Department. • Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method used to analyze groundwater for hazardous materials likely to be encountered at specific locations and the appropriate treatment and/or disposal methods. | <p>Contractor to prepare Soil and Groundwater Management Plan</p> <p>Contractor to implement Plan</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Review Soil and Groundwater Management Plan</p> <p>Verify inclusion of Plan in contract specifications</p> | <p>Prior to ground disturbance</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| Cultural Resources | | | | | |
| <p>Mitigation Measure CUL-2: Unanticipated Discovery of Archaeological Resources.</p> <p>If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet will halt and the City of Sunnyvale will be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include deposits of metal, glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation will be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist will prepare and implement a detailed treatment plan in consultation with City of Sunnyvale and, for prehistoric resources, the appropriate Native American representative. Treatment of unique archaeological resources will follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan will include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.</p> | <p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p> <p>Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery</p> <p>Archaeologist, City, and contractor to implement mitigation as determined by archaeologist</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of requirements in contract specifications</p> | <p>Prior to ground disturbance</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

TABLE 5-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – CLEANWATER CENTER PROJECT

| Mitigation Measures Adopted as Conditions of Approval | Implementation Procedures | Monitoring Responsibility | Monitoring and Reporting Action | Monitoring Schedule | Verification of Compliance |
|---|--|--|--|------------------------------------|--|
| Cultural Resources (cont.) | | | | | |
| <p>Mitigation Measure CUL-3: Unanticipated Discovery of Paleontological Resources.</p> <p>If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the nature and importance of the find and, if necessary, develop appropriate treatment measures in conformance with Society of Vertebrate Paleontology standards, and in consultation with the City of Sunnyvale.</p> | <p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of requirements in contract specifications</p> | <p>Prior to ground disturbance</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |
| <p>Mitigation Measure CUL-4: Unanticipated Discovery of Human Remains.</p> <p>In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find will cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The NAHC will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the City of Sunnyvale for the appropriate means of treating the human remains and any grave goods.</p> | <p>Contractor(s) shall monitor worker activities</p> <p>Contractor(s) shall halt work and notify the County Coroner, if necessary. If appropriate, Coroner shall notify NAHC. NAHC shall notify Most Likely Descendant (MLD).</p> | <p>City of Sunnyvale Public Works Department</p> | <p>Verify inclusion of requirements in contract specifications</p> | <p>Prior to ground disturbance</p> | <p><i>Verified by:</i></p> <p><i>Date:</i></p> |

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**TABLE 5-2
ADOPTED MITIGATION MEASURES THAT DO NOT APPLY TO THE PROJECT**

| Adopted Mitigation Measures | Reason Measure Does Not Apply to Administration and Laboratory Building Project |
|---|--|
| Mitigation Measure NOI-1: Develop and Implement Construction Noise Logistics Plan. | Does not apply due to construction hours |
| Mitigation Measure AQ-2b: Implement BAAQMD Additional Construction Mitigation Measures | Does not apply due to nature of project activities. |
| Mitigation Measure BIO-1b: Prevent the Introduction and Spread of Non-native, Invasive Species | Does not apply due to location. |
| Mitigation Measure BIO-2c: Special-Status Fish Measures. | Does not apply due to location. |
| Mitigation Measure BIO-2d: Western Pond Turtle Measures | Does not apply due to location. |
| Mitigation Measure BIO-2f: California Ridgway's Rail and California Black Rail Measures. | Does not apply due to location. |
| Mitigation Measure BIO-2g: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Measures. | Does not apply due to location. |
| Mitigation Measure BIO-3a: Avoidance of Open Water and Wetland Habitats. | Does not apply due to location. |
| Mitigation Measure BIO-3b: Compensatory Mitigation for Aquatic and Wetland Habitats. | Does not apply due to nature of project activities. |
| Mitigation Measure HYD-2: Hydraulic Analysis of Levee Widening. | Does not apply due to nature of project activities. |
| Mitigation Measure HYD-3a: Flood Hazard Assessment and Design For Diurnal Equalization Tanks, Pump Station, and Pipeline. | Does not apply due to nature of project activities. |
| Mitigation Measure HYD-3b: Restoration Plan for Ponds 1 and 2. | Does not apply due to nature of project activities. |
| Mitigation Measure HYD-3c: Flood Protection Prior to Levee Breaching. | Does not apply due to nature of project activities. |
| Mitigation Measure WQ-4: Water Quality Evaluation and Control Plan for Oxidation Pond Breaching and Restoration. | Does not apply due to nature of project activities. |
| Mitigation Measure CUL-1. Assessment of Effects to Cargill Channel. | Does not apply due to nature of project and location. |
| Mitigation Measure AES-1: Levee Plantings and Visual Screening. | Does not apply due to nature of project and location. |
| Mitigation Measure GI-1: Update Projections. | Does not apply due to nature of project activities. |

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APPENDIX A

Air Quality and Greenhouse Gas Supporting Information

Sunnyvale Cleanwater Center - Construction Data

Construction Schedule

| Construction Phase | Start Date | End Date | Days/Week | Workdays |
|-----------------------|------------|------------|-----------|----------|
| Demolition | 3/4/2027 | 3/31/2027 | 5 | 20 |
| Site Preparation | 1/4/2027 | 3/27/2027 | 5 | 60 |
| Grading | 4/1/2027 | 11/15/2027 | 5 | 163 |
| Building Construction | 11/16/2027 | 3/31/2029 | 5 | 359 |
| Paving | 5/1/2028 | 9/30/2028 | 5 | 110 |
| Architectural Coating | 3/19/2029 | 3/31/2029 | 5 | 10 |

Construction Equipment (CalEEMod Default Equipment)

| Mobilization, Demolition, Clear and Grub | | | | |
|---|---------------------|------------------------|-------------------|---------------------------------|
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Concrete/Industrial Saws | 1 | 20 | 8 | 33 |
| Rubber Tired Dozers | 1 | 20 | 8 | 367 |
| Tractors/Loaders/Backhoes | 3 | 20 | 8 | 84 |
| Mobilization, Clear and Grub | | | | |
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Graders | 1 | 60 | 8 | 188 |
| Scrapers | 1 | 60 | 8 | 105 |
| Tractors/Loaders/Backhoes | 1 | 60 | 7 | 173 |
| Excavation, Foundation | | | | |
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Graders | 1 | 163 | 8 | 148 |
| Rubber Tired Dozers | 1 | 163 | 8 | 367 |
| Tractors/Loaders/Backhoes | 2 | 163 | 7 | 84 |
| Construct Cleanwater Center | | | | |
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Cranes | 1 | 359 | 8 | 367 |
| Forklifts | 2 | 359 | 7 | 82 |
| Generator Sets | 1 | 359 | 8 | 14 |
| Tractors/Loaders/Backhoes | 1 | 359 | 6 | 84 |
| Welders | 3 | 359 | 8 | 46 |
| Landscaping, Utility Connections, Paving, Fencing | | | | |
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Cement and Mortar Mixers | 1 | 110 | 8 | 10 |
| Pavers | 1 | 110 | 8 | 81 |
| Paving Equipment | 1 | 110 | 8 | 89 |
| Rollers | 2 | 110 | 8 | 36 |
| Tractors/Loaders/Backhoes | 1 | 110 | 8 | 84 |
| Architectural Coating | | | | |
| Project Construction Equipment | Number of Equipment | Workdays used in Phase | Hours per Workday | Assumed Average horsepower (hp) |
| Air Compressors | 1 | 10 | 6 | 37 |

Construction Vehicle Trips (CalEEMod Default Trips for Worker and Vendor)

| Construction Phase | Worker One-way Trips | Vendor One-way Trips | Hauling trips/phase |
|---|----------------------|----------------------|---------------------|
| Mobilization, Demolition, Clear and Grub | 13 | 0 | 60 |
| Mobilization, Clear and Grub | 7.5 | 0 | 0 |
| Excavation, Foundation | 10 | 0 | 30 |
| Construct Cleanwater Center and Utility Connections | 9.9 | 5.1 | 0 |
| Paving | 15 | 0 | 2 |
| Architectural Coating | 2 | 0 | 0 |

Construction Vehicle Trips (Hauling)

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Material Demolished (Cubic yards) converted 6,600 building square feet | Associated Truck Trips | Total Truck Trips Per Phase | One Way Trips Per Phase |
|--|---------------------------------|---------------------------------|--|------------------------|-----------------------------|-------------------------|
| Mobilization, Demolition, Clear and Grub | 0 | 10 | 2933 | 210 | 11 | 22 |
| Excavation, Foundation | 0 | 800 | 0 | 57 | 0 | 2 |
| Paving | 0 | 3942 | 0 | 282 | 3 | 6 |

EMISSIONS SUMMARY - Sunnyvale Cleanwater Center

Source: CalEEMod - Sunnyvale Cleanwater Center v2 | 02/27/2026

UNCONTROLLED CONSTRUCTION EMISSIONS - Criteria Air Pollutants

| Year | No. of Construction Wokdays | Tons over Construction Period | | | | Average Pounds per day | | | |
|-------|-----------------------------|-------------------------------|------|---------------|----------------|------------------------|-------|---------------|----------------|
| | | ROG | NOx | Exhaust PM-10 | Exhaust PM-2.5 | ROG | NOx | Exhaust PM-10 | Exhaust PM-2.5 |
| 2027 | 257 | 0.18 | 1.59 | 0.07 | 0.06 | 1.41 | 12.36 | 0.51 | 0.47 |
| 2028 | 260 | 0.18 | 1.56 | 0.05 | 0.04 | 1.41 | 12.03 | 0.38 | 0.35 |
| 2029 | 65 | 0.21 | 0.30 | 0.01 | 0.01 | 6.35 | 9.08 | 0.26 | 0.24 |
| TOTAL | | 0.57 | 3.45 | 0.12 | 0.11 | 6.35 | 12.36 | 0.51 | 0.47 |

OPERATIONAL EMISSIONS - Criteria Air Pollutants

| Source | Tons per year | | | | Pounds per day | | | |
|--------|---------------|------|-------------|--------------|----------------|------|-------------|--------------|
| | ROG | NOx | Total PM-10 | Total PM-2.5 | ROG | NOx | Total PM-10 | Total PM-2.5 |
| Mobile | 0.04 | 0.04 | 0.12 | 0.03 | 0.21 | 0.21 | 0.64 | 0.16 |
| Area | 0.16 | 0.00 | 0.00 | 0.00 | 0.87 | 0.01 | 0.00 | 0.00 |
| TOTAL | 0.20 | 0.04 | 0.12 | 0.03 | 1.08 | 0.21 | 0.64 | 0.16 |

CONSTRUCTION EMISSIONS - GHG as metric tons

| Construction Year | CO ₂ e |
|-------------------|-------------------|
| 2027 | 348.77 |
| 2028 | 376.41 |
| 2029 | 71.09 |
| Total | 796.3 |

OPERATIONAL EMISSIONS - GHG as metric tons/year

| Operational Source | CO ₂ e |
|-------------------------------------|-------------------|
| Area | 0 |
| Energy Use | 87 |
| Mobile | 104 |
| Solid waste | 9 |
| Water & Wastewater | 11 |
| Refrigerants | 0 |
| Total Project Operational Emissions | 212 |

Operational GHG emissions from electricity

| | CO ₂ | CH ₄ | N ₂ O |
|---|-----------------|-----------------|------------------|
| Emission Factor ¹ (lb/MWh) | 203.983 | 0.033 | 0.004 |
| Project annual energy demand (MWh/year) ² | 720.0809612 | 720.08096 | 720.0809612 |
| Conversion from lbs to metric tons | 0.000453592 | 0.0004536 | 0.000453592 |
| GHG emissions (metric tons/year) | 66.62553193 | 0.0107786 | 0.001306492 |
| GWP ³ | 1 | 25 | 298 |
| GHG emissions as CO ₂ e (metric tons/year) | 66.62553193 | 0.2694639 | 0.389334591 |
| Total GHG emissions as CO ₂ e (metric tons/year) | 67.28433047 | | |

NOTES:

1. Source for GHG emission factors: Table G-3: Electric Utility Greenhouse Gas Emission Factors, https://www.caleemod.com/documents/user-guide/08_Appendix%20G_v2022.1.1.34.xlsx

2. Includes the direct increase in electricity demand of the project

3. Source for GWP: <https://www.arb.ca.gov/cc/inventory/background/gwp.htm>

Additional Electricity Use from No Natural Gas

| Land Use | Natural Gas Use from CalEEMod (kBtu/yr) | NG Converted to kWh/yr | CalEEMod GHG Intensity Factor (lb CO ₂ e/MWh) | CO ₂ e (MT/yr) |
|-------------------------|---|------------------------|--|---------------------------|
| General Office Building | 732,221.00 | 214.6 | 203.983 | 19.9 |
| Total | 732,221.00 | 214.6 | 203.983 | 19.9 |

Sunnyvale Cleanwater Center v2 Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year
 - 2.2.1. Total Construction Emissions by Year, Unmitigated
 - 2.2.2. Onsite Construction Emissions by Year, Unmitigated
 - 2.2.3. Offsite Construction Emissions by Year, Unmitigated
 - 2.3. Operations Emissions Compared Against Thresholds
 - 2.4. Operations Emissions by Sector, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Mobilization, Demolition, Clear and Grub (2027)
 - 3.1.1. Onsite - Unmitigated

3.1.2. Offsite - Unmitigated

3.2. Mobilization, Clear and Grub (2027)

3.2.1. Onsite - Unmitigated

3.2.2. Offsite - Unmitigated

3.3. Excavation, Foundation (2027)

3.3.1. Onsite - Unmitigated

3.3.2. Offsite - Unmitigated

3.4. Construct Cleanwater Center and Utility Connections (2027)

3.4.1. Onsite - Unmitigated

3.4.2. Offsite - Unmitigated

3.5. Construct Cleanwater Center and Utility Connections (2028)

3.5.1. Onsite - Unmitigated

3.5.2. Offsite - Unmitigated

3.6. Construct Cleanwater Center and Utility Connections (2029)

3.6.1. Onsite - Unmitigated

3.6.2. Offsite - Unmitigated

3.7. Landscaping, utility Connections, Paving, Fencing (2028)

3.7.1. Onsite - Unmitigated

3.7.2. Offsite - Unmitigated

3.8. Architectural Coating (2029)

3.8.1. Onsite - Unmitigated

3.8.2. Offsite - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.4. Construction

8.4.1. Construction Phases

8.4.4. Dust from Material Movement

8.4.6. Trips and VMT

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.3. Energy Usage

1. Basic Project Information

1.1. Basic Project Information

| Data Field | Value |
|-----------------------------|--|
| Project Name | Sunnyvale Cleanwater Center v2 |
| Construction Start Date | 1/1/2027 |
| Operational Year | 2029 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70000 |
| Precipitation (days) | 28.2000 |
| Location | 37.41867139514217, -122.01617620849018 |
| County | Santa Clara |
| City | Sunnyvale |
| Air District | Bay Area AQMD |
| Air Basin | San Francisco Bay Area |
| TAZ | 1701 |
| EDFZ | 1 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.38 |

1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|-------------------------|---------|----------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|
| General Office Building | 30.8300 | 1000sqft | 0.70776 | 30,830.0 | 3,083.00 | 0.00000 | — | — |

| | | | | | | | | |
|-------------|---------|----------|---------|---------|---------|---------|---|---|
| Parking Lot | 77.0000 | 1000sqft | 1.76768 | 0.00000 | 0.00000 | 0.00000 | — | — |
|-------------|---------|----------|---------|---------|---------|---------|---|---|

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.19604 | 1.81583 | 15.4423 | 21.0381 | 0.03864 | 0.54073 | 2.88207 | 3.42280 | 0.49762 | 1.36519 | 1.86281 | — | 4,185.03 | 4,185.03 | 0.18008 | 0.11331 | 1.64064 | 4,224.94 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 35.7194 | 35.4790 | 23.4950 | 26.7968 | 0.05921 | 0.87871 | 2.88207 | 3.42280 | 0.80997 | 1.36519 | 1.86281 | — | 6,889.94 | 6,889.94 | 0.33713 | 0.28839 | 0.09279 | 6,984.40 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.21462 | 1.13099 | 8.69941 | 11.2916 | 0.02163 | 0.36139 | 1.45573 | 1.81711 | 0.33264 | 0.63580 | 0.96843 | — | 2,255.21 | 2,255.21 | 0.09481 | 0.05262 | 0.30372 | 2,273.56 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.22167 | 0.20641 | 1.58764 | 2.06073 | 0.00395 | 0.06595 | 0.26567 | 0.33162 | 0.06071 | 0.11603 | 0.17674 | — | 373.375 | 373.375 | 0.01570 | 0.00871 | 0.05028 | 376.414 |

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|----------|----------|---------|---------|---------|----------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 1.67923 | 1.40454 | 12.3685 | 14.3075 | 0.02359 | 0.54073 | 2.88207 | 3.42280 | 0.49762 | 1.36519 | 1.86281 | — | 2,675.19 | 2,675.19 | 0.11199 | 0.04486 | 0.54561 | 2,691.90 |
| 2028 | 2.19604 | 1.81583 | 15.4423 | 21.0381 | 0.03864 | 0.49384 | 0.36259 | 0.85643 | 0.45397 | 0.09079 | 0.54477 | — | 4,185.03 | 4,185.03 | 0.18008 | 0.11331 | 1.64064 | 4,224.94 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 3.10450 | 2.51933 | 23.4950 | 26.7968 | 0.05921 | 0.87871 | 2.88207 | 3.42280 | 0.80997 | 1.36519 | 1.86281 | — | 6,889.94 | 6,889.94 | 0.33713 | 0.28839 | 0.09279 | 6,984.40 |
| 2028 | 1.33380 | 1.10810 | 9.41290 | 12.0344 | 0.02406 | 0.28658 | 0.11827 | 0.40485 | 0.26287 | 0.02921 | 0.29209 | — | 2,404.68 | 2,404.68 | 0.09752 | 0.03977 | 0.01308 | 2,418.98 |
| 2029 | 35.7194 | 35.4790 | 9.85881 | 13.1185 | 0.02578 | 0.27385 | 0.13480 | 0.40865 | 0.25115 | 0.03309 | 0.28424 | — | 2,547.77 | 2,547.77 | 0.10301 | 0.04139 | 0.01277 | 2,562.69 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 1.18895 | 0.99005 | 8.69941 | 10.1269 | 0.01870 | 0.36139 | 1.45573 | 1.81711 | 0.33264 | 0.63580 | 0.96843 | — | 2,091.52 | 2,091.52 | 0.08964 | 0.04224 | 0.22256 | 2,106.57 |
| 2028 | 1.21462 | 1.00594 | 8.56607 | 11.2916 | 0.02163 | 0.26773 | 0.15569 | 0.42342 | 0.24587 | 0.03882 | 0.28469 | — | 2,255.21 | 2,255.21 | 0.09481 | 0.05262 | 0.30372 | 2,273.56 |
| 2029 | 1.16999 | 1.13099 | 1.61645 | 2.13608 | 0.00428 | 0.04632 | 0.02092 | 0.06724 | 0.04248 | 0.00516 | 0.04764 | — | 426.809 | 426.809 | 0.01729 | 0.00703 | 0.03462 | 429.372 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.21698 | 0.18068 | 1.58764 | 1.84815 | 0.00341 | 0.06595 | 0.26567 | 0.33162 | 0.06071 | 0.11603 | 0.17674 | — | 346.275 | 346.275 | 0.01484 | 0.00699 | 0.03685 | 348.767 |
| 2028 | 0.22167 | 0.18358 | 1.56331 | 2.06073 | 0.00395 | 0.04886 | 0.02841 | 0.07727 | 0.04487 | 0.00708 | 0.05196 | — | 373.375 | 373.375 | 0.01570 | 0.00871 | 0.05028 | 376.414 |
| 2029 | 0.21352 | 0.20641 | 0.29500 | 0.38983 | 0.00078 | 0.00845 | 0.00382 | 0.01227 | 0.00775 | 0.00094 | 0.00869 | — | 70.6631 | 70.6631 | 0.00286 | 0.00116 | 0.00573 | 71.0874 |

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 1.63491 | 1.37378 | 12.1813 | 13.8677 | 0.02267 | 0.53897 | 2.76232 | 3.30129 | 0.49585 | 1.33566 | 1.83152 | — | 2,455.46 | 2,455.46 | 0.09960 | 0.01992 | 0.00000 | 2,463.88 |
| 2028 | 2.06687 | 1.73342 | 14.7631 | 19.8492 | 0.03493 | 0.48668 | 0.00081 | 0.48749 | 0.44775 | 0.00012 | 0.44787 | — | 3,445.20 | 3,445.20 | 0.13975 | 0.02795 | 0.00000 | 3,457.02 |

| | | | | | | | | | | | | | | | | | | |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|----------|----------|---------|---------|---------|----------|
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 2.89311 | 2.42824 | 21.5070 | 25.2035 | 0.04901 | 0.85928 | 2.76232 | 3.30129 | 0.79054 | 1.33566 | 1.83152 | — | 5,209.69 | 5,209.69 | 0.21133 | 0.04227 | 0.00000 | 5,227.57 |
| 2028 | 1.29438 | 1.07850 | 9.22917 | 11.6712 | 0.02312 | 0.28471 | 0.00000 | 0.28471 | 0.26194 | 0.00000 | 0.26194 | — | 2,201.41 | 2,201.41 | 0.08930 | 0.01786 | 0.00000 | 2,208.97 |
| 2029 | 35.6755 | 35.4458 | 9.68088 | 12.7184 | 0.02484 | 0.27197 | 0.00000 | 0.27197 | 0.25022 | 0.00000 | 0.25022 | — | 2,334.55 | 2,334.55 | 0.09470 | 0.01894 | 0.00000 | 2,342.57 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 1.15188 | 0.96688 | 8.48564 | 9.80756 | 0.01764 | 0.35936 | 1.35364 | 1.71301 | 0.33061 | 0.61022 | 0.94084 | — | 1,877.76 | 1,877.76 | 0.07617 | 0.01523 | 0.00000 | 1,884.21 |
| 2028 | 1.15990 | 0.96984 | 8.27808 | 10.8240 | 0.02012 | 0.26479 | 0.00025 | 0.26504 | 0.24361 | 0.00004 | 0.24364 | — | 1,951.59 | 1,951.59 | 0.07916 | 0.01583 | 0.00000 | 1,958.28 |
| 2029 | 1.16311 | 1.12585 | 1.58693 | 2.07462 | 0.00412 | 0.04599 | 0.00000 | 0.04599 | 0.04231 | 0.00000 | 0.04231 | — | 391.317 | 391.317 | 0.01587 | 0.00317 | 0.00000 | 392.660 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.21022 | 0.17646 | 1.54863 | 1.78988 | 0.00322 | 0.06558 | 0.24704 | 0.31262 | 0.06034 | 0.11137 | 0.17170 | — | 310.885 | 310.885 | 0.01261 | 0.00252 | 0.00000 | 311.952 |
| 2028 | 0.21168 | 0.17700 | 1.51075 | 1.97538 | 0.00367 | 0.04832 | 0.00004 | 0.04837 | 0.04446 | 0.00001 | 0.04447 | — | 323.107 | 323.107 | 0.01311 | 0.00262 | 0.00000 | 324.216 |
| 2029 | 0.21227 | 0.20547 | 0.28962 | 0.37862 | 0.00075 | 0.00839 | 0.00000 | 0.00839 | 0.00772 | 0.00000 | 0.00772 | — | 64.7870 | 64.7870 | 0.00263 | 0.00053 | 0.00000 | 65.0094 |

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.04431 | 0.03075 | 0.18717 | 0.43984 | 0.00093 | 0.00176 | 0.11974 | 0.12151 | 0.00176 | 0.02953 | 0.03129 | — | 219.734 | 219.734 | 0.01239 | 0.02493 | 0.54561 | 228.020 |
| 2028 | 0.12917 | 0.08241 | 0.67928 | 1.18892 | 0.00371 | 0.00716 | 0.36177 | 0.36894 | 0.00623 | 0.09067 | 0.09690 | — | 739.826 | 739.826 | 0.04032 | 0.08536 | 1.64064 | 767.912 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.21140 | 0.09109 | 1.98805 | 1.59327 | 0.01020 | 0.01943 | 0.59036 | 0.60979 | 0.01943 | 0.15447 | 0.17390 | — | 1,680.25 | 1,680.25 | 0.12580 | 0.24612 | 0.09279 | 1,756.83 |
| 2028 | 0.03942 | 0.02960 | 0.18373 | 0.36323 | 0.00094 | 0.00187 | 0.11827 | 0.12014 | 0.00094 | 0.02921 | 0.03015 | — | 203.267 | 203.267 | 0.00822 | 0.02191 | 0.01308 | 210.015 |
| 2029 | 0.04389 | 0.03316 | 0.17793 | 0.40010 | 0.00094 | 0.00187 | 0.13480 | 0.13667 | 0.00094 | 0.03309 | 0.03402 | — | 213.217 | 213.217 | 0.00831 | 0.02245 | 0.01277 | 220.128 |

| | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.03708 | 0.02317 | 0.21377 | 0.31929 | 0.00106 | 0.00202 | 0.10208 | 0.10411 | 0.00202 | 0.02557 | 0.02760 | — | 213.757 | 213.757 | 0.01347 | 0.02700 | 0.22256 | 222.363 |
| 2028 | 0.05473 | 0.03610 | 0.28799 | 0.46765 | 0.00151 | 0.00294 | 0.15545 | 0.15838 | 0.00226 | 0.03878 | 0.04105 | — | 303.621 | 303.621 | 0.01565 | 0.03679 | 0.30372 | 315.279 |
| 2029 | 0.00688 | 0.00513 | 0.02952 | 0.06146 | 0.00016 | 0.00033 | 0.02092 | 0.02125 | 0.00016 | 0.00516 | 0.00532 | — | 35.4920 | 35.4920 | 0.00142 | 0.00386 | 0.03462 | 36.7116 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 0.00677 | 0.00423 | 0.03901 | 0.05827 | 0.00019 | 0.00037 | 0.01863 | 0.01900 | 0.00037 | 0.00467 | 0.00504 | — | 35.3900 | 35.3900 | 0.00223 | 0.00447 | 0.03685 | 36.8148 |
| 2028 | 0.00999 | 0.00659 | 0.05256 | 0.08535 | 0.00028 | 0.00054 | 0.02837 | 0.02890 | 0.00041 | 0.00708 | 0.00749 | — | 50.2679 | 50.2679 | 0.00259 | 0.00609 | 0.05028 | 52.1980 |
| 2029 | 0.00126 | 0.00094 | 0.00539 | 0.01122 | 0.00003 | 0.00006 | 0.00382 | 0.00388 | 0.00003 | 0.00094 | 0.00097 | — | 5.87611 | 5.87611 | 0.00023 | 0.00064 | 0.00573 | 6.07802 |

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.27687 | 1.23344 | 0.22611 | 4.02825 | 0.00748 | 0.00642 | 0.74130 | 0.74772 | 0.00557 | 0.18792 | 0.19349 | 25.9525 | 1,181.29 | 1,207.24 | 2.71319 | 0.05990 | 2.05592 | 1,294.98 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.02898 | 1.00331 | 0.25141 | 2.40177 | 0.00695 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | 25.9525 | 1,130.29 | 1,156.24 | 2.71516 | 0.06229 | 0.12634 | 1,242.81 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.10928 | 1.07819 | 0.21168 | 2.72641 | 0.00614 | 0.00469 | 0.63366 | 0.63835 | 0.00417 | 0.16067 | 0.16484 | 25.9525 | 1,046.87 | 1,072.82 | 2.71107 | 0.05778 | 0.81963 | 1,158.63 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.20244 | 0.19677 | 0.03863 | 0.49757 | 0.00112 | 0.00086 | 0.11564 | 0.11650 | 0.00076 | 0.02932 | 0.03008 | 4.29673 | 173.321 | 177.618 | 0.44885 | 0.00957 | 0.13570 | 191.825 |

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.27837 | 0.25334 | 0.21483 | 2.68738 | 0.00740 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 753.434 | 753.434 | 0.02356 | 0.02599 | 1.98094 | 763.748 |
| Area | 0.99850 | 0.98010 | 0.01128 | 1.34087 | 0.00008 | 0.00238 | — | 0.00238 | 0.00180 | — | 0.00180 | — | 5.51384 | 5.51384 | 0.00023 | 0.00005 | — | 5.53372 |
| Energy | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 402.423 | 402.423 | 0.06510 | 0.00789 | — | 406.402 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Total | 1.27687 | 1.23344 | 0.22611 | 4.02825 | 0.00748 | 0.00642 | 0.74130 | 0.74772 | 0.00557 | 0.18792 | 0.19349 | 25.9525 | 1,181.29 | 1,207.24 | 2.71319 | 0.05990 | 2.05592 | 1,294.98 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.26918 | 0.24351 | 0.25141 | 2.40177 | 0.00695 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 707.944 | 707.944 | 0.02576 | 0.02843 | 0.05136 | 717.112 |
| Area | 0.75980 | 0.75980 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 402.423 | 402.423 | 0.06510 | 0.00789 | — | 406.402 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Total | 1.02898 | 1.00331 | 0.25141 | 2.40177 | 0.00695 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | 25.9525 | 1,130.29 | 1,156.24 | 2.71516 | 0.06229 | 0.12634 | 1,242.81 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.23177 | 0.20975 | 0.20612 | 2.06516 | 0.00610 | 0.00351 | 0.63366 | 0.63717 | 0.00328 | 0.16067 | 0.16396 | — | 621.805 | 621.805 | 0.02155 | 0.02389 | 0.74466 | 630.208 |
| Area | 0.87751 | 0.86844 | 0.00556 | 0.66125 | 0.00004 | 0.00117 | — | 0.00117 | 0.00089 | — | 0.00089 | — | 2.71916 | 2.71916 | 0.00011 | 0.00002 | — | 2.72896 |
| Energy | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 402.423 | 402.423 | 0.06510 | 0.00789 | — | 406.402 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Total | 1.10928 | 1.07819 | 0.21168 | 2.72641 | 0.00614 | 0.00469 | 0.63366 | 0.63835 | 0.00417 | 0.16067 | 0.16484 | 25.9525 | 1,046.87 | 1,072.82 | 2.71107 | 0.05778 | 0.81963 | 1,158.63 |

| | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------|---------|---------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.04230 | 0.03828 | 0.03762 | 0.37689 | 0.00111 | 0.00064 | 0.11564 | 0.11628 | 0.00060 | 0.02932 | 0.02992 | — | 102.947 | 102.947 | 0.00357 | 0.00396 | 0.12329 | 104.338 |
| Area | 0.16015 | 0.15849 | 0.00102 | 0.12068 | 0.00001 | 0.00021 | — | 0.00021 | 0.00016 | — | 0.00016 | — | 0.45019 | 0.45019 | 0.00002 | < 0.000005 | — | 0.45181 |
| Energy | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 66.6257 | 66.6257 | 0.01078 | 0.00131 | — | 67.2845 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 1.73841 | 3.29824 | 5.03665 | 0.17879 | 0.00430 | — | 10.7877 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 2.55832 | 0.00000 | 2.55832 | 0.25569 | 0.00000 | — | 8.95070 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.01241 | 0.01241 |
| Total | 0.20244 | 0.19677 | 0.03863 | 0.49757 | 0.00112 | 0.00086 | 0.11564 | 0.11650 | 0.00076 | 0.02932 | 0.03008 | 4.29673 | 173.321 | 177.618 | 0.44885 | 0.00957 | 0.13570 | 191.825 |

3. Construction Emissions Details

3.1. Mobilization, Demolition, Clear and Grub (2027)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.60361 | 1.34471 | 12.4325 | 14.4354 | 0.02393 | 0.47032 | — | 0.47032 | 0.43270 | — | 0.43270 | — | 2,493.82 | 2,493.82 | 0.10116 | 0.02023 | — | 2,502.37 |
| Demolition | — | — | — | — | — | — | 0.32989 | 0.32989 | — | 0.04995 | 0.04995 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08787 | 0.07368 | 0.68123 | 0.79098 | 0.00131 | 0.02577 | — | 0.02577 | 0.02371 | — | 0.02371 | — | 136.647 | 136.647 | 0.00554 | 0.00111 | — | 137.116 |
| Demolition | — | — | — | — | — | — | 0.01808 | 0.01808 | — | 0.00274 | 0.00274 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01604 | 0.01345 | 0.12433 | 0.14435 | 0.00024 | 0.00470 | — | 0.00470 | 0.00433 | — | 0.00433 | — | 22.6235 | 22.6235 | 0.00092 | 0.00018 | — | 22.7012 |
| Demolition | — | — | — | — | — | — | 0.00330 | 0.00330 | — | 0.00050 | 0.00050 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04210 | 0.03756 | 0.03454 | 0.42566 | 0.00000 | 0.00000 | 0.11573 | 0.11573 | 0.00000 | 0.02713 | 0.02713 | — | 107.063 | 107.063 | 0.00247 | 0.00454 | 0.01007 | 108.487 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.14502 | 0.03201 | 1.93085 | 0.92299 | 0.01019 | 0.01940 | 0.40788 | 0.42728 | 0.01940 | 0.11167 | 0.13107 | — | 1,509.72 | 1,509.72 | 0.12174 | 0.23863 | 0.07685 | 1,583.95 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Worker | 0.00227 | 0.00202 | 0.00186 | 0.02310 | 0.00000 | 0.00000 | 0.00623 | 0.00623 | 0.00000 | 0.00146 | 0.00146 | — | 5.93088 | 5.93088 | 0.00012 | 0.00025 | 0.00917 | 6.01710 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00800 | 0.00181 | 0.10370 | 0.05034 | 0.00056 | 0.00106 | 0.02204 | 0.02310 | 0.00106 | 0.00604 | 0.00710 | — | 82.7043 | 82.7043 | 0.00667 | 0.01308 | 0.07008 | 86.8376 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00041 | 0.00037 | 0.00034 | 0.00422 | 0.00000 | 0.00000 | 0.00114 | 0.00114 | 0.00000 | 0.00027 | 0.00027 | — | 0.98193 | 0.98193 | 0.00002 | 0.00004 | 0.00152 | 0.99620 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00146 | 0.00033 | 0.01893 | 0.00919 | 0.00010 | 0.00019 | 0.00402 | 0.00422 | 0.00019 | 0.00110 | 0.00130 | — | 13.6926 | 13.6926 | 0.00110 | 0.00216 | 0.01160 | 14.3770 |

3.2. Mobilization, Clear and Grub (2027)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28950 | 1.08354 | 9.07446 | 10.7681 | 0.02508 | 0.38896 | — | 0.38896 | 0.35784 | — | 0.35784 | — | 2,715.88 | 2,715.88 | 0.11017 | 0.02203 | — | 2,725.20 |
| Dust From Material Movement | — | — | — | — | — | — | 0.62040 | 0.62040 | — | 0.06699 | 0.06699 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Off-Road Equipment | 0.21197 | 0.17812 | 1.49169 | 1.77009 | 0.00412 | 0.06394 | — | 0.06394 | 0.05882 | — | 0.05882 | — | 446.445 | 446.445 | 0.01811 | 0.00362 | — | 447.978 |
| Dust From Material Movement | — | — | — | — | — | — | 0.10198 | 0.10198 | — | 0.01101 | 0.01101 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03868 | 0.03251 | 0.27223 | 0.32304 | 0.00075 | 0.01167 | — | 0.01167 | 0.01074 | — | 0.01074 | — | 73.9141 | 73.9141 | 0.00300 | 0.00060 | — | 74.1678 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01861 | 0.01861 | — | 0.00201 | 0.00201 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02406 | 0.02146 | 0.01974 | 0.24323 | 0.00000 | 0.00000 | 0.06613 | 0.06613 | 0.00000 | 0.01550 | 0.01550 | — | 61.1791 | 61.1791 | 0.00141 | 0.00259 | 0.00575 | 61.9927 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00022 | 0.00005 | 0.00293 | 0.00140 | 0.00002 | 0.00003 | 0.00062 | 0.00065 | 0.00003 | 0.00017 | 0.00020 | — | 2.28746 | 2.28746 | 0.00018 | 0.00036 | 0.00012 | 2.39993 |

| | | | | | | | | | | | | | | | | | | |
|---------------|---------|------------|---------|---------|------------|------------|---------|---------|------------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00390 | 0.00347 | 0.00319 | 0.03960 | 0.00000 | 0.00000 | 0.01067 | 0.01067 | 0.00000 | 0.00250 | 0.00250 | — | 10.1672 | 10.1672 | 0.00020 | 0.00043 | 0.01572 | 10.3150 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00004 | 0.00001 | 0.00047 | 0.00023 | < 0.000005 | < 0.000005 | 0.00010 | 0.00011 | < 0.000005 | 0.00003 | 0.00003 | — | 0.37593 | 0.37593 | 0.00003 | 0.00006 | 0.00032 | 0.39472 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00071 | 0.00063 | 0.00058 | 0.00723 | 0.00000 | 0.00000 | 0.00195 | 0.00195 | 0.00000 | 0.00046 | 0.00046 | — | 1.68330 | 1.68330 | 0.00003 | 0.00007 | 0.00260 | 1.70777 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00001 | < 0.000005 | 0.00009 | 0.00004 | < 0.000005 | < 0.000005 | 0.00002 | 0.00002 | < 0.000005 | 0.00001 | 0.00001 | — | 0.06224 | 0.06224 | 0.00001 | 0.00001 | 0.00005 | 0.06535 |

3.3. Excavation, Foundation (2027)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.63491 | 1.37378 | 12.1813 | 13.8677 | 0.02267 | 0.53897 | — | 0.53897 | 0.49585 | — | 0.49585 | — | 2,455.46 | 2,455.46 | 0.09960 | 0.01992 | — | 2,463.88 |
| Dust From Material Movement | — | — | — | — | — | — | 2.76232 | 2.76232 | — | 1.33566 | 1.33566 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|----------|----------|---------|---------|---------|----------|
| Off-Road | 1.63491 | 1.37378 | 12.1813 | 13.8677 | 0.02267 | 0.53897 | — | 0.53897 | 0.49585 | — | 0.49585 | — | 2,455.46 | 2,455.46 | 0.09960 | 0.01992 | — | 2,463.88 |
| Dust From Material Movement | — | — | — | — | — | — | 2.76232 | 2.76232 | — | 1.33566 | 1.33566 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.73011 | 0.61350 | 5.43988 | 6.19296 | 0.01012 | 0.24069 | — | 0.24069 | 0.22144 | — | 0.22144 | — | 1,096.55 | 1,096.55 | 0.04448 | 0.00890 | — | 1,100.31 |
| Dust From Material Movement | — | — | — | — | — | — | 1.23358 | 1.23358 | — | 0.59647 | 0.59647 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13325 | 0.11196 | 0.99278 | 1.13022 | 0.00185 | 0.04393 | — | 0.04393 | 0.04041 | — | 0.04041 | — | 181.546 | 181.546 | 0.00736 | 0.00147 | — | 182.169 |
| Dust From Material Movement | — | — | — | — | — | — | 0.22513 | 0.22513 | — | 0.10886 | 0.10886 | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03095 | 0.02771 | 0.02099 | 0.35660 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 82.5444 | 82.5444 | 0.00132 | 0.00324 | 0.27701 | 83.8203 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.01336 | 0.00304 | 0.16618 | 0.08325 | 0.00093 | 0.00176 | 0.03708 | 0.03884 | 0.00176 | 0.01015 | 0.01192 | — | 137.190 | 137.190 | 0.01107 | 0.02169 | 0.26860 | 144.200 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03007 | 0.02683 | 0.02467 | 0.30404 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 76.4739 | 76.4739 | 0.00176 | 0.00324 | 0.00719 | 77.4909 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.01318 | 0.00291 | 0.17553 | 0.08391 | 0.00093 | 0.00176 | 0.03708 | 0.03884 | 0.00176 | 0.01015 | 0.01192 | — | 137.248 | 137.248 | 0.01107 | 0.02169 | 0.00699 | 143.996 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01323 | 0.01178 | 0.01082 | 0.13448 | 0.00000 | 0.00000 | 0.03625 | 0.03625 | 0.00000 | 0.00849 | 0.00849 | — | 34.5262 | 34.5262 | 0.00069 | 0.00145 | 0.05337 | 35.0281 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00593 | 0.00134 | 0.07683 | 0.03729 | 0.00041 | 0.00079 | 0.01633 | 0.01712 | 0.00079 | 0.00448 | 0.00526 | — | 61.2763 | 61.2763 | 0.00494 | 0.00969 | 0.05192 | 64.3388 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00241 | 0.00215 | 0.00197 | 0.02454 | 0.00000 | 0.00000 | 0.00662 | 0.00662 | 0.00000 | 0.00155 | 0.00155 | — | 5.71621 | 5.71621 | 0.00011 | 0.00024 | 0.00884 | 5.79930 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00108 | 0.00024 | 0.01402 | 0.00681 | 0.00008 | 0.00014 | 0.00298 | 0.00312 | 0.00014 | 0.00082 | 0.00096 | — | 10.1450 | 10.1450 | 0.00082 | 0.00160 | 0.00860 | 10.6520 |

3.4. Construct Cleanwater Center and Utility Connections (2027)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|----------|----------|---------|---------|---------|----------|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35443 | 1.12848 | 9.69609 | 11.7033 | 0.02312 | 0.32173 | — | 0.32173 | 0.29600 | — | 0.29600 | — | 2,200.89 | 2,200.89 | 0.08928 | 0.01786 | — | 2,208.44 |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12192 | 0.10159 | 0.87284 | 1.05353 | 0.00208 | 0.02896 | — | 0.02896 | 0.02665 | — | 0.02665 | — | 198.123 | 198.123 | 0.00804 | 0.00161 | — | 198.803 |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02225 | 0.01854 | 0.15929 | 0.19227 | 0.00038 | 0.00529 | — | 0.00529 | 0.00486 | — | 0.00486 | — | 32.8015 | 32.8015 | 0.00133 | 0.00027 | — | 32.9141 |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03007 | 0.02683 | 0.02467 | 0.30404 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 76.4739 | 76.4739 | 0.00176 | 0.00324 | 0.00719 | 77.4909 |

| | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Vendor | 0.01150 | 0.00388 | 0.16672 | 0.08052 | 0.00094 | 0.00187 | 0.03560 | 0.03748 | 0.00187 | 0.00984 | 0.01171 | — | 131.322 | 131.322 | 0.00740 | 0.01961 | 0.00749 | 137.357 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00267 | 0.00238 | 0.00218 | 0.02711 | 0.00000 | 0.00000 | 0.00731 | 0.00731 | 0.00000 | 0.00171 | 0.00171 | — | 6.95971 | 6.95971 | 0.00014 | 0.00029 | 0.01076 | 7.06088 |
| Vendor | 0.00104 | 0.00036 | 0.01472 | 0.00715 | 0.00008 | 0.00017 | 0.00316 | 0.00332 | 0.00017 | 0.00087 | 0.00104 | — | 11.8169 | 11.8169 | 0.00068 | 0.00176 | 0.01123 | 12.3710 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00049 | 0.00043 | 0.00040 | 0.00495 | 0.00000 | 0.00000 | 0.00133 | 0.00133 | 0.00000 | 0.00031 | 0.00031 | — | 1.15226 | 1.15226 | 0.00002 | 0.00005 | 0.00178 | 1.16901 |
| Vendor | 0.00019 | 0.00007 | 0.00269 | 0.00130 | 0.00002 | 0.00003 | 0.00058 | 0.00061 | 0.00003 | 0.00016 | 0.00019 | — | 1.95642 | 1.95642 | 0.00011 | 0.00029 | 0.00186 | 2.04816 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.5. Construct Cleanwater Center and Utility Connections (2028)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.29438 | 1.07850 | 9.22917 | 11.6712 | 0.02312 | 0.28471 | — | 0.28471 | 0.26194 | — | 0.26194 | — | 2,201.41 | 2,201.41 | 0.08930 | 0.01786 | — | 2,208.97 |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.29438 | 1.07850 | 9.22917 | 11.6712 | 0.02312 | 0.28471 | — | 0.28471 | 0.26194 | — | 0.26194 | — | 2,201.41 | 2,201.41 | 0.08930 | 0.01786 | — | 2,208.97 |

| | | | | | | | | | | | | | | | | | | | |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|---------|----------|---------|
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.92709 | 0.77247 | 6.61033 | 8.35939 | 0.01656 | 0.20392 | — | 0.20392 | 0.18761 | — | 0.18761 | — | 1,576.75 | 1,576.75 | 0.06396 | 0.01279 | — | 1,582.16 | |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Off-Road Equipment | 0.16919 | 0.14098 | 1.20638 | 1.52559 | 0.00302 | 0.03722 | — | 0.03722 | 0.03424 | — | 0.03424 | — | 261.049 | 261.049 | 0.01059 | 0.00212 | — | 261.944 | |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02985 | 0.02661 | 0.01819 | 0.33523 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 81.1043 | 81.1043 | 0.00132 | 0.00066 | 0.24898 | 81.5835 |
| Vendor | 0.01161 | 0.00410 | 0.15050 | 0.07537 | 0.00094 | 0.00187 | 0.03560 | 0.03748 | 0.00094 | 0.00984 | 0.01077 | — | 128.027 | 128.027 | 0.00646 | 0.01856 | 0.25559 | 133.975 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02897 | 0.02573 | 0.02445 | 0.28585 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 75.1463 | 75.1463 | 0.00176 | 0.00324 | 0.00645 | 76.1626 |
| Vendor | 0.01045 | 0.00388 | 0.15928 | 0.07738 | 0.00094 | 0.00187 | 0.03560 | 0.03748 | 0.00094 | 0.00984 | 0.01077 | — | 128.120 | 128.120 | 0.00646 | 0.01867 | 0.00662 | 133.852 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02059 | 0.01827 | 0.01535 | 0.20313 | 0.00000 | 0.00000 | 0.05814 | 0.05814 | 0.00000 | 0.01361 | 0.01361 | — | 54.4124 | 54.4124 | 0.00111 | 0.00232 | 0.07688 | 55.2086 |
| Vendor | 0.00831 | 0.00286 | 0.11187 | 0.05462 | 0.00067 | 0.00134 | 0.02511 | 0.02645 | 0.00067 | 0.00695 | 0.00762 | — | 91.7266 | 91.7266 | 0.00463 | 0.01329 | 0.07897 | 95.8826 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00376 | 0.00333 | 0.00280 | 0.03707 | 0.00000 | 0.00000 | 0.01061 | 0.01061 | 0.00000 | 0.00248 | 0.00248 | — | 9.00859 | 9.00859 | 0.00018 | 0.00038 | 0.01273 | 9.14042 |
| Vendor | 0.00152 | 0.00052 | 0.02042 | 0.00997 | 0.00012 | 0.00024 | 0.00458 | 0.00483 | 0.00012 | 0.00127 | 0.00139 | — | 15.1864 | 15.1864 | 0.00077 | 0.00220 | 0.01308 | 15.8745 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.6. Construct Cleanwater Center and Utility Connections (2029)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.24858 | 1.04039 | 8.88672 | 11.6062 | 0.02312 | 0.25913 | — | 0.25913 | 0.23840 | — | 0.23840 | — | 2,201.04 | 2,201.04 | 0.08928 | 0.01786 | — | 2,208.60 |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.21991 | 0.18324 | 1.56518 | 2.04415 | 0.00407 | 0.04564 | — | 0.04564 | 0.04199 | — | 0.04199 | — | 387.659 | 387.659 | 0.01573 | 0.00315 | — | 388.990 |

| | | | | | | | | | | | | | | | | | | | |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04013 | 0.03344 | 0.28564 | 0.37306 | 0.00074 | 0.00833 | — | 0.00833 | 0.00766 | — | 0.00766 | — | 64.1814 | 64.1814 | 0.00260 | 0.00052 | — | 64.4017 | |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02787 | 0.02441 | 0.02165 | 0.27068 | 0.00000 | 0.00000 | 0.08266 | 0.08266 | 0.00000 | 0.01938 | 0.01938 | — | 73.8956 | 73.8956 | 0.00154 | 0.00324 | 0.00575 | 74.9056 |
| Vendor | 0.01045 | 0.00388 | 0.15195 | 0.07528 | 0.00094 | 0.00187 | 0.03560 | 0.03748 | 0.00094 | 0.00984 | 0.01077 | — | 124.543 | 124.543 | 0.00646 | 0.01856 | 0.00586 | 130.241 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00487 | 0.00430 | 0.00324 | 0.04694 | 0.00000 | 0.00000 | 0.01430 | 0.01430 | 0.00000 | 0.00335 | 0.00335 | — | 13.1574 | 13.1574 | 0.00027 | 0.00057 | 0.01689 | 13.3511 |
| Vendor | 0.00186 | 0.00070 | 0.02618 | 0.01306 | 0.00016 | 0.00033 | 0.00618 | 0.00650 | 0.00016 | 0.00171 | 0.00187 | — | 21.9253 | 21.9253 | 0.00114 | 0.00327 | 0.01720 | 22.9451 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00089 | 0.00078 | 0.00059 | 0.00857 | 0.00000 | 0.00000 | 0.00261 | 0.00261 | 0.00000 | 0.00061 | 0.00061 | — | 2.17835 | 2.17835 | 0.00005 | 0.00009 | 0.00280 | 2.21043 |
| Vendor | 0.00034 | 0.00013 | 0.00478 | 0.00238 | 0.00003 | 0.00006 | 0.00113 | 0.00119 | 0.00003 | 0.00031 | 0.00034 | — | 3.62999 | 3.62999 | 0.00019 | 0.00054 | 0.00285 | 3.79882 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.7. Landscaping, utility Connections, Paving, Fencing (2028)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|----------|----------|---------|---------|---------|----------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.73039 | 0.61281 | 5.53389 | 8.17802 | 0.01181 | 0.20197 | — | 0.20197 | 0.18581 | — | 0.18581 | — | 1,243.79 | 1,243.79 | 0.05045 | 0.01009 | — | 1,248.05 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00081 | 0.00081 | — | 0.00012 | 0.00012 | — | — | — | — | — | — | — |
| Paving | 0.04210 | 0.04210 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.22012 | 0.18468 | 1.66775 | 2.46461 | 0.00356 | 0.06087 | — | 0.06087 | 0.05600 | — | 0.05600 | — | 374.840 | 374.840 | 0.01521 | 0.00304 | — | 376.126 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00025 | 0.00025 | — | 0.00004 | 0.00004 | — | — | — | — | — | — | — |
| Paving | 0.01269 | 0.01269 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04017 | 0.03370 | 0.30436 | 0.44979 | 0.00065 | 0.01111 | — | 0.01111 | 0.01022 | — | 0.01022 | — | 62.0590 | 62.0590 | 0.00252 | 0.00050 | — | 62.2720 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00004 | 0.00004 | — | 0.00001 | 0.00001 | — | — | — | — | — | — | — |
| Paving | 0.00232 | 0.00232 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04776 | 0.04258 | 0.02910 | 0.53638 | 0.00000 | 0.00000 | 0.13226 | 0.13226 | 0.00000 | 0.03100 | 0.03100 | — | 129.767 | 129.767 | 0.00212 | 0.00106 | 0.39836 | 130.534 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.03995 | 0.00913 | 0.48149 | 0.24194 | 0.00278 | 0.00529 | 0.11124 | 0.11653 | 0.00529 | 0.03046 | 0.03575 | — | 400.927 | 400.927 | 0.03042 | 0.06508 | 0.73771 | 421.820 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01386 | 0.01230 | 0.01033 | 0.13675 | 0.00000 | 0.00000 | 0.03914 | 0.03914 | 0.00000 | 0.00916 | 0.00916 | — | 36.6317 | 36.6317 | 0.00074 | 0.00156 | 0.05176 | 37.1678 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.01196 | 0.00267 | 0.15045 | 0.07315 | 0.00084 | 0.00159 | 0.03306 | 0.03466 | 0.00159 | 0.00906 | 0.01066 | — | 120.850 | 120.850 | 0.00917 | 0.01961 | 0.09611 | 127.020 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00253 | 0.00224 | 0.00189 | 0.02496 | 0.00000 | 0.00000 | 0.00714 | 0.00714 | 0.00000 | 0.00167 | 0.00167 | — | 6.06480 | 6.06480 | 0.00012 | 0.00026 | 0.00857 | 6.15355 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Hauling | 0.00218 | 0.00049 | 0.02746 | 0.01335 | 0.00015 | 0.00029 | 0.00603 | 0.00632 | 0.00029 | 0.00165 | 0.00194 | — | 20.0081 | 20.0081 | 0.00152 | 0.00325 | 0.01591 | 21.0296 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|

3.8. Architectural Coating (2029)

3.8.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12385 | 0.10236 | 0.79416 | 1.11216 | 0.00173 | 0.01284 | — | 0.01284 | 0.01181 | — | 0.01181 | — | 133.510 | 133.510 | 0.00542 | 0.00108 | — | 133.968 |
| Architectural Coatings | 34.3031 | 34.3031 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.00339 | 0.00280 | 0.02176 | 0.03047 | 0.00005 | 0.00035 | — | 0.00035 | 0.00032 | — | 0.00032 | — | 3.65780 | 3.65780 | 0.00015 | 0.00003 | — | 3.67035 |
| Architectural Coatings | 0.93981 | 0.93981 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|------------|---------|---------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.00062 | 0.00051 | 0.00397 | 0.00556 | 0.00001 | 0.00006 | — | 0.00006 | 0.00006 | — | 0.00006 | — | 0.60559 | 0.60559 | 0.00002 | < 0.000005 | — | 0.60767 |
| Architectural Coatings | 0.17152 | 0.17152 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

3.8.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|------------|------------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00557 | 0.00488 | 0.00433 | 0.05414 | 0.00000 | 0.00000 | 0.01653 | 0.01653 | 0.00000 | 0.00388 | 0.00388 | — | 14.7791 | 14.7791 | 0.00031 | 0.00065 | 0.00115 | 14.9811 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00015 | 0.00013 | 0.00010 | 0.00146 | 0.00000 | 0.00000 | 0.00044 | 0.00044 | 0.00000 | 0.00010 | 0.00010 | — | 0.40934 | 0.40934 | 0.00001 | 0.00002 | 0.00053 | 0.41537 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00003 | 0.00002 | 0.00002 | 0.00027 | 0.00000 | 0.00000 | 0.00008 | 0.00008 | 0.00000 | 0.00002 | 0.00002 | — | 0.06777 | 0.06777 | < 0.000005 | < 0.000005 | 0.00009 | 0.06877 |
| Vendor | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Hauling | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.27837 | 0.25334 | 0.21483 | 2.68738 | 0.00740 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 753.434 | 753.434 | 0.02356 | 0.02599 | 1.98094 | 763.748 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Total | 0.27837 | 0.25334 | 0.21483 | 2.68738 | 0.00740 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 753.434 | 753.434 | 0.02356 | 0.02599 | 1.98094 | 763.748 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.26918 | 0.24351 | 0.25141 | 2.40177 | 0.00695 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 707.944 | 707.944 | 0.02576 | 0.02843 | 0.05136 | 717.112 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Total | 0.26918 | 0.24351 | 0.25141 | 2.40177 | 0.00695 | 0.00404 | 0.74130 | 0.74534 | 0.00377 | 0.18792 | 0.19169 | — | 707.944 | 707.944 | 0.02576 | 0.02843 | 0.05136 | 717.112 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.04230 | 0.03828 | 0.03762 | 0.37689 | 0.00111 | 0.00064 | 0.11564 | 0.11628 | 0.00060 | 0.02932 | 0.02992 | — | 102.947 | 102.947 | 0.00357 | 0.00396 | 0.12329 | 104.338 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

| | | | | | | | | | | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|
| Total | 0.04230 | 0.03828 | 0.03762 | 0.37689 | 0.00111 | 0.00064 | 0.11564 | 0.11628 | 0.00060 | 0.02932 | 0.02992 | — | 102.947 | 102.947 | 0.00357 | 0.00396 | 0.12329 | 104.338 |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|---------|---------|---------|---------|---|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 364.727 | 364.727 | 0.05900 | 0.00715 | — | 368.333 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 37.6961 | 37.6961 | 0.00610 | 0.00074 | — | 38.0688 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 402.423 | 402.423 | 0.06510 | 0.00789 | — | 406.402 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 364.727 | 364.727 | 0.05900 | 0.00715 | — | 368.333 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 37.6961 | 37.6961 | 0.00610 | 0.00074 | — | 38.0688 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 402.423 | 402.423 | 0.06510 | 0.00789 | — | 406.402 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 60.3847 | 60.3847 | 0.00977 | 0.00118 | — | 60.9817 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.24101 | 6.24101 | 0.00101 | 0.00012 | — | 6.30272 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 66.6257 | 66.6257 | 0.01078 | 0.00131 | — | 67.2845 |

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|---------|---------|---------|---------|---------|---------|-------|---------|---------|--------|---------|------|---------|---------|---------|---------|---|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | 0.00000 | — | 0.00000 | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------|---------|---------|---------|---------|---------|---------|-------|---------|---------|--------|---------|------|---------|---------|---------|---------|---|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.66582 | 0.66582 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.09398 | 0.09398 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.23870 | 0.22030 | 0.01128 | 1.34087 | 0.00008 | 0.00238 | — | 0.00238 | 0.00180 | — | 0.00180 | — | 5.51384 | 5.51384 | 0.00023 | 0.00005 | — | 5.53372 |
| Total | 0.99850 | 0.98010 | 0.01128 | 1.34087 | 0.00008 | 0.00238 | — | 0.00238 | 0.00180 | — | 0.00180 | — | 5.51384 | 5.51384 | 0.00023 | 0.00005 | — | 5.53372 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.66582 | 0.66582 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.09398 | 0.09398 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.75980 | 0.75980 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.12151 | 0.12151 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------|---------|---------|---------|---------|---------|---------|---|---------|---------|---|---------|---|---------|---------|---------|------------|---|---------|
| Architectural Coating | 0.01715 | 0.01715 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Landscape Equipment | 0.02148 | 0.01983 | 0.00102 | 0.12068 | 0.00001 | 0.00021 | — | 0.00021 | 0.00016 | — | 0.00016 | — | 0.45019 | 0.45019 | 0.00002 | < 0.000005 | — | 0.45181 |
| Total | 0.16015 | 0.15849 | 0.00102 | 0.12068 | 0.00001 | 0.00021 | — | 0.00021 | 0.00016 | — | 0.00016 | — | 0.45019 | 0.45019 | 0.00002 | < 0.000005 | — | 0.45181 |

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|---------|---------|---------|---------|---------|---|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 10.5001 | 19.9216 | 30.4216 | 1.07989 | 0.02597 | — | 65.1584 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|---------|---------|---|---------|
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 1.73841 | 3.29824 | 5.03665 | 0.17879 | 0.00430 | — | 10.7877 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 1.73841 | 3.29824 | 5.03665 | 0.17879 | 0.00430 | — | 10.7877 |

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e | |
|-------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|---------|---------|---------|---------|---------|---|---------|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 | |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 | |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 | |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 | |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4524 | 0.00000 | 15.4524 | 1.54441 | 0.00000 | — | 54.0627 | |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|---------|---------|---|---------|
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 2.55832 | 0.00000 | 2.55832 | 0.25569 | 0.00000 | — | 8.95070 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | — | 0.00000 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 2.55832 | 0.00000 | 2.55832 | 0.25569 | 0.00000 | — | 8.95070 |

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e | |
|-------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|---------|---------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.07498 | 0.07498 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.01241 | 0.01241 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.01241 | 0.01241 |

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipm ent Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipm ent Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipm ent Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

5. Activity Data

5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|-----------------------|------------|------------|---------------|---------------------|-------------------|
| Mobilization, Demolition, Clear and Grub | Demolition | 3/4/2027 | 3/31/2027 | 5.00000 | 20.0000 | — |
| Mobilization, Clear and Grub | Site Preparation | 1/4/2027 | 3/27/2027 | 5.00000 | 60.0000 | — |
| Excavation, Foundation | Grading | 4/1/2027 | 11/15/2027 | 5.00000 | 163.000 | — |
| Construct Cleanwater Center and Utility Connections | Building Construction | 11/16/2027 | 3/31/2029 | 5.00000 | 359.000 | — |
| Landscaping, utility Connections, Paving, Fencing | Paving | 5/1/2028 | 9/30/2028 | 5.00000 | 110.000 | — |
| Architectural Coating | Architectural Coating | 3/19/2029 | 3/31/2029 | 5.00000 | 10.00000 | — |

5.2. Off-Road Equipment

5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|--|----------------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Mobilization, Demolition, Clear and Grub | Concrete/Industrial Saws | Diesel | Average | 1.000000 | 8.00000 | 33.0000 | 0.73000 |
| Mobilization, Demolition, Clear and Grub | Rubber Tired Dozers | Diesel | Average | 1.000000 | 8.00000 | 367.000 | 0.40000 |
| Mobilization, Demolition, Clear and Grub | Tractors/Loaders/Back hoes | Diesel | Average | 3.00000 | 8.00000 | 84.0000 | 0.37000 |
| Mobilization, Clear and Grub | Graders | Diesel | Average | 1.000000 | 8.00000 | 148.000 | 0.41000 |
| Mobilization, Clear and Grub | Scrapers | Diesel | Average | 1.000000 | 8.00000 | 423.000 | 0.48000 |

| | | | | | | | |
|---|----------------------------|--------|---------|----------|---------|----------|---------|
| Mobilization, Clear and Grub | Tractors/Loaders/Back hoes | Diesel | Average | 1.000000 | 7.00000 | 84.0000 | 0.37000 |
| Excavation, Foundation | Graders | Diesel | Average | 1.000000 | 8.00000 | 148.000 | 0.41000 |
| Excavation, Foundation | Rubber Tired Dozers | Diesel | Average | 1.000000 | 8.00000 | 367.000 | 0.40000 |
| Excavation, Foundation | Tractors/Loaders/Back hoes | Diesel | Average | 2.00000 | 7.00000 | 84.0000 | 0.37000 |
| Construct Cleanwater Center and Utility Connections | Cranes | Diesel | Average | 1.000000 | 8.00000 | 367.000 | 0.29000 |
| Construct Cleanwater Center and Utility Connections | Forklifts | Diesel | Average | 2.00000 | 7.00000 | 82.0000 | 0.20000 |
| Construct Cleanwater Center and Utility Connections | Generator Sets | Diesel | Average | 1.000000 | 8.00000 | 14.0000 | 0.74000 |
| Construct Cleanwater Center and Utility Connections | Tractors/Loaders/Back hoes | Diesel | Average | 1.000000 | 6.00000 | 84.0000 | 0.37000 |
| Construct Cleanwater Center and Utility Connections | Welders | Diesel | Average | 3.00000 | 8.00000 | 46.0000 | 0.45000 |
| Landscaping, utility Connections, Paving, Fencing | Cement and Mortar Mixers | Diesel | Average | 1.000000 | 8.00000 | 10.00000 | 0.56000 |
| Landscaping, utility Connections, Paving, Fencing | Pavers | Diesel | Average | 1.000000 | 8.00000 | 81.0000 | 0.42000 |
| Landscaping, utility Connections, Paving, Fencing | Paving Equipment | Diesel | Average | 1.000000 | 8.00000 | 89.0000 | 0.36000 |
| Landscaping, utility Connections, Paving, Fencing | Rollers | Diesel | Average | 2.00000 | 8.00000 | 36.0000 | 0.38000 |

| | | | | | | | |
|---|----------------------------|--------|---------|----------|---------|---------|---------|
| Landscaping, utility Connections, Paving, Fencing | Tractors/Loaders/Back hoes | Diesel | Average | 1.000000 | 8.00000 | 84.0000 | 0.37000 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.000000 | 6.00000 | 37.0000 | 0.48000 |

5.3. Construction Vehicles

5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|--------------|-----------------------|----------------|---------------|
| Mobilization, Demolition, Clear and Grub | Worker | 14.0000 | 11.7000 | LDA,LDT1,LDT2 |
| Mobilization, Demolition, Clear and Grub | Vendor | — | 8.40000 | HHDT,MHDT |
| Mobilization, Demolition, Clear and Grub | Hauling | 22.0000 | 20.0000 | HHDT |
| Mobilization, Demolition, Clear and Grub | Onsite truck | — | — | HHDT |
| Mobilization, Clear and Grub | Worker | 8.00000 | 11.7000 | LDA,LDT1,LDT2 |
| Mobilization, Clear and Grub | Vendor | — | 8.40000 | HHDT,MHDT |
| Mobilization, Clear and Grub | Hauling | 0.03333 | 20.0000 | HHDT |
| Mobilization, Clear and Grub | Onsite truck | — | — | HHDT |
| Excavation, Foundation | Worker | 10.00000 | 11.7000 | LDA,LDT1,LDT2 |
| Excavation, Foundation | Vendor | — | 8.40000 | HHDT,MHDT |
| Excavation, Foundation | Hauling | 2.00000 | 20.0000 | HHDT |
| Excavation, Foundation | Onsite truck | — | — | HHDT |
| Construct Cleanwater Center and Utility Connections | Worker | 10.00000 | 11.7000 | LDA,LDT1,LDT2 |
| Construct Cleanwater Center and Utility Connections | Vendor | 5.05304 | 8.40000 | HHDT,MHDT |
| Construct Cleanwater Center and Utility Connections | Hauling | 0.00000 | 20.0000 | HHDT |

| | | | | |
|---|--------------|---------|---------|---------------|
| Construct Cleanwater Center and Utility Connections | Onsite truck | — | — | HHDT |
| Landscaping, utility Connections, Paving, Fencing | Worker | 16.0000 | 11.7000 | LDA,LDT1,LDT2 |
| Landscaping, utility Connections, Paving, Fencing | Vendor | — | 8.40000 | HHDT,MHDT |
| Landscaping, utility Connections, Paving, Fencing | Hauling | 6.00000 | 20.0000 | HHDT |
| Landscaping, utility Connections, Paving, Fencing | Onsite truck | — | — | HHDT |
| Architectural Coating | Worker | 2.00000 | 11.7000 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40000 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00000 | 20.0000 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|-----------------------|--|--|--|--|-----------------------------|
| Architectural Coating | 0.00000 | 0.00000 | 46,245.0 | 15,415.0 | 4,620.00 |

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Acres Graded (acres) | Material Demolished (Building Square Footage) | Acres Paved (acres) |
|--|---------------------------------|---------------------------------|----------------------|---|---------------------|
| Mobilization, Demolition, Clear and Grub | 0.00000 | 0.00000 | 0.00000 | 6,600.00 | 0.00000 |

| | | | | | |
|---|---------|----------|---------|---------|---------|
| Mobilization, Clear and Grub | 0.00000 | 10.00000 | 7.50000 | 0.00000 | 0.00000 |
| Excavation, Foundation | 0.00000 | 800.000 | 130.000 | 0.00000 | 0.00000 |
| Landscaping, utility Connections, Paving, Fencing | 0.00000 | 3,942.00 | 7.50000 | 0.00000 | 1.76768 |

5.6.2. Construction Earthmoving Control Strategies

| Control Strategies Applied | Frequency (per day) | PM10 Reduction | PM2.5 Reduction |
|----------------------------|---------------------|----------------|-----------------|
| Water Exposed Area | 2 | 61% | 61% |

5.7. Construction Paving

| Phase Name | Land Use | Area Paved (acres) | % Asphalt |
|---|-------------------------|--------------------|-----------|
| Landscaping, utility Connections, Paving, Fencing | General Office Building | 0.00000 | 0% |
| Landscaping, utility Connections, Paving, Fencing | Parking Lot | 1.76768 | 100% |

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|------|--------------|---------|---------|---------|
| 2027 | 0.00000 | 203.983 | 0.03300 | 0.00400 |
| 2028 | 0.00000 | 203.983 | 0.03300 | 0.00400 |
| 2029 | 0.00000 | 203.983 | 0.03300 | 0.00400 |

5.9. Operational Mobile Sources

5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---------------|---------------|----------------|--------------|------------|-------------|--------------|------------|----------|
|---------------|---------------|----------------|--------------|------------|-------------|--------------|------------|----------|

| | | | | | | | | |
|-------------------------|---------|---------|---------|----------|----------|---------|---------|---------|
| General Office Building | 82.0000 | 68.1343 | 21.5810 | 26,056.6 | 1,051.05 | 873.324 | 276.618 | 333,985 |
| Parking Lot | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

5.10. Operational Area Sources

5.10.1. Hearths

| Land Use | Hearth Type | Unmitigated (number) | Mitigated (number) |
|-------------------------|---------------------------|----------------------|--------------------|
| General Office Building | Wood Fireplaces | 0 | 0 |
| General Office Building | Gas Fireplaces | 0 | 0 |
| General Office Building | Propane Fireplaces | 0 | 0 |
| General Office Building | Electric Fireplaces | 0 | 0 |
| General Office Building | No Fireplaces | 0 | 0 |
| General Office Building | Conventional Wood Stoves | 0 | 0 |
| General Office Building | Catalytic Wood Stoves | 0 | 0 |
| General Office Building | Non-Catalytic Wood Stoves | 0 | 0 |
| General Office Building | Pellet Wood Stoves | 0 | 0 |
| Parking Lot | Wood Fireplaces | 0 | 0 |
| Parking Lot | Gas Fireplaces | 0 | 0 |
| Parking Lot | Propane Fireplaces | 0 | 0 |
| Parking Lot | Electric Fireplaces | 0 | 0 |
| Parking Lot | No Fireplaces | 0 | 0 |
| Parking Lot | Conventional Wood Stoves | 0 | 0 |
| Parking Lot | Catalytic Wood Stoves | 0 | 0 |
| Parking Lot | Non-Catalytic Wood Stoves | 0 | 0 |
| Parking Lot | Pellet Wood Stoves | 0 | 0 |

5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|--|--|--|--|-----------------------------|
| 0.00000 | 0.00000 | 46,245.0 | 15,415.0 | 4,620.00 |

5.10.3. Landscape Equipment

| Season | Unit | Value |
|-------------|--------|---------|
| Snow Days | day/yr | 0.00000 |
| Summer Days | day/yr | 180.000 |

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|-------------------------|----------------------|---------|--------|--------|-----------------------|
| General Office Building | 652,629 | 203.983 | 0.0330 | 0.0040 | 0.00000 |
| Parking Lot | 67,452.0 | 203.983 | 0.0330 | 0.0040 | 0.00000 |

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|-------------------------|-------------------------|--------------------------|
| General Office Building | 5,479,531 | 32,958.6 |
| Parking Lot | 0.00000 | 0.00000 |

5.13. Operational Waste Generation

5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|----------|------------------|-------------------------|
|----------|------------------|-------------------------|

| | | |
|-------------------------|---------|---------|
| General Office Building | 28.6719 | 0.00000 |
| Parking Lot | 0.00000 | 0.00000 |

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

| Land Use | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|-------------------------|---|-------------|----------|---------------|----------------------|-------------------|----------------|
| General Office Building | Household refrigerators and/or freezers | R-134a | 1,430.00 | 0.01679 | 0.60000 | 0.00000 | 1.000000 |
| General Office Building | Other commercial A/C and heat pumps | R-410A | 2,088.00 | 0.00180 | 4.00000 | 4.00000 | 18.0000 |

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.2. Sequestration

5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|------------------------------|-----------------------------|--|
| Temperature and Extreme Heat | 9.65000 | annual days of extreme heat |
| Extreme Precipitation | 3.10000 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00638 | meters of inundation depth |
| Wildfire | 10.1800 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 1 | 0 | 0 | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 0 | 0 | 0 | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|------------------------------|----------------|-------------------|-------------------------|---------------------|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 1 | 1 | 1 | 2 |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 1 | 1 | 1 | 2 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---------------------------------|---------------------------------|
| Exposure Indicators | — |
| AQ-Ozone | 15.0467 |
| AQ-PM | 19.4275 |
| AQ-DPM | 28.9981 |
| Drinking Water | 39.0408 |
| Lead Risk Housing | 50.5860 |
| Pesticides | 0.00000 |
| Toxic Releases | 30.3201 |
| Traffic | 94.1250 |
| Effect Indicators | — |
| CleanUp Sites | 99.3841 |
| Groundwater | 94.1723 |
| Haz Waste Facilities/Generators | 93.2098 |
| Impaired Water Bodies | 91.8732 |
| Solid Waste | 99.9542 |
| Sensitive Population | — |
| Asthma | 37.9611 |
| Cardio-vascular | 40.0050 |
| Low Birth Weights | 98.8453 |

| | |
|---------------------------------|---------|
| Socioeconomic Factor Indicators | — |
| Education | 73.4244 |
| Housing | 23.8023 |
| Linguistic | — |
| Poverty | 27.8518 |
| Unemployment | 36.4394 |

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|------------------------|---------------------------------|
| Economic | — |
| Above Poverty | 65.64865905 |
| Employed | 58.03926601 |
| Median HI | 67.43231105 |
| Education | — |
| Bachelor's or higher | 46.42627999 |
| High school enrollment | 100 |
| Preschool enrollment | 71.06377518 |
| Transportation | — |
| Auto Access | 50.77633774 |
| Active commuting | 35.32657513 |
| Social | — |
| 2-parent households | 66.12344412 |
| Voting | 58.42422687 |
| Neighborhood | — |
| Alcohol availability | 48.03028359 |
| Park access | 58.14192224 |
| Retail density | 62.49197998 |

| | |
|--|-------------|
| Supermarket access | 14.28204799 |
| Tree canopy | 39.85628128 |
| Housing | — |
| Homeownership | 46.75991274 |
| Housing habitability | 62.22250738 |
| Low-inc homeowner severe housing cost burden | 75.25984858 |
| Low-inc renter severe housing cost burden | 47.02938535 |
| Uncrowded housing | 42.73065572 |
| Health Outcomes | — |
| Insured adults | 53.9715129 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 20.1 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 80.1 |
| Cognitively Disabled | 95.5 |
| Physically Disabled | 78.7 |
| Heart Attack ER Admissions | 65.7 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 96.4 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |

| | |
|---------------------------------------|------|
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 0.0 |
| SLR Inundation Area | 3.9 |
| Children | 55.0 |
| Elderly | 87.4 |
| English Speaking | 31.8 |
| Foreign-born | 65.1 |
| Outdoor Workers | 23.6 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 21.5 |
| Traffic Density | 88.2 |
| Traffic Access | 46.8 |
| Other Indices | — |
| Hardship | 40.7 |
| Other Decision Support | — |
| 2016 Voting | 69.9 |

7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---------------------------------|
| CalEnviroScreen 4.0 Score for Project Location (a) | 67.0000 |
| Healthy Places Index Score for Project Location (b) | 64.0000 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | Yes |
| Project Located in a Low-Income Community (Assembly Bill 1550) | Yes |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
 b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

| Screen | Justification |
|---|---|
| Construction: Construction Phases | Project Specific Construction Schedule |
| Construction: Dust From Material Movement | Project Specific Information. Material Exported for Demolition Phase include 10 trees assumed at 1 cubic yard each, export quantity for grading is 800 cy, consisting of excavated soil for the slab foundation. Export quantity paving is 220 cy + 340 cy + 400 cy + 2,982 cy. |
| Construction: Trips and VMT | Project Specific Information: Adjusted Haul Truck Trips based on demo/export/import volumes, Rounded worker trips up to even number. |
| Operations: Vehicle Data | Project Specific Information: Adjusted trip rate to include up to 41 additional staff (82 trips total) |
| Operations: Energy Use | Project Specific Information: All-Electric |

8.4. Construction

8.4.1. Construction Phases

| Phase Type | Phase Name | Model Parameter | Default Value | New Value |
|-----------------------|-----------------------|-----------------|---------------|-----------|
| Architectural Coating | Architectural Coating | Start Date | 1/3/2028 | 3/19/2029 |
| Architectural Coating | Architectural Coating | End Date | 1/17/2028 | 3/31/2029 |

8.4.4. Dust from Material Movement

| Phase Name | Model Parameter | Units | Default Value | New Value |
|------------------------------|--------------------|-------------|---------------|-----------|
| Mobilization, Clear and Grub | Material Imported | Cubic Yards | — | 0.00000 |
| Mobilization, Clear and Grub | Material Exported | Cubic Yards | — | 10.00000 |
| Mobilization, Clear and Grub | Total Acres Graded | acres | 90.0000 | 7.50000 |
| Excavation, Foundation | Material Imported | Cubic Yards | — | 0.00000 |
| Excavation, Foundation | Material Exported | Cubic Yards | — | 800.000 |
| Excavation, Foundation | Total Acres Graded | acres | 163.000 | 130.000 |

8.4.6. Trips and VMT

| Phase Name | Trip Type | Model Parameter | Default Value | New Value |
|---|-----------|-----------------------|---------------|-----------|
| Mobilization, Demolition, Clear and Grub | Worker | One-Way Trips per Day | 12.5000 | 14.0000 |
| Mobilization, Demolition, Clear and Grub | Worker | Miles per Trip | 12.9500 | 11.7000 |
| Mobilization, Demolition, Clear and Grub | Vendor | Miles per Trip | 6.94000 | 8.40000 |
| Mobilization, Demolition, Clear and Grub | Hauling | One-Way Trips per Day | 3.80000 | 22.0000 |
| Mobilization, Clear and Grub | Worker | One-Way Trips per Day | 7.50000 | 8.00000 |
| Mobilization, Clear and Grub | Worker | Miles per Trip | 12.9500 | 11.7000 |
| Mobilization, Clear and Grub | Vendor | Miles per Trip | 6.94000 | 8.40000 |
| Excavation, Foundation | Worker | Miles per Trip | 12.9500 | 11.7000 |
| Excavation, Foundation | Vendor | Miles per Trip | 6.94000 | 8.40000 |
| Excavation, Foundation | Hauling | One-Way Trips per Day | 0.61350 | 2.00000 |
| Construct Cleanwater Center and Utility Connections | Worker | One-Way Trips per Day | 9.86560 | 10.00000 |
| Construct Cleanwater Center and Utility Connections | Worker | Miles per Trip | 12.9500 | 11.7000 |

| | | | | |
|---|---------|-----------------------|---------|---------|
| Construct Cleanwater Center and Utility Connections | Vendor | Miles per Trip | 6.94000 | 8.40000 |
| Landscaping, utility Connections, Paving, Fencing | Worker | One-Way Trips per Day | 15.0000 | 16.0000 |
| Landscaping, utility Connections, Paving, Fencing | Worker | Miles per Trip | 12.9500 | 11.7000 |
| Landscaping, utility Connections, Paving, Fencing | Vendor | Miles per Trip | 6.94000 | 8.40000 |
| Landscaping, utility Connections, Paving, Fencing | Hauling | One-Way Trips per Day | 4.48182 | 6.00000 |
| Architectural Coating | Worker | One-Way Trips per Day | 1.97312 | 2.00000 |
| Architectural Coating | Worker | Miles per Trip | 12.9500 | 11.7000 |
| Architectural Coating | Vendor | Miles per Trip | 6.94000 | 8.40000 |

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

| Land Use | Model Parameter | Units | Default Value | New Value |
|-------------------------|-------------------|----------|---------------|-----------|
| General Office Building | Weekday Trip Rate | size/day | 9.74000 | 2.65975 |

8.5.3. Energy Usage

| Land Use | Model Parameter | Units | Default Value | New Value |
|-------------------------|---------------------------------------|---------|---------------|-----------|
| General Office Building | Natural Gas | kBTU/yr | 732,221 | 0.00000 |
| General Office Building | Natural Gas (Subject to Title 24) | kBTU/yr | 576,282 | 0.00000 |
| General Office Building | Natural Gas (Not Subject to Title 24) | kBTU/yr | 155,939 | 0.00000 |