City of Clearlake

Clearlake Airport Redevelopment Project

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH #: 2024070264

June 2026

City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422

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1 INTRODUCTION

1.1 Introduction

This Draft Environmental Impact Report (DEIR or Draft EIR) was prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), Pub. Res. Code §§ 21000-21178, as amended (CEQA), and the Guidelines for Implementation of the California Environmental Quality Act, Cal. Code Regs. title 14, §§ 15000-15387 (CEQA Guidelines). The City of Clearlake is the lead agency for the environmental review of the Airport Redevelopment Project ("Proposed Project" or "Project") and has the principal responsibility for approving the project. As required by Section 15121 of the California Environmental Quality Act Guidelines (CEQA Guidelines), this EIR assesses the potential environmental impacts resulting from approval, construction, and operation of the proposed project, and identifies feasible means of minimizing potential adverse environmental impacts.

1.2 Project Description

The Proposed Project is a conceptual development plan, or master plan, that would develop the 49-acre former airport site with a mix of uses, potentially including but not limited to healthcare facilities, multifamily housing, retail, restaurants, and public open space (54-acres when including all properties). The Proposed Project would also include infrastructure improvements, including roads, utilities, sewer lines, water lines, storm water management, parking lots, streetlights, and landscaping. Active transportation improvements such as bus shelters/pullouts, sidewalks, bicycle lanes, and multi-modal paths are also proposed. Water would be provided by the Highlands Water Company south of 18th Avenue and the Konocti County Water District north of 18th Avenue. For planning purposes, a Preferred Site Plan was prepared and is evaluated throughout this Draft EIR (see Figure 3-8 in Chapter 3). Sewer service would be provided by the Lake County Sanitation District (LACOSAN). The Proposed Project also includes Design Standards to ensure aesthetic and functional consistency across the development area. Project phasing would be sequenced through and dependent on the City's or future developer's acquisition of adjacent properties as they become available.

In order to develop the site, the Proposed Project requires a Zoning Map Amendment to add a Planned Development zoning overlay district to the site (ZMA 2024-01 Amendment); a Planned Development approval (PD 2024-01); and the certification of an Environmental Impact Report (EIR 2024-01). See Chapter 3, Project Description, of this EIR for further project information details.

1.3 Purpose of the EIR

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues.

The EIR is an informational document that describes for decisionmakers and the general public the potential significant environmental effects of a proposed project. An EIR must identify possible means to minimize the significant effects and describe a reasonable range of feasible alternatives to the project. The lead agency for this project, the City of Clearlake, is required to consider the information in the EIR along with any other available information in making a decision. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts.

1.4 Use of Clearlake General Plan

The City of Clearlake adopted its current General Plan by Resolution 2017-10, on February 28, 2017. Pursuant to CEQA Guidelines Section 15125(d), an EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans. The General Plan EIR evaluated the development of the project site as a regional commercial shopping center. Accordingly, this EIR addresses the proposed project's consistency with the City's adopted 2017 General Plan.

CEQA Baseline and Streamlining

Based on projected growth rates the General Plan estimates that by 2040, an additional 2,314 housing units and 682,944 square feet of commercial building area will be built. The economic analysis in the General Plan concluded that the 2040 General Plan Land Use Map provides sufficient land use and acreage to accommodate this growth and that the land use mix identified in the Land Use Map adequately provides for additional economic development opportunities beyond 2040.

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 500,000 square feet of commercial building area, using the assumptions of the General Plan EIR traffic analysis. Full buildout of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Under the project's "Preferred Site Plan," a maximum of 410,000 square feet of commercial and medical land uses could be developed throughout the site, including 37,000 square feet devoted to mixed use commercial and multiple family residential with a maximum 250 new dwelling units. Each of the environmental category review sections of this EIR will include a discussion of

environmental impacts from the peculiar characteristics of the project as compared to the baseline development scenario of the General Plan.

1.5 EIR Process

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies, and when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR), which ensures that responsible State agencies reply within the required time. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the project. Applicable agencies have 30 days to respond to the NOP, indicating, at minimum, reasonable alternatives and mitigation measures they wish to have explored in the Draft EIR and whether the agency will be a responsible agency or a trustee agency for the project.

As soon as the Draft EIR is completed, a notice of completion is filed with the OPR and a public notice is published to inform interested parties that a Draft EIR is available for agency and/or public review and to provide information regarding location of drafts and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a specified period, typically 45 days, during which time reviewers may make comments. The lead agency must evaluate and respond to comments in writing.

Once the lead agency is satisfied that the EIR has adequately addressed the pertinent issues in compliance with CEQA, a Final EIR will be prepared comprised of the Draft EIR, comments, responses to comments, and any errata and/or changes. The Final EIR is a public document, and is available for review by the public or commenting agencies. Before approving a project, the lead agency must certify that the Final EIR has been completed in compliance with CEQA; has been presented to the decision-making body of the lead agency; has been reviewed and considered by that body, and that the Final EIR reflects the lead agency's independent judgment and analysis.

An NOP was prepared for the proposed project (see Appendix A) and was circulated from July 10, 2024, to August 9, 2024. A public scoping meeting was held on July 23, 2024, for the purpose of informing the public and receiving comments on the scope of the issues to be addressed in the EIR. Comments provided by public agencies and the general public in response to the NOP were received by the City of Clearlake and are provided in Appendix B. See Section 1.6 below for a summary of the comments received on the NOP.

In addition, the City of Clearlake hosted an open house on February 21, 2024, in the Council Chambers and solicited comments via email to collect community input on the Proposed Project and potential impacts. Comments received were collated and used in Project design work, including the incorporation of active transportation connectivity throughout the site, community gathering places, and the development of opportunities for restaurants.

The Draft EIR will be circulated for a 45-day public review period. Comments received during the comment period will be addressed in the Final EIR. The City of Clearlake Planning Commission, in accordance with CEQA, will review the Draft and Final EIR prior to certification.

Before approving a project for which a certified Final EIR has identified significant environmental effects, the lead agency must make one or more specific written findings for each of the identified significant impacts. These findings are limited to the following:

- Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR (CEQA Guidelines, Section 15091[a]).

If significant environmental effects remain, even with the adoption of all feasible mitigation measures or alternatives, the agency must adopt a "statement of overriding considerations" before the agency can proceed with the project. The statement of overriding considerations must be supported by substantial evidence in the record (CEQA Guidelines, Sections 15092 and 15093). These overriding considerations include the economic, legal, social, technological, or other benefits of the proposed project. The lead agency must balance these potential benefits against the project's unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the lead agency may consider the adverse environmental impacts to be "acceptable" (CEQA Guidelines, Section 15093 [a]). These benefits should be set forth in the statement of overriding considerations and may be based on the Final EIR and/or other information in the record of proceedings (CEQA Guidelines, Section 15093[b]).

1.6 Scope of the EIR

State CEQA Guidelines Section 15126.2(a) states, in pertinent part:

> An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

CEQA Guidelines Section 15128 provides that "[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." Consistent with the requirements of CEQA, impacts resource areas outlined in the CEQA Appendix G Environmental

Checklist Form that will not be evaluated in this EIR are described below, with the reasons for their dismissal from further analysis.

> *Agriculture (a-e):* According to the Lake County Important Farmland Map prepared by the California Department of Conservation, the site is designated Urban and Built-Up Land. The nearest farmland is located in the community of Lower Lake, approximately 0.5 mile south of the project site. As such, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. In addition, the project area is not under any Williamson Act contract and the area is not designated, zoned, or prezoned for agricultural uses. Furthermore, the project area does not contain any State-defined timber resources, is not considered forest land or timberland, and is not zoned Timberland Production. As such, the project would result in *no impact* related to agricultural or forest resources.
>
> *Mineral Resources (a-b)*: The proposed project site is not located in an area containing any known mineral resources and is not designated as a Mineral Resource Zone (MRZ). Therefore, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site, and *no impact* to mineral resources would occur.

All remaining issues are discussed further within the chapters of this EIR. The evaluation of effects is presented on a resource-by-resource basis in Chapter 4.1 through 4.14. The following environmental issue areas have been identified for study in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases, Climate Change and Energy
- Hazards, Hazardous Materials and Wildfire
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Utilities
- Transportation and Circulation
- Tribal Resources

Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, General Plan Evaluation, Conclusions, and Impacts and Mitigation Measures. This EIR evaluates the existing environmental resources in the vicinity of the project site, analyzes potential impacts resulting from the proposed project, and identifies mitigation measures that could avoid or reduce their magnitude. Impacts that are determined to be significant in Chapters 4.1 through 4.14, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable.*

Chapter 5 of the EIR presents a discussion and comprehensive list of all significant and unavoidable impacts identified in Chapters 4.1 through 4.11.

1.7 Summary of Comments Received on the NOP

During the open comment period, the City of Clearlake received nine (9) comment letters on the NOP. A copy of each letter is provided in Appendix B of this EIR. In addition, verbal comments were received at the public scoping meeting that was held on July 23, 2024. The verbal comments are contained within a written meeting summary that is also included in Appendix B to this EIR. The following letters and scoping meeting comments were authored by representatives of State and local agencies and other interested parties:

Agencies

- Caltrans – Jesse Robertson, System Planning & Local Development Review
- California Department of Fish & Wildlife – Tanya Sheya, Environmental Program Manager
- Central Valley Regional Water Quality Control Board – Peter G. Minkel, Engineering Geologist
- City of Clearlake Building Department – Mary Jane Montana
- County of Lake Health Services – Christina Gearhart, Environmental Health Division
- Highlands Mutual Water Company – Tina M. Wallis, Partner, Frost Brown Todd Attorneys
- Lake County Fire Protection District – Autum Lancaster, Fire Marshal/FF Paramedic
- Lake County Special Districts – Lori A. Baca, Customer Service Supervisor
- Native American Heritage Commission – Cameron Vela, Cultural Resources Analyst

Organizations

- Koi Nation of Northern California – Robert Geary, Cultural Resources Director/Tribal Historic Preservation Officer

Individuals

- D. Hughes
- E. Davis
- K. Davis

Comment Letters Received

The following list, categorized by issue, summarizes the concerns expressed in the NOP comment letters, as well as comments received during the NOP scoping meeting held on July 23, 2024. The list indicates the chapter in which the issues and concerns are addressed:

Introduction to the Analysis (*c.f.* Chapter 4.0-Sections)	Concerns related to: • Tiering the EIR off the General Plan under CEQA Section 15183
Cultural Resources (*c.f.* Section 4.4) and **Tribal Cultural Resource** *(c.f.* Section 14*)*	Concerns related to: • The disturbance of cultural resources • The disturbance of human remains • The disturbance of prehistoric sites
Hazards and Hazardous Materials (*c.f.* Section 4.6)	Concerns related to: • Possible septic systems onsite that have not been properly abandoned • Lack of well permits on file • Impacts related to wildland fires, including meeting fire flow, hydrant, and emergency access requirements
Hydrology and Water Quality (*c.f.* Section 4.7)	Concerns related to: • Early identification of water supply provider so as to be evaluated in the EIR • Provision of a Water Supply Assessment under SB 610 • Water supply analysis tiering off General Plan EIR, which uses a 2006 document for water supply analysis • Inclusion of discussion of Regional Water Board's groundwater authority under the Sustainable Groundwater Management Act • Tiering off the General Plan EIR for the hydrologic analysis • Operational impacts from storm water runoff off addition of impervious surfaces across site • Filtering of storm water runoff prior to exiting site to prevent impacts to water quality • Operational impacts from maintenance of any filtering mechanisms within parking lots/across site • Adhering to the Basin Plan, Waste Discharge Requirements, Storm Water Pollution Prevention Plan requirements, Section 404 requirements, and Section 401 requirements
Land Use and Planning (*c.f.* Section 4.8)	Concerns related to: • Shading over parking areas • Type of parking (above or below ground, structure parking, etc.) • Ability to be flexible in development implementation as project builds out

- Type of housing being proposed, whether low-income
- Coordination with airport and whether the site should be planned for airport use

Public Services and Utilities (*c.f.* Section 4.10)

Concerns related to:

- Impacts related to wildland fires, including meeting fire flow, hydrant, and emergency access requirements
- Impacts of project on service demands, equipment, and Fire Station 71

Transportation and Circulation (*c.f.* Section 4.11)

Concerns related to:

- Pedestrian bridge ownership, maintenance, and timing of construction
- Evaluation of environmental impacts of the pedestrian bridge in the EIR
- Improvement of the State Route 53/18th Avenue and State Route 53/Dam Road intersections to accommodate pedestrian/bicycle crossings
- Pedestrian bicycle/facility connections to Caltrans facilities
- Inclusion of the southern area of development not included in the Project in the EIR analysis
- Future improvements at State Route 53 included in cumulative analysis
- Preparation of a traffic study in coordination with Caltrans
- Impacts to State Route 53
- Impacts to Old Highway 53
- A desire to divert traffic to 18th Avenue rather than having majority of traffic on Old Highway 53
- Traffic impacts to surrounding land uses
- Improvements to nearby intersections and roadways, including but not limited to Old Highway 53
- Additional ingress/egress to and from site

1.8 Organization of the EIR

Chapter 1 – Introduction

Chapter 1 provides an introduction and overview describing the intended use of the EIR and the review and certification process, as well as summaries of the chapters included in the EIR and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

Chapter 2 – Executive Summary

Chapter 2 summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. Acknowledges alternatives that could reduce or avoid significant impacts.

Chapter 3 – Project Description

Chapter 3 provides a detailed description of the proposed project, including location, background information, major objectives, and technical characteristics.

Chapter 4 – Environmental Setting, Impacts and Mitigation

Chapter 4 contains a project-level and cumulative analysis of environmental issue areas associated with the proposed project. Each environmental issue section
contains an introduction and description of the project setting, identifies impacts, and recommends appropriate mitigation measures, if needed.

Chapter 5 – Statutorily Required Sections

Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of potential growth-inducing impacts, cumulative impacts, energy conservation, significant irreversible environmental changes, and significant unavoidable impacts.

Chapter 6 – Alternatives Analysis

Describes the alternatives to the proposed project, their respective environmental effects, and a determination of the environmentally superior alternative.

Chapter 7 – EIR Authors / Persons Consulted

Chapter 7 lists EIR and technical report authors who provided technical assistance in the preparation and review of the EIR.

Chapter 8 – References

Chapter 8 provides bibliographic information for all references and resources cited.

Chapter 9 – Mitigation Monitoring and Reporting Program

Chapter 8 provides a summary of mitigation measures identified in the analysis.

Appendices

Includes the NOP, comments received during the NOP comment period, and all technical reports prepared for the proposed project.

2 EXECUTIVE SUMMARY

2.1 Introduction

The Draft Environmental Impact Report (Draft EIR) for the Clearlake Airport Redevelopment Project was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses the potentially significant environmental impacts of a project. CEQA requires that an EIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency). The City of Clearlake (City) is the lead agency for the proposed The Clearlake Airport Redevelopment Area EIR. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible and have the obligation to balance economic, environmental, and social factors.

This Draft EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the Clearlake Airport Redevelopment Project. This Draft EIR also discusses alternatives to the proposed Project and proposes mitigation measures that would offset, minimize, or otherwise avoid potentially significant environmental impacts. This Draft EIR is intended to provide decision-makers and the public with information that enables consideration of the environmental consequences of the Clearlake Airport Area Redevelopment project, and has been prepared in accordance with CEQA (California Public Resources Code [PRC] § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3).

The City's preliminary analysis determined that implementation of the Project would have the potential to result in significant environmental impacts under several environmental topic areas. This determination was based in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The NOP and written comments received by the City in response to the NOP, are attached to this EIR as Appendix A. The environmental topic areas that have the potential to be significantly affected by planning, constructing, and/or operating the Project and that are analyzed in detail herein include:

1. Aesthetics
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Geology and Soils
6. Greenhouse Gases, Climate Change and Energy
7. Hazards, Hazardous Materials and Wildfire
8. Hydrology and Water Quality
9. Land Use and Planning
10. Noise
11. Population and Housing
12. Public Services and Utilities
13. Transportation and Circulation
14. Tribal Resources

Refer to EIR Chapter 4.0, Environmental Setting, Impacts and Mitigation, for a full account and analysis of the subject matters listed above. For each of the subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was published (July

10, 2024); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse environmental impacts that may result from the Project. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City to lessen or avoid these impacts is included in this Executive Summary as Table 2-2, Summary of Project Impacts and Mitigation Measures. The City applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City to monitor and enforce, 3) are legal for the City to impose, 4) have an essential nexus to the Project's impacts, and 5) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

2.2 Type of EIR

The project includes a Development Manual which was prepared and adopted in accordance with Chapter 18.15 of the City of Clearlake Zoning Code, Planned Development. The Development Manual includes procedures, standards and design guidelines for development of the entire project area (refer to Appendix C). As development is phased over a 20+ year timeline, improvements will be required to be consistent with the Development Manual. This EIR was prepared as a Program EIR in accordance with Section 15168 of the CEQA Guidelines, but also a Project EIR in accordance with Section 15161 of the CEQA Guidelines. This provides flexibility for subsequent environmental review of development projects by allowing the City to evaluate subsequent development projects that are constructed consistent with the Development Manual.

The EIR evaluated impacts to the development impact/characteristics/intensity of the Development Manual but also, the project was evaluated in relation to the General Plan which identified development on the project site as a regional shopping center. Therefore, in each environmental category reviewed, the EIR compares impacts to how the General Plan and related General Plan EIR contemplated for the project site. Also, the specific project impacts from subsequent development was also evaluated in the EIR based on how the project is contemplated for development in the Development Manual. With this approach, this EIR looks at project development broadly, in terms of a program EIR allows subsequent phased development of the project "tiering" from the General Plan and General Plan EIR but also analyzes impacts at a development level related to the Development Manual.

2.3 Project Overview

2.3-1 Location and Setting

The 54-acre Project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map). The project site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 3-2, Project Location Map). The project site consists of 36 parcels ranging in size from about 4,600 square feet to over 682,000 square feet with approximately 3-acres of existing public right-of-way. Over 96 percent of the site has been disturbed from previous activities such as a previous airport and is partially being used as a City corporation yard and animal control facility. However, most of the Project site is vacant (see Figure 3-4).

The site is surrounded by single family houses and a church to the northwest, single family houses and some commercial to the south and southeast, Highway State Rough (SR) 53 to the east a mix of residential, a park, some commercial and industrial uses and vacant land to the west. The Proposed project consists of a mixed-use development with a combination of commercial, residential, medical, and other uses as described in Table 2-1 below.

Table 2-1: Airport Redevelopment Project Land Use Summary

	Zone	Preferred Site Plan Maximum Gross Square Feet (GSF)/ Densities	Total Acres per Land Use
Commercial Uses			
Hotel, general commercial, fast-food	PD-1	56,402 GSF	4.69[1]
General commercial, fast-food	PD-2	186,979 GSF	13.4
General commercial, fast-food, gas station	PD-3	55,600 GSF	5.34
Total Commercial Uses		*284,402 GSF*	*23.43 acres*
Medical Uses			
Medical office, hospital	PD-2	137,500 GSF	11.17
Total Commercial & Medical Uses[2]		*436,481 GSF*	*34.6 acres*
Multi-Family			
Townhomes, apartments, condos	PD-1	196 units	4.25
Apartments, condos	PD-2	54 units	1.9
Total Multi-Family		*250 units*	*5.64 acres*
Open Space			
	All	-	4.54 acres
Roadway Right-of-Way			
	All	-	8.7 acres
TOTAL			**54± acres**

[1] For PD Zones 1 and 2, all land use acreage for mixed uses was assigned to commercial.
[2] Commercial uses are allowed in lieu of medical uses in Table 3-4 "Allowable Land Uses" for PD-2,but are shown as medical uses in this table as they are in the Preferred Site Plan.

2.3-2 Project Summary

Development of the Project would result in new mixed-use hub and destination gathering space for this area of Clearlake, transforming the former Pearce Airport and public works corporation yard into a regional destination that provides medical, hospitality, residential, shopping and restaurant venues. The various parcels within the development would be connected by new multi-modal streets and pedestrian networks, offering parks, pathways, a central plaza, and public market food hall and event space. In summary the project would involve phased development of approximately 436,500 square feet of commercial and health care uses, and 250 multi-family dwelling units on about 54 acres. It is best described in the Development Manual which provides a complete description of the project's contemplated mixed land uses and development objectives (see Appendix C).

The Project also includes associated site improvements, including vehicular and non-vehicular circulation, parking facilities, and transit facilities; parks and recreational facilities; landscaping and streetscape improvements; monuments, entry features, and signage; walls and fences; lighting and mechanical equipment; and utility infrastructure (on- and off-site). Refer to EIR Chapter 3.0, Project Description, for a detailed description of the Project.

The principal discretionary actions include:

- Planned Development approval
- Zoning Map Amendment to add a Planned Development zoning overlay district to the site
- Encroachment permits for work within City right of way
- Building permit approval
- Grading permit approval

2.3-3 Project Objectives

The objectives that have been established for the Clearlake Airport Area Redevelopment project are listed below.

- Develop a destination for visitors and community by attracting jobs and commerce to the area
- Create a City of Clearlake identity at the South Gateway and a new City brand with street improvements, park improvements, and existing business improvement initiatives
- Maintain visibility along State Route (SR) 53
- Create a pleasant and attractive appearance that complements the surrounding area with the use of drought-tolerant and water-efficient landscaping and architectural designs that support and enhance community character
- Minimize impacts to adjacent land uses through appropriate design
- Provide walkable retail, services, and public space, and minimize travel lengths, and accommodate all transportation types, including vehicles, pedestrians, bicyclists, and transit users
- Develop a fiscally beneficial project that provides sufficient revenues to maintain municipal services

- Minimize environmental impacts to the maximum extent possible
- Promote local businesses and develop retail stores that will accommodate the retail demands of the community and diversify products and services offered
- Provide sufficient on- and off-street parking to ensure that adequate parking is provided for store customers and employees
- Provide significant economic benefits to the City and community in terms of diverse employment opportunities and increased sales tax revenues

2.3-4 EIR Process

The City published a NOP and filed a copy with the California Office of Planning and Research (OPR) SCH to inform the general public, trustee and responsible agencies, and other interested parties that an EIR would be prepared for the Project. The NOP was distributed for a 30-day public review period, which began on July 5, 2024. The City received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR. The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on July 23, 2024.

This EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. Prior to the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to public agencies and interested organizations and individuals; an advertisement will be published in the Lake County Record Bee (a newspaper of general circulation in the City); and copies of the Draft EIR will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments it received on the environmental effects of the Project. hereafter, the Final EIR will be considered for certification by the Clearlake City Council. Certification of the Final EIR would be accompanied by the adoption of written findings and a "Statement of Overriding Considerations" for any significant unavoidable environmental impacts identified in the Final EIR. In addition, pursuant to PRC Section 21081.6, because the Project will include mitigation measures, the City, as Lead Agency, must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.

2.3-5 Areas of Controversy and Issues to be Resolved

CEQA Guidelines Section 15123(b)(2) requires the Lead Agency (City of Moreno Valley) to identify any known issues of controversy in the Executive Summary. After consideration of all comments received in response to the NOP, the City has not identified any environmental issues of controversy associated with the Project. Notwithstanding, this EIR addresses all environmental issues that are known by the City and that were identified in the comment letters that the City

received in response to the NOP (refer to EIR Appendix B). Items raised in written comments to the NOP are summarized in Table 1-1, Summary of NOP and Scoping Meeting Comments, in EIR Chapter 1.0, Introduction. Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With respect to the Project, the key issues to be resolved include decisions by the City as Lead Agency, as to whether:

- This environmental document adequately describes the potential environmental impacts of the Project.
- The recommended mitigation measures should be modified and/or adopted.
- The Project benefits override those environmental impacts that cannot be feasibly avoided or mitigated to a less than significant level.
- There are other mitigation measures that should be applied to the Project besides those identified in this EIR.
- There are any alternatives to the Project that would substantially lessen any of its significant impacts while achieving most of the basic Project objectives.

2.4 Alternatives

In accordance with Section 15126.6 of the State CEQA Guidelines, Chapter 6.0, Alternatives, of this EIR addresses alternatives that can eliminate or reduce the potentially significant impacts of the Project. EIR Section 6.0 provides descriptions of each alternative, a comparative analysis of the potential environmental effects of each alternative to those associated with the Project, and a discussion of each alternative's ability to meet the Project objectives. Following is a summary description of the alternatives evaluated in this EIR. For a more detailed discussion of these alternatives and the relative impacts associated with each alternative compared to the Project, refer to EIR Chapter 6.0, Alternatives.

As required by CEQA, EIR Chapter 6.0 also identifies alternatives considered but eliminated from detailed analysis, and the environmentally superior alternative.

2.4-1 No Project /No Development Alternative

The "No Project/No Development" Alternative considers no development on the Project site. Under this Alternative, the approximately 69.6 gross acre Project site would remain undeveloped and would be subject to routine maintenance. The existing site, which has some non-residential buildings/uses such as the City's Animal Control building with some public works operations and a building used for storage by the Lake County Fire Protection District, a glass shop and two small storage buildings. This Alternative was used to compare the environmental effects of the Project with an alternative that would leave the Project site in its existing state. Alternative assumes no change in the existing environment and would result in a continuation of existing conditions on the site.

2.4-2 2040 General Plan Alternative

The 2040 General Plan, adopted in 2017, identifies the project site as a Regional Shopping Center and Key Growth Area to the City, designating the entire site 54-acre site for commercial land use and development. This alternative consists of development of 540,500 square-feet of building area, including 535,500 square-feet of commercial retail and three dwelling units.

2.4-3 Reduced Development Intensity and Density Alternative

This Reduced Intensity Alternative (RIDA) description is based on reducing overall environmental impacts across the board. This alternative was derived from evaluating different level of impacts from air quality, which under the Proposed Project results in significant and unavoidable for Air Quality Impacts, specifically, Reactive Organic Gases (ROG) and Nitro Oxides (NOX) for ROG and NOG air emissions. The RIDA was designed to reduce these air emissions to a level of less than significant. With this alternative, all identified environmental impacts from the CEQA Guidelines G would be mitigated to a level of less than significant. From this alternative, other impacts were also assessed comparatively with the Proposed Project. The RIDA is described as follows:

- Regional shopping center, 149,250 sf
- Sit down restaurant, 10,000 sf
- Fast food, 4,000 sf
- Hotel and meeting room, 48,402 sf
- Amphitheater, 6,000 sf
- 100 residential units (86 apartments and 14 condos)
- 11.93 ac. landscaping included as maintenance of "grazing land" for carbon sequestration
- Conserve all oaks (3.65 ac)
- Remove convenience market with gas pumps

2.5 Summary of Impacts, Mitigation Measures and Conclusions

2.5-1 Effects Not Found to be Significant

CEQA Guidelines Section 15128 requires that an EIR "…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." As discussed in EIR Chapter 1.0, Introduction, and as identified in the Notice of Preparation for this EIR the City determined that each of the impact categories identified in the CEQA Guidelines (Initial Study) should be evaluated in the Draft EIR. The only category that was not substantially evaluated in detail from Appendix G of the CEQA Guidelines that were found not to result in significant impacts;

agriculture and minerals. The reasons these were not further examined in the EIR are described in Section 1.5 of Chapter 1, Introduction. Therefore, no further analysis in the Draft EIR was warranted to address agriculture and minerals categories.

2.5-2 Impacts from the Proposed Project

Table 2-2 provides a summary of the Project's environmental impacts, as required by CEQA Guidelines Section 15123(a). Also presented are the mitigation measures recommended by the City to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in the following significant and unavoidable environmental effects:

Air Quality (Air Quality Management Plan [AQMP] Conflict).

The Project's operational source emissions would exceed the regional thresholds of significance for volatile organic compounds thresholds for Reactive Organic Gases (ROG) and Nitro Oxides (NOX) during project operations, primarily due to mobile vehicle emissions; thus, Project operational activities could contribute a substantial volume of pollutants to the Lake County Air (LCAB). Consequently, the Project is considered to have the potential to conflict with the Lake County Air Quality Management District (LCAQMD) standards, using BAAQMD's EQA significance thresholds of significance. Neither the Project nor the City have regulatory authority to control tailpipe emissions, no feasible mitigation measures beyond the measures identified in EIR Chapter 4.3, Air Quality, to reduce emissions to levels that meet the Air Quality Management Plan for thresholds of significance. Project impacts from project operation would be significant and unavoidable.

Air Quality (Cumulatively Considerable Increase in Criteria Pollutant During Operation).

After the application of mandatory regulatory requirements and feasible mitigation measures, maximum daily emissions from Project operations would exceed the regional thresholds of significance for volatile organic compounds thresholds for Reactive Organic Gases (ROG) and Nitro Oxides (NOX) during project operations when considering project build-out cumulatively with related growth and development within the City and regionally. Since the majority of the operational emissions are from vehicle trips and neither the Project nor the City have regulatory authority to control tailpipe emissions, no feasible mitigation measures beyond the measures identified in EIR Chapter 4.3, Air Quality, exist that would reduce emissions to levels that are less than significant. Project impacts from these project operations would be significant and unavoidable.

Table 2-2: Summary of Project Impacts and Mitigation Measures

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
4.1 **Aesthetics**			
Impact 4.1-1: Proposed project would result in a substantial adverse effect on scenic vistas.	Less than Significant	None Required	Less than Significant
Impact 4.1-2: Proposed project would result in a substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.	Less than Significant	None Required	Less than Significant
Impact 4.1-3: Proposed project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less than Significant	None Required	Less than Significant
Impact 4.1-4: Proposed project would result in cumulative effects on visual character, quality, and resources in the region.	Less than Significant	None Required	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
4.2 Air Quality			
Impact 4.2-1: Proposed project would conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None Required	Less than Significant
Impact 4.2-2: Proposed project would 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.	Potentially Significant	**Mitigation Measure 4.2-1:** Reduce Construction-Related NOX Emissions. The following notes shall be included on all grading and/or construction plans and shall be implemented accordingly during grading and/or construction operations. Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading and construction plans by the City of Clearlake Community Development Department. • All off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site. • Construction contractors shall utilize Tier 4 Final certified engines or better and Level 3 diesel filters during all phases of development. Compliance must be demonstrated with submittal the equipment inventory. • Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB. • The construction contractor must notify LCAQMD prior to beginning construction activities and prior to engine use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet reciprocating internal combustion	Significant and Unavoidable

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		engines (RICE) NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for compression ignition (CI, i.e., diesel) engines and must meet local regulations. **Mitigation Measure 4.2-2:** Reduce Construction-Related Fugitive Dust Emissions. The following measures shall be implemented for all grading and/or construction on the project site to reduce fugitive dust emissions and shall be implemented accordingly during grading and/or construction operations. Conformance with these requirements shall be included as notes on all construction plans and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department: • Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust. • Driveways, access roads and parking areas shall be surfaced in a manner that minimizes dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvements shall adhere to all applicable federal, State and local agency requirements. • Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District. • During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		• Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust and/or landscaped or hydro-seeded. All BMPs shall be routinely inspected and maintained for the life of the project. • Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls. • If construction or site activities are conducted within Serpentine soils, a Serpentine Dust Control Plan would be required. Any parcel with serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details. • Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. • Significant dust may be generated from increased vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilize water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limit • During construction, emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area, shall be controlled so that dust does not remain visible in the atmosphere beyond the boundary line of the emission source. • When wind speeds result in dust emissions crossing property lines, and despite the application of dust control measures, grading and earthmoving operations shall be suspended and inactive disturbed surface areas shall be stabilized. • All vehicle speeds on unpaved roads shall be limited to 25 mph. • Site development and vegetation disposal shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for groundcover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. **Mitigation Measure 4.2-3:** Reduce Operations-Related Emissions. Prior to the issuance of improvement and building permits, as relevant (i.e., infrastructure, residential, or commercial), documentation shall be provided to the City of Clearlake Community Development Department that the following measures have been achieved through project design: *Project-Wide Measures*	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		• Use energy-efficient lighting that will reduce indirect criteria pollutants and GHG emissions. Using energy-efficient lighting will reduce energy usage and, thus, reduce the indirect GHG emissions from the project. Energy-efficient lighting includes adaptive lighting systems or systems that achieve energy savings beyond those required by Title 24 lighting requirements to the maximum extent feasible. • Use low-flow appliances and fixtures. • Use drought-tolerant and native vegetation. • Use low VOC paint for parking areas and the interiors and exteriors of the both residential and non-residential buildings. • Provide sufficient bicycle parking per City standards. • Provide traffic calming measures as shown on the approved site plan. • Provide pedestrian network improvements, including sidewalks on all street frontages, as shown on the approved site plan. • Provide wildfire resilience and management site-wide through compliance with Public Resources Code 4291 and other local fire protection standards. • Require project contributions to transportation infrastructure improvements commensurate with project impacts. Residential Measures • Provide net zero renewable electrical energy through installation of solar photovoltaic systems consistent with the 2022 Building Energy Efficiency Standards. This may be achieved through the use of rooftop solar or proposed on-site photovoltaic systems, or the equivalent renewable energy source. • Use water efficient landscapes and native/drought-tolerant vegetation. • Use energy-efficient appliances in the residences where available. These include appliances that meet USEPA's Energy Star Criteria. • Use energy efficient residential boilers where applicable • Install electric ranges in place of propane-powered ranges	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		• Provide electric heaters only. Wood-burning devices and propane fireplaces shall be prohibited in residential development. • Install electric water heaters instead of propane water heaters. Commercial Measures • Install on-site charging units for electric vehicles consistent with parking requirements in California Green Building Standards Code Section 5.106.5.2. • Install energy-efficient commercial packaged boilers. • Install electric water heating instead of gas water heating for some or all of the project's hot water needs, to the extent such technology is readily available and commercially practicable.	
Impact 4.2-3: Proposed project will expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None Required	Less than Significant
Impact 4.2-4: Proposed project will result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than Significant	None Required	Less than Significant
Impact 4.2-5: Proposed project, in combination with other cumulative development, cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation, or expose the public to substantial pollutant emissions or odors.	Cumulatively Considerable	**Mitigation Measures 4.2-1 through 4.2-3 (See Impact 4.2-2)**	Cumulatively Considerable

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
4.3 Biological Resources			
Impact 4.3-1: Proposed project will have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW.	Potentially Significant	**Mitigation Measure 4.3-1:** Conduct pre-construction surveys for western burrowing owl. Prior to any earth disturbance and prior to the issuance of any grading permits within areas on the site determined to have potential marginal habitat for the Burrowing Owl (see Figure 4.3-8 Burrowing Owl Marginal Habitat Map), a California Department of Fish and Wildlife (CDFW)-approved biologist shall conduct pre-construction (i.e., take avoidance) surveys for western burrowing owl. The survey shall include two site visits: one within 14 days of construction start, and one within 48 hours of construction start. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines, which include the following: • Within the project area where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint, as accessible, to identify burrows and owls. • Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. • During the breeding season (February 1 – August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. • During the nonbreeding season (September 1 – January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. • If burrowing owl is detected on-site during preconstruction surveys or during construction, no ground-disturbing activities within a minimum 200-meter (approximately 656-foot) avoidance buffer shall occur around occupied burrows during the breeding season	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		(February 1–August 31), unless authorized by the California Department of Fish and Wildlife. During the non-breeding season (September 1–January 31), no ground-disturbing activities within a minimum 50-meter (approximately 164-foot) avoidance buffer shall occur around occupied burrows, unless authorized by CDFW. • If occupied burrow avoidance is infeasible during the non-breeding season or during the breeding season where resident owls have not yet begun egg-laying or incubation, or where the juveniles are foraging independently and capable of independent survival, CDFW shall be consulted to develop a Burrowing Owl Exclusion and Mitigation Plan. The plan shall differentiate strategies for active burrows found on the project site vs. active burrows found adjacent to the project site. For example, an Exclusion and Mitigation Plan strategy may include: - Passive exclusion of burrowing owl from burrows within the project site using one-way doors. - Excavation of potential burrowing owl burrows within the project site that are confirmed to be empty of burrowing owl adults and/or young. - Creation of artificial burrowing owl burrows within the project site to offset the loss of known occupied burrowing owl burrows. - Acquisition of burrowing owl conservation lands and/or bank credits. **Mitigation Measure 4.3-2:** Conduct pre-construction nesting surveys for migrating birds and raptors. This mitigation measure shall be placed as a note on all construction plans for woodland areas referenced on Figure 4.3-6, Woodland Areas of the Project Area and shall be implemented as follows: Development activities that occur during the breeding season could disturb or remove occupied nests of migratory birds or raptors, which could occur in any structures or vegetation on the site, including but not limited to grasses,	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		shrubs, and trees. If construction activities take place from September 2 through February 14 (outside the typical bird breeding/nesting season for the area), no further mitigation is required. If construction activities take place during the typical bird breeding/nesting season for the area (February 15 through September 1), then no more than seven days prior to initiation of construction, pre-construction nesting bird surveys at the project site shall be conducted by a qualified biologist and would be based on habitat type, habitat quality, and type of disturbance proposed within or adjacent to nesting habitat, but would be a minimum of 500 feet from any area of disturbance. If work stops for more than seven days during any part of the construction process, an additional pre-construction survey shall be required to meet these parameters within seven days of the onset of additional work. If any nesting raptors or protected birds are identified during such pre-construction surveys, trees, shrubs or grasslands with active nests should not be removed or disturbed and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a qualified wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. **Mitigation Measure 4.3-3:** Conduct pre-construction surveys for special-status bats. Prior to removal of any abandoned structure or trees within the project area and prior to the issuance of any demolition permit or tree removal permit, a pre-construction bat roosting survey prepared by a California Department of Fish and Wildlife (CDFW)-approved biologist shall be conducted to identify the presence or absence of roosting bats within any structures and within any woodlands. If any Townsend's big-eared bats, pallid bats, or long-eared myotis (or any other species of bat) are identified during roosting surveys, passive removal the roosting bats prior to disturbance to such structures or	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		removal of trees associated with the woodland where the bats are roosting shall be implemented to avoid impacts to any bat species. Passive removal includes allowing roosting bats to freely leave the roost site (and structure). Once the roosting bats have been passively removed from the structure(s), the structure(s) would be closed off from recurring bat roosting, if possible, within the structure, and the proposed work within the structure(s) would no longer pose a risk to individuals of the species. Pre-construction roosting bat surveys are recommended to be implemented within 7 days of the removal of trees associated within the woodlands in the northern or southern sections of the project area and prior to any disturbance within any existing structure.	
Impact 4.3-2: Proposed project will have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Potentially Significant	**Mitigation Measure 4.3-4:** Obtain a Lake or Streambed Alteration Agreement if needed. Prior to any disturbance of the identified defined drainages on the project site, a Lake or Streambed Alteration Agreement Application shall be entered into with California Department of Fish and Wildlife (CDFW) for their determination as to whether a permit would be required for the crossing. If the developer is not the City, the Project developer shall provide evidence of compliance with this measure to the City Planning Department prior to the issuance of any grading or improvement permits for the site. This mitigation measure shall be placed as a note on all construction plans.	Less than Significant
Impact 4.3-3: Proposed project will Interfere substantially with the movement of any native resident or migratory fish or wildlife species or	Potentially Significant	**Mitigation Measure 4.3-2** provides protections for migrating birds, ensuring consistency with the General Plan EIR (see Impact 4.3)	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.			
Impact 4.3-4: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.3-5: Proposed project will conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.	No Impact	None Required	No Impact
Impact 4.3-6: Proposed project will cumulative loss of biological resources and the effects of ongoing urbanization in the region.	Potentially Significant	**Mitigation Measures 4.3-1 through 4.3-5 (see Impacts 4.3-1 through 4.3-4)**	Less than Significant
4.4 Cultural Resources			
Impact 4.4-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section15064.5?	Potentially Significant	**Mitigation Measure 4.4-1:** During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of the discovery. Significant historical cultural materials may include finds from the late 19th and early 20th centuries including structural remains, refuse deposits, isolated artifacts, etc. The cultural resources consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.	
Impact 4.4-2: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Potentially Significant	**Mitigation Measure 4.4-2:** The City Community Development Department (Planning and Building Divisions) shall ensure that a contractor awareness training program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: A. Federal and state regulations pertaining to cultural resources and tribal cultural resources. B. The subsurface indicators of resources that shall require a work stoppage; procedures for notifying the City of any occurrences. C. Project-specific requirements and mitigation measures. D. Enforcement of penalties and repercussions for non-compliance with the program.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. The training will be completed once, prior to the start of all ground disturbing activities. All personnel who receive the training shall be required to sign a training roster. The Construction Manager shall provide a copy of the signed training roster for the City as proof of compliance.	
Impact 4.4-3: The proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries.	Potentially Significant	**Mitigation Measure 4.4-3:** If human remains are encountered, no further disturbance shall occur within 150 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains and associated cultural items shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Remains and associated cultural items shall be covered and protected from the elements, and no unauthorized individual may photograph remains or associated cultural items. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)" (MLD). The landowner shall engage in consultations with the MLD. The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner does not agree with the recommendations of the MLD, then the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		appropriate, determine that the treatment measures have been completed to their satisfaction.	
Impact 4.4-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and archaeological resources and/or human remains in archaeological contexts.	Potentially Significant	**Implementation of Mitigation Measures 4.4-1 and 4.4-3**.	Less than Significant
Impact 4.4-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and archaeological resources and/or human remains in archaeological contexts.	Potentially Significant	**Implementation of the Mitigation Measure 4.4-1 and 4.4-3.**	Less than Significant
4.5 Geology and Soils			
Impact 4.5-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seis-mic related ground failure, including liquefaction.	Potentially Significant	None required - Compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
Impact 4.5-2: Substantial soil erosion or the loss of topsoil.	Potentially Significant	**Mitigation Measure 4.5-1:** Obtain Coverage Under the Construction General Permit from the Central Valley Regional Water Quality Control Board. Given that the Project would, as a whole, disturb over one acre, and is a common plan of development, each pro-ject applicant shall obtain a SWPPP from the Central Valley Regional Water Quality Con-trol Board and provide it to the Building Department prior to the onset of any construction activities and prior to issuance of grading and improvement permits.	Less than Significant
Impact 4.5-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site land-slide, lateral spreading, subsidence, liquefaction or collapse.	Potentially Significant	None required - Compliance with regulations.	Less than Significant
Impact 4.5-4: Be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or proper-ty.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.5-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	Potentially Significant	**Mitigation Measure 4.5-2**. Paleontological Mitigation Plan for Areas shows in Figure 4.5-6. Any excavations exceeding five feet below ground surface with the Cache Formation (al) or the Lower Lake Formation (Il) shall first undergo review for paleontological resource mitigation. These areas are shown on Figure 4.5-6. Paleontological review shall be conducted by a Principal Investigator to include preparation of a mitigation plan for on-site subsurface geology. Necessary elements of the plan shall include paleontological monitoring, proper field recovery techniques, museum curation, and post-excavation reporting. The mitigation plan shall also include guidance for minimizing or	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		ending paleontological monitoring should local conditions prove unlikely to host significant fossils. Final engineering plans shall incorporate the paleontological mitigation plan. **Mitigation Measure 4.5-3.** Unanticipated Discovery of Paleontological Resources. If fossils or fossil-bearing deposits are encountered during ground-disturbing activities, work within a 100-feet radius of the find all construction/disturbance within this radius shall halt, the City Planning Department shall be notified, and a Qualified Professional Paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the Qualified Paleontologist.	
Impact 4.5-6: Cumulative geologic or soils impacts related to risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction; substantial soil erosion or the loss of topsoil; substantial direct or indirect risks to life or property from expansive soils.	Potentially Significant	**Implementation of Mitigation Measure 4.5-1**	Less than Significant
Impact 4.5-7: In combination with other cumulative development, directly or indirectly destroy a	Potentially Significant	**Implement Mitigation Measures 4.5-1 and 4.5-2.**	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
unique paleontological resource or site or unique geologic feature.			
4.6 Greenhouse Gasses, Climate Change and Energy			
Impact 4.6-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant	**Mitigation Measure 4.6-1:** Implement Off-Street Electric Vehicle Requirements in CalGreen Tier 2. Prior to issuance of building or improvement permits, the project shall meet the following requirements as applicable: Residential Requirements: Hotels, motels, and multifamily projects with 20 or more units: • EV Ready: 55% of all off-street parking spaces must have a low-power Level 2 (208/240-volt, 20-amp) charging receptacle installed. • Installed chargers: 20% of all off-street parking spaces must be equipped with installed Level 2 (208/240-volt, 40-amp) chargers. Multifamily projects and hotels or motels with fewer than 20 units: • EV Ready: 55% of all off-street parking spaces must be equipped with low-power Level 2 charging receptacles. • Installed chargers: For projects with fewer than 20 units, the code requires installed chargers only if there are 20 or more parking spaces for residents and guests, in which case 20% must be equipped with Level 2 chargers. Nonresidential Requirements Given that the total number of parking spaces for the overall Project is over 200, project development must meet the following criteria: Total number of parking spaces (201 and over): • EV Ready: 45% of the total off-street parking spaces must be EV capable.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		• Installed chargers: 33% of the total EV capable spaces must be provided with installed Level 2 EVSE (Electric Vehicle Supply Equipment) chargers. •	
Impact 4.6-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Potentially Significant	**Implement Mitigation Measures 4.2-1 and 4.6-3.**	Less than Significant
Impact 4.6-3: Result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Potentially Significant	**Implement Mitigation Measure 4.2-1.**	Less than Significant
Impact 4.6-4: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.6-5 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	Potentially Significant	**Implement Mitigation Measures 4.2-1 and 4.6-1.**	Less than Significant
Impact 4.6-6: Cumulative impacts due to increased energy use.	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
4.7 Hazards, Hazardous Materials, and Wildfire			
Impact 4.7-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Potentially Significant	**Mitigation Measure 4.7-1:** Hazardous Materials Business Plan. Prior to building permit issuance for any use anticipating to store hazardous materials equal to or greater than 55 gallons (liquid), 500 pounds (solid), or 200 cubic feet (compressed gas), the applicant shall apply for and obtain a Hazardous Materials Inventory Disclosure Statement/Business Plan with the Lake County Environmental Health Division via the California Electronic Reporting System (CERS), and it shall be renewed and updated annually or if quantities increase. Hazardous materials shall not be allowed to leak onto the ground or contaminate surface waters. Hazardous materials shall be recycled or disposed of through a registered waste hauler to an approved site authorized to accept such materials. **Mitigation Measure 4.7-2:** Hazardous Waste Generator. If hazardous waste is generated in any quantity for any use, then prior to building permit issuance, the applicant shall be subject to regulation as a hazardous waste generator and shall apply for a one-time submittal to CERS and fees and inspection by the Lake County Environmental Health Division. **Mitigation Measure 4.7-3:** Retail Food Code Regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		Prior to building permit issuance for any retail food facilities, the applicant must apply and pay for plan check application for permitting approval from the Lake County Environmental Health Division. Food facilities must be permitted and inspected prior to opening to the public.	
Impact 4.7-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Potentially Significant	**Mitigation Measure 4.7-4:** Accidental Hazardous Materials Release. During project construction, should an accidental release of hazardous materials occur, the project developer/contractor shall cease operations and immediately notify the City of Clearlake Community Development Department and the Lake County Environmental Health Division and implement all appropriate remediation measures. **Mitigation Measure 4.7-5:** Handling of Hazardous Materials During Construction. Prior to ground disturbance due to Project development and prior to the issuance of any grading and/or building permits for the site, a Soils Management Plan (SMP) shall be submitted and approved by the City of Clearlake Community Development Department and the Lake County Environmental Health Division. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan. **Mitigation Measure 4.7-6:** Hazards Remediation. Prior to any ground disturbance and issuance of any grading permits for development on Parcels 1, 2, and 3, as cited by the Subsurface Investigation report by Ramboll US Consulting, Inc. for Project Number 1940106573-001 a soils investigation report shall be prepared and submitted for review and approval by the Lake County Environmental Health Department and the City of Clearlake Community Development Department to ensure that any contaminated soils are properly identified, excavated, and disposed of off-site (refer to Figure 4.7-3 for locations of	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		Parcels 1, 2, and 3). The subject project shall implement the recommendations of the report to reduce or substantially lessen the potentially significant environmental impacts of the project. Target concentrations of contaminants and remediation of all soils shall be at or below concentrations allowable (i.e., US EPA Maximum Contaminant Levels) for the specified use of the property (residential, commercial, or industrial), if applicable, and shall otherwise meet all federal, state and local requirements for remediation, to the satisfaction of the City Community Development Department and the Lake County Environmental Health Division. Mitigation may include but is not limited to proper abandonment of existing septic systems, wells, soils remediation, groundwater remediation, proper removal of any other hazardous materials and construction debris currently on the site. **Mitigation Measure 4.7-7:** Pole-Mounted Transformers. In the event of future release/leak of insulating fluids from on-site transformers, prior to grading and/or building permit issuance, the project developer/contractor shall contact PG&E regarding the testing of any on-site transformers for PCB fluids. If the transformers contain PCBs, the project proponent shall remove the transformers under proper permitting from PG&E, the City Community Development Department, and the Lake County Environmental Health Division. **Mitigation Measure 4.7-8:** Hazardous Building Materials (HBM) Remediation. If, during building modifications or replacement of existing equipment, equipment containing PCBs, mercury, or CFCs, are encountered, the City Community Development Department and Lake County Environmental Health Division shall be contacted, and all switches, ballast-containing materials, etc. shall be removed and carefully stored for possible reuse prior to disturbance of any area where HBMs are located. If these materials are not reused, then they shall be disposed and/or recycled in accordance with all applicable laws and regulations.	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		Mitigation Measure 4.7-9: Asbestos Remediation. Prior to any removal, remodeling, maintenance, or demolition activities affecting any of the existing onsite structures, and prior to building or demolition permit issuance, the project developer/contractor shall consult with certified Asbestos Risk Assessors to complete and submit for review to the City Community Development Department and the Lake County Environmental Health Division an asbestos survey prepared by such qualified professional. If asbestos-containing materials (ACMs) are not discovered during the survey, further mitigation related to ACMs will not be required. If ACMs are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos abatement contractor in accordance with Title 8 CCR 1529 regarding asbestos training, engineering controls, and certifications. The project developer/contractor shall submit the work plan to the City Community Development Department and the Lake County Environmental Health Division for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to Lake County Air Quality Management District (LCAQMD) approval.	
Impact 4.7-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.7-4: Impair implementation of or physically interfere with an adopted	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
emergency response plan or emergency evacuation plan.			
Impact 4.7-5: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.7-6: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; or, for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.	No Impact	None.	Non-significant
Impact 4.7-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.7-8: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones: substantially impair an adopted emergency response plan or emergency evacuation plan; due to slope, prevailing	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.			
Impact 4.7-9: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.7-10: Cumulative exposure to potential hazards associated with potentially contaminated soil and groundwater and an increase in the transport, storage, and use of hazardous materials	Potentially Significant	**Mitigation Measures 4.7-1 through 4.7-9.**	Less than Significant
4.8 Hydrology and Water Quality			
Impact 4.8-1: Conflict with or obstruct implementation of a water	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
quality control plan or sustainable groundwater management plan.			
Impact 4.8-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.8-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface run-off in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.8-4: Implementation of the proposed Project would not risk release of pollutants due to project	Non-significant	None.	Non-significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
inundation in flood hazard, tsunami, or seiche zones.			
Impact 4.8-5: Cumulative impacts related to violation of any water quality standards or waste discharge requirements, or substantial degradation of surface or ground-water quality.	Potentially Significant	None required - compliance with regulations.	Less than Significant
4.9 Land Use and Planning			
Impact 4.9-1: Physically divide an established community.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.9-2: Conflict, or create an inconsistency, with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.9-3: Conflict with any applicable habitat conservation plan or natural community conservation plan.	Non-significant	None.	Non-significant
4.10 Noise			
Impact 4.10-1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general	Potentially Significant	**Mitigation Measure 4.10-1.** Reduce Noise Impacts to Existing Residences from Proposed Recreational Facilities. Prior to grading and building permit issuance for any proposed active recreation facilities on the project, the proposals shall be reviewed by a qualified acoustical consultant to ensure that noise generated by such	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
plan or noise ordinance, or applicable standards of other agencies.		activities would not adversely affect existing residences in the vicinity. All projects will be required to meet the City's noise standards for sensitive uses and shall implement noise attenuation measures as needed to remain below the City's thresholds. **Mitigation Measure 4.10-2.** Reduce Construction Noise. Prior to issuance of grading and building permits, the following measures shall be incorporated into construction plans and implemented during on-site construction operations: • Noise-generating construction activities within the Plan area shall occur pursuant to the hours and days outlined in Clearlake Municipal Code. • All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition. • All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity. • Electric-powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible. • Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses. • Project area and site access road speed limits shall be established and enforced during the construction period. • Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels. • In the event that unusual circumstances or emergencies prevent certain project construction activities from complying with the Municipal Code Section 6.68.090(e), a noise control plan shall be	

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		developed to ensure that sufficient mitigation is implemented during project construction to ensure adverse noise impacts are avoided.	
Impact 4.10-2: Generate excessive ground-borne vibration or ground-borne noise levels.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.10.3: Be located within the vicinity of a private airstrip or an airport land use plan, within two miles of a public airport or public use airport, or expose people residing or working in the Project area to excessive noise levels.	Non-significant	None.	Non-significant
Impact 4.10.4: Combined with cumulative development expose existing noise-sensitive land uses to increased noise.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.10.5: Combined with cumulative development expose noise-sensitive us-es proposed within the project site to noise levels exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially Significant	**Mitigation Measure 4.10-3.** Reduce Noise Impacts to Proposed Residences Near SR 53 and Old Highway 53. Prior to building permit issuance for residential uses within 476 feet of the SR 53 centerline or within 88 feet of the Old Highway 53 centerline shall be re-viewed by a qualified acoustics consultant to ensure that traffic noise mitigation measures are included in the project design to achieve 60 dB DNL in outdoor activity areas of the residential uses. Such measures which may be utilized to achieve compliance with the City's 60 dB DNL exterior noise standard include, but would not be limited to, the following: • Shielding of outdoor activity areas of future residential uses by the residential structures, topography, or sound barriers.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		• Relocating outdoor activity areas beyond the distances identified above (i.e. the distances to the 60 dB DNL future traffic noise contours for SR 53 and Old Highway 53.	
4.11 Population and Housing			
Impact 4.11-1: Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.11-2: Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.	Non-significant	None.	Non-significant
Impact 4.11-3: Cumulative impacts related to an increase in population and displacement of housing.	Potentially Significant	None required - compliance with regulations.	Less than Significant
4.12 Public Services and Utilities			

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
Impact 4.12-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-2: Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
Impact 4.12-4: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry year and multiple dry years.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-5: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-5: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-6: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.12-7: Cumulative public services and utilities impacts related to the provision of new or physically altered governmental facilities.	Potentially Significant	None required - compliance with regulations.	Less than Significant
4.13 Transportation and Circulation			

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
Impact 4.13-1: Would the project conflict with a program plan, ordinance, or policy ad-dressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.13-2: Implementation of the proposed Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.13-3: Implementation of the proposed Project could substantially increase hazards due to a geometric design feature or incompatible uses.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.13-4: Will Implementation of the proposed result in inadequate emergency access.	Potentially Significant	None required - compliance with regulations.	Less than Significant
Impact 4.13-5: Implementation of the proposed Project, in combination with other cumulative development, would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT).	Potentially Significant	None required - compliance with regulations.	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
4.14 Tribal Cultural Resources			
Impact 4.14-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	Potentially Significant	**Mitigation Measure 4.14-1:** The City shall retain a tribal representative from a culturally affiliated tribe to provide a one-time paid initial worker awareness and cultural awareness training program on or just prior to the first day of construction, and at any time five (5) or more untrained workers are employed in ground disturbing activities at the site. All supervisors of contractors, subcontractors, project personnel, and workers involved in ground disturbing activities shall be briefed on the requirements for avoidance, preservation in place, and minimization and mitigation measures by receiving cultural awareness training by the consulting tribe, as well as the procedures for addressing unanticipated discovery and respectful treatment of Native American human remains and tribal cultural resources. **Mitigation Measure 4.14-2:** Prior to ground-disturbing activities commencing, the contractor shall install high-visibility exclusionary fencing to prevent ground disturbance within 50 feet of ACD-CR-01. A photograph of the installed fencing and a map indicating the photo point shall be submitted to the City Community Development Department as proof of compliance. Fence installation shall be monitored by a qualified professional archaeologist and, for tribal cultural resources, a culturally affiliated consulting tribe monitor, and inspected at least once per month by the City Community Development Department during active construction within the impacted area to ensure integrity of the fence line. Once all construction equipment and personnel have vacated the Project site, the exclusionary fencing may be removed. The contractor shall provide the City Community Development Department with documentation that the fence was installed, monitored, and removed in compliance with this measure. Tribal monitors from the culturally affiliated consulting tribe shall be present during the installation of the fence and during all Project activities within 100 feet of the resource. **Mitigation Measure 4.14-3:** No ground-disturbing work shall occur within boundaries of the Sensitive Site identified in the Cultural Resource	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
		Investigation. All ground disturbing activity within 100 feet of ACD-CR-01 shall be monitored by a qualified tribal monitor from the culturally affiliated consulting tribe. This includes, but is not limited to any fence installation, staging work, clearing and grubbing, grading, and trenching. The tribal monitor must be given a minimum of seven (7) days' notice of the opportunity to be present during these activities to observe work activities and assist in ensuring that sensitive tribal cultural resources are not adversely affected. The monitor shall be given a reasonable opportunity to inspect soil and other material as work proceeds to assist in determining if resources significant to the tribe are present. If a potential tribal resource is identified by the monitor, they may pause or redirect work temporarily in order to closely inspect the potential discovery. If the tribe cannot recommend a monitor or if the tribal monitor does not report at the scheduled time, all work may continue as long as the specified notice of seven (7) days was provided. Recovery of cultural items, reburial preparation, and reburial shall also be conducted under the direction of a culturally affiliated tribe.	
Impact 4.14-2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	Potentially Significant	**Mitigation Measure 4.14-1 and 4.14-3.**	Less than Significant

IMPACTS	LEVEL OF SIGNIFICANCE BEFORE PROJECT	MITIGATION MEASURES	LEVEL OF IMPACT AFTER MITIGATION
In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
Impact 4.14-3: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of tribal cultural.	Potentially Significant	**Mitigation Measure 4.14-1 through 4.14-3.**	Less than Significant

3 PROJECT DESCRIPTION

3.1 Introduction

Pursuant to CEQA Guidelines Section 15124, an EIR is required to include a project description that includes the following information: project objectives, project location, a general description of the project's technical, economic and environmental characteristics, and a statement briefly describing the intended uses of the EIR including a list of agencies expected to use the EIR, a list of permits and other approvals required to implement the project, and a list of related environmental review required by federal, state or local laws, regulations or policies. According to Section 15124 of CEQA Guidelines, the project description is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impacts.

Section 15125 of the CEQA Guidelines requires an EIR to include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation is published, from both a local and regional perspective. Knowledge of the existing environmental setting is critical to the assessment of environmental impacts. Pursuant to CEQA Guidelines Section 15125, the description of the environmental setting shall not be longer than necessary to understand the potential significant effects of the project and its alternatives.

The Project Description chapter of the EIR provides a comprehensive description of the Clearlake Airport Redevelopment Project ("Proposed Project" or "Project") in accordance with the CEQA Guidelines. Please note that this chapter provides an overall general description of the existing environmental conditions; however, detailed discussions of the existing setting in compliance with Section 15125 of CEQA Guidelines, as it relates to each given potential impact area, are included in each technical chapter of this EIR.

Notice of Preparation and Updated Project Area Changes: In accordance with Section 15082 of the CEQA Guidelines, a Notice of Preparation for this project was circulated for public review between July 5 and August 9, 2024, for the purpose of providing opportunity for public agency and public comments to help scope the EIR. As noted in the Introduction chapter of this EIR, the City received several comments from this circulation and also from a public scoping meeting the City held on this project on July 23, 2024. During that time the project consisted of approximately 47.5 acres. However, the project boundaries were expanded by about 6.5 acres to accommodate a 3-acre property to the north for a proposed hotel development and a 3.5-acre area to the south of the project area proposed as an auto and truck fueling station and retail. Both areas are now shown on the Preferred Site Plan (see Figure 3-3). The total project size is now approximately 54 acres.

3.2 Project Location

The 54-acre Project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map). The Project site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 3-2, Project Location Map). Primary access to the site is proposed via 18th Avenue and Old Highway 53. No off-site infrastructure improvements are anticipated with the Project.

3.3 Project Background

The Proposed Project was originally envisioned in the mid-1990s and further developed as part the 2040 City of Clearlake General Plan process (adopted in 2017). The 2040 General Plan designates the site as Commercial and assumes that a regional shopping center will be constructed. General Plan Policy ED 5.1.1 states that "the City should attract and incentivize large retailers into the City and specifically to the regional shopping hub made up of the old airport area and existing Clearlake Shopping Center area." The current Project is an outcome of ongoing planning efforts to bring that vision to reality.

3.4 Project Setting and Surrounding Land Uses

The following section describes the existing environmental conditions at the Project site, as well as the surrounding area, consistent with Section 15125 of CEQA Guidelines.

Existing Setting

The approximately 54-acre Project site contains Assessor's Parcel Numbers (APNs) as shown in Figure 3-3 EIR Project Boundary with Existing Assessor's Parcels. Table 3-1, below, reflects the net area of the project based on Assessor Parcel information.

Table 3-1: Project Site APNs and Acreages
Based on Assessor's Records and GIS Calculated Acreages

PARCEL #	Lot Area (SF)	Lot Acreage (from tax map - as drawn)
010-031-01	32,757.12	0.752
010-031-02	31,232.52	0.717
010-031-05	19,079.28	0.438
010-031-06	30,971.16	0.711
010-031-07	20,298.96	0.466
010-031-08	13,590.72	0.312
010-031-09	14,418.36	0.331
010-043-33	23,435.28	0.538

PARCEL #	Lot Area (SF)	Lot Acreage (from tax map - as drawn)
010-043-36	178,596.00	4.100
010-043-38	682,846.56	15.676
010-043-39	63,379.80	1.455
010-043-40	126,803.16	2.911
010-043-41	258,093.00	5.925
010-043-42	47,088.36	1.081
010-043-44	69,913.80	1.605
010-043-45	75,358.80	1.730
010-043-46	46,086.48	1.058
010-043-47	32,452.20	0.745
010-043-48	54,972.72	1.262
042-052-19	54,580.68	1.253
042-053-33	14,461.92	0.332
042-121-25	152,198.64	3.494
042-122-19	4,704.48	0.108
042-122-21	4,965.84	0.114
042-122-26	58,762.44	1.349
042-123-11	4,835.16	0.111
042-123-29	9,888.12	0.227
042-123-31	24,350.04	0.559
042-124-04	5,096.52	0.117
042-124-07	5,052.96	0.116
042-124-08	4,748.04	0.109
042-124-15	4,660.92	0.107
042-124-16	5,096.52	0.117
042-124-17	4,878.72	0.112
042-124-18	5,227.20	0.120
042-124-26	9,408.96	0.216
042-124-30	10,018.80	0.230
042-124-31	24,872.76	0.571
042-124-32	9,626.76	0.221
Subtotal Lot Area	**2,238,809.76**	**51.40**
Approximate Existing ROW Area included within EIR Boundary	**128,862.73**	**2.96**
Total EIR Boundary Area (includes ROW within EIR Boundary)	**2,367,672.49**	**54**

The Project site was previously developed with the Pearce Airport. Since the airport's closure in 1994, the majority of the site was purchased by the Clearlake Redevelopment Agency in 1995 and has been used as a corporation yard by the City of Clearlake Public Works Department. The City's animal control facility is also located within the site. As such, site soils are largely disturbed and vegetation consists mostly of ruderal species. Native habitats do not exist on the site with the exception of small, unconnected pockets of oak trees in the northern, southern and eastern areas.

Project Area Historic Development

This section was assembled from the Cultural Resource Investigation of the Proposed Airport Commercial Center Property, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations.

Since 1956, the Project site has undergone significant development and disturbance with over 96 percent of the site being impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. The evolution of disturbance is shown in Figures 3-14 through 3-19; historic aerial photos of the site between 1056 and 2010. Only 10 small patches of unaltered landscape totaling 1.9 acres (3.5 percent of the Project Area) exist in the Project site today.

Native vegetation communities on the Project site were largely undisturbed in 1956, and unlike the riparian, and wetland environments found near the lakeshore, in its native state the Project Area was a barren, xeric landscape of basalt boulders and dense, hardpan clay. Species composition. At this time the Project area was characteristic of having rocky areas supported small patches of chaparral woodland with overstory including various native oak trees. In 1956, there were only four built features occupying 2.35 acres (0.43 percent) of the Project Area. Two connected dirt roads located in the northern quarter of the Project Area were graded for initial development of the "Avenues" subdivision, the east-west track of present-day 18th Avenue and the north-south connector of present-day Victor Avenue. The route of the Lower Lake-Burns Valley Road, built in the 1860s, cut an 830-foot-long, swath up to 40-feet-wide on the south margin of the Project Area (See Figure 3-14).

In 1957–59, significant earthmoving took place on 29.4 acres of the Project site. Pearce Airport was completed in mid-June 1957. Construction entailed devegetation of a 19.8 acre swath measuring 350 feet wide taxiways, and aprons, the latter confined to the west side of the runway. In its first years of operation, Pearce Airport provided no refueling or shop/hangar facilities. In fall 1958 Caltrans completed construction of State Route 53. Construction was largely confined to the current right-of-way; however, the 18th Street junction was reconfigured, a new airport exit was built, and the Burns Valley-Lower Lake Road was re-routed, shifting it south out of the Project Area to form a new Hwy 53 junction (see Figure 3-15).

Between 1960 and 1968, construction-related earthmoving took place in 35.0 acres of the Project Area. This included 24.9 acres of newly impacted native landscape, and 18.5 acres of new impacts to previously disturbed areas. The most significant impacts were improvements to Pearce Airport

which first occurred in 1962 when the existing 2,000 foot landing strip was levelled and repaved. In 1967, the County of Lake built a large corporation yard on the west side of Hwy 53 immediately south of the 18th Avenue junction to be used for material and equipment storage. The yard was 2.8 acres in size, and built on a massive landfill emplacement bringing the deck up to the elevation of Hwy 53 (see Figure 3-16).

Between 1969 and 1982, construction-related earthmoving took place in 18.3 acres of the Project site. Airport improvements completed circa 1977–78 included levelling and resurfacing of east side taxiway and apron areas, and construction of new eastside refueling and shop/hangar facilities. A previously undisturbed 5.6-acre area on the northwest border of the airfield was devegetated and bulldozed in advance of planned construction of new warehouse and commercial buildings. In addition, five private parcels, four in the Avenues development, were levelled for new construction (see Figure 3-17).

Between 1983 and 1993, construction-related earthmoving took place in 10.8 acres of the Project Area. After 1983, new Pearce Airport construction came to a halt and the airfield ceased operation in 1994. All development during this period took place in perimeter parcels. In the late 1980s, the County of Lake corporation yard immediately south of the Hwy 53/18th Avenue junction was augmented. In addition, the westside warehouse decks first bulldozed in 1982 were expanded to 3.5 acres, levelled and augmented with fill, and new hangers and commercial buildings were erected. Development in the Avenues expanded, with four new parcels levelled and homes built or installed (see Figure 3-19).

In 1994, the County of Lake initiated hearings on the disposition of the 37-acre former Pearce Airport lands and in 1995 the decision was made to transfer the lands to the City of Clearlake. The City immediately announced plans for redevelopment including industrial, commercial, and retail facilities. In 1997, the Southeast Regional Wastewater Treatment Plant/Geysers Effluent Pipeline Project was completed through the Project Area, entailing installation of a 28-inch pipeline contained in a 2,567-foot-long trench excavated between 40 and 48 inches wide and to a depth of between 72 and 84 inches through the length of the east margin of the Project Area. An underground effluent siphon pump associated with the pipeline was also built in a 2.4 acre area in the south corner of the Project site.

In 2003, a commercial recreation facility featuring a waterpark and go-cart track was built on the south end of the former airstrip, occupying 2.7 acres at its peak. New trenches were excavated in the vicinity of the pump to install waterline, electrical, and septic utilities. Through 2010, City use of the north end of the former airstrip increased, including storage of sur-plus materials in three former hangers built in 1982 and 1993. In addition, portions of the former airstrip, taxiways, and aprons were used for screening and storage of surplus soils, gravel, rock, concrete, pavement, and woody debris. The latter practice continued expanded each year through 2023 when the activity was suspended (see Figure 3-19).

Surrounding Land Uses

The existing land uses surrounding the Project site are as follows, as shown in Figure 3-4:

- North: Single-family residential, as well as a place of worship approximately 200 feet to the northwest.
- South: Single-family residential to the south and southwest and commercial uses, e.g., fast food, to the southeast.
- East: State Route (SR) 53 abuts the site's eastern boundary. Across SR 53 to the east are Adventist health care facilities, a private community center (Masonic Lodge), the Lake County Campus of Woodland Community College, government facilities, and commercial uses, including the Clear Lake Shopping Center and Walmart.
- West: Old Highway 53 abuts most of the western boundary of the Project site. To the west of Old Highway 53 are single- and multi-family residential uses, a park, a high school, and a small market. Existing uses in the central west area of the Project site include personal storage facilities, automotive uses, and other commercial/industrial uses.

Existing Land Use and Zoning Designations

The General Plan land use designation for the site is predominantly Commercial (about 54 acres) with two parcels designated Medium Density Residential. Zoning is predominantly General Commercial (GC), with the same two parcels north of 18th Avenue zoned Low Density Residential (LDR). These two parcels are APN 042-124-260, which is 0.22 acre; and APN 042-124-300, which is 0.23 acres. Existing land use and zoning designations are shown in Figures 3-5 and 3-6.

3.5 Project Objectives

Development of the Project would result in new mixed-use hub and destination gathering space for this area of Clearlake, transforming the former Pearce Airport and public works corporation yard into a regional destination that provides medical, hospitality, residential, shopping and restaurant venues. The various parcels within the development would be connected by new multi-modal streets and pedestrian networks, offering parks, pathways, a central plaza, and public market food hall and event space.

The following objectives have been developed for the Project:

- Develop a destination for visitors and community by attracting jobs and commerce to the area
- Create a City of Clearlake identity at the South Gateway and a new City brand with street improvements, park improvements, and existing business improvement initiatives
- Maintain visibility along State Route (SR) 53
- Create a pleasant and attractive appearance that complements the surrounding area with the use of drought-tolerant and water-efficient landscaping and architectural designs that support and enhance community character
- Minimize impacts to adjacent land uses through appropriate design

- Provide walkable retail, services, and public space, and minimize travel lengths, and accommodate all transportation types, including vehicles, pedestrians, bicyclists, and transit users
- Develop a fiscally beneficial project that provides sufficient revenues to maintain municipal services
- Minimize environmental impacts to the maximum extent possible
- Promote local businesses and develop retail stores that will accommodate the retail demands of the community and diversify products and services offered
- Provide sufficient on- and off-street parking to ensure that adequate parking is provided for store customers and employees
- Provide significant economic benefits to the City and community in terms of diverse employment opportunities and increased sales tax revenues

3.6 Required Discretionary Approvals

The principal discretionary permits and approvals for the Project would be granted by the City of Clearlake. The City will use information contained in the EIR during the decision-making process. Additional permits and approvals from other agencies may be necessary prior to the development of the Proposed Project.

City of Clearlake

The Proposed Project would require the following approvals from the City of Clearlake:

- Planned Development approval (PD 2024-01)
- Zoning Map Amendment to add a Planned Development zoning overlay district to the site (ZMA 2024-01 Amendment) (see Figure 3-7, Proposed Zoning Map Amendment)
- Certification of Environmental Impact Report (EIR 2024-01)
- Encroachment permits for work within City right of way
- Demolition permit approval
- Building permit approval
- Grading permit approval

Other Government Agency Approvals

Additional subsequent approvals and permits that may be required from local, regional, State, and federal agencies are identified below:

- California Department of Transportation (Caltrans) – Encroachment permit for any work performed in the SR 53 right of way. If applicable, Caltrans would also need to approve any signage along SR 53
- State Water Resources Control Board/Central Valley Regional Water Quality Control Board – Coverage under National Pollutant Discharge Elimination System Permit No. CAS000002, General Construction Activity Storm Water Permit and Stormwater Pollution

Prevention Plan; Section 401 water quality certification for discharge of dredged or fill material to waters of the state
- State Water Resources Control Board, Division of Drinking Water and other applicable agencies – Public water system permits if applicable
- Lake County Fire Protection District – Permit under the 2007 California Fire Code
- Lake County Special Districts – Sewer connections and wastewater treatment
- Highlands Water Company – Review and approval of construction plans
- Konocti County Water District – Review and approval of construction plans

3.7 Project Components

The proposed Airport Redevelopment Project is a conceptual development plan, or master plan, that would develop the 54-acre former airport site with a mix of uses, potentially including but not limited to healthcare facilities, multifamily housing, a hotel, retail, restaurants, and open space. The Project would be developed with both active and passive transportation users in mind, with roadways and parking for vehicles and bicycles, sidewalks, and off-street pedestrian walkways, as well as new sewer, water, energy, and drainage infrastructure throughout. Project phasing would be dependent on, and sequenced through, acquisition of properties by future developers as they become available.

Preferred Site Plan

Although a final and definitive Site Plan is not currently proposed, for planning purposes a conceptual site plan, the "Preferred Site Plan," has been prepared. The Preferred Site Plan includes approximately 436,500 square feet of commercial and medical uses, 250 multi-family dwelling units. Table 3-2, Land Use Summary, identifies the general land uses and associated development potential.

Landscaping, including drainage basins, totals 11.93 acres and is already included in the above land uses of commercial, medical, and multi-family.

For purposes of this environmental analysis, a range of uses is assumed under the Commercial category, including standard commercial uses (e.g., retail, hotel, sit-down restaurants, and fast-food restaurants), heavy commercial uses (e.g., such as fueling stations), and medical uses (e.g., medical offices and a hospital). These assumptions, which are detailed in Table 3-3, are used in the technical chapters throughout this Draft EIR. The specific uses that may be allowed include but are not limited to the uses shown in the Allowable Land Uses Table in this chapter (Table 3-4) and in the Development Manual for the Project. During project buildout, should any of the actual proposed uses differ from those shown on the Preferred Site Plan, City of Clearlake planning staff will conduct a project review to determine whether the proposed uses are more impactful (with regard to the City's development standards and to those environmental issue areas listed in Appendix G of the CEQA Guidelines) than those evaluated in this Draft EIR under the Preferred Site Plan. If they are determined to be significantly more impactful, subsequent environmental review may be required. This process is outlined in more detail in the Development Manual (see Appendix C).

Table 3-2: Airport Redevelopment Project Land Use Summary

Land Use	Zone	Preferred Site Plan Maximum Gross Square Feet (GSF)/ Densities	Total Acres per Land Use
Commercial Uses			
Hotel, general commercial, fast-food	PD-1	56,402 GSF	4.69[1]
General commercial, fast-food	PD-2	186,979 GSF	13.4
General commercial, fast-food, gas station	PD-3	55,600 GSF	5.34
Total Commercial Uses		*284,402 GSF*	*23.43 acres*
Medical Uses			
Medical office, hospital	PD-2	137,500 GSF	11.17
Total Commercial & Medical Uses[2]		***436,481 GSF***	***34.6 acres***
Multi-Family			
Townhomes, apartments, condos	PD-1	196 units	4.25
Apartments, condos	PD-2	54 units	1.9
Total Multi-Family		*250 units*	*5.64 acres*
Open Space			
	All	-	*4.54 acres*
Roadway Right-of-Way			
	All	-	*8.7 acres*
TOTAL			***54± acres***

[1] For PD Zones 1 and 2, all land use acreage for mixed uses was assigned to commercial.
[2] Commercial uses are allowed in lieu of medical uses in Table 3-4 "Allowable Land Uses" for PD-2, but are shown as medical uses in this table as they are in the Preferred Site Plan.

Conceptual Development Plan

As noted above, the "Preferred Site Plan" was prepared to guide future Project buildout as shown in Figure 3-8 and depicted via conceptual aerial image in Figure 3-9, Concept Aerial Plan. The Project includes target maximum square footages of building areas for the purposes of the environmental review, as shown in Tables 3-2 and 3-3. The Project provides a flexible approach to land uses for the Project with emphasis in design/appearance based on a set of design guidelines.

To meet this need for flexibility, the Project Area is divided into three Planned Development Zone Districts as referenced in Figure 3-10, Planned Development Zone Districts. The districts allow a variety of uses and provide guidance to the development and design of the architecture, public open space, streets, parking, pedestrian and commercial retail experience. The uses allowed in each Zone District are described generally below and more specifically in Table 3-4.

> **Zone District 1 - Mixed Use Zone** includes multifamily, mixed-use multifamily, hotel, and commercial buildings. Access is from Vallejo Avenue, Manzanita Avenue and future 18th Avenue (13.20 acres).
>
> **Zone District 2 - Primary Commercial/Wellness Zone** includes commercial and commercial mixed-use residential uses, a hospital or health clinic and medical offices, public open space, and a public market. Access is from 18th Avenue, Old Highway 53, 18th Avenue, North and South Market Streets, and Festival Street (35.29 acres).
>
> **Zone District 3 - Heavy Commercial Zone** includes commercial retail and drive- through restaurants, gas station and possible truck fueling station. Access from South Market Street (5.86 acres).

As many as 250 new housing units would be constructed across Zone Districts 1 and 2, cumulatively, and up to 436,500 square feet of commercial uses (which may include hospital/medical facilities) would be constructed across all three Zone Districts. Healthcare facilities and medical offices are included in the commercial area because commercial uses are allowed within these areas per Table 3-4 below. The Project site would ultimately have up to 38 acres of impervious surface and 11 acres of pervious surface. Approximately 11.93 acres would be landscaped or used for drainage features.

North-to-south mainline infrastructure is anticipated to occur first within the main portion of the site to facilitate development of individual sites east and west of the central roadway. Following infrastructure installation, the Project may be developed in any order; no phasing is proposed.

Table 3-3 shows the development potential for each zone in the Preferred Site Plan:

Table 3-3: Project Land Use Summary by Zone Districts - Preferred Site Plan

Land Use - General	Item	Land Use - Specific	Acres per land use[1]	Maximum Gross Square Feet (GSF) of Building Area	Building Footprint (GSF)	Density (dwelling units - du)	Floors	Notes
PLANNED DEVELOPMENT ZONE 1								
Commercial	1	Hotel	2.74	44,158	11,040	75 rooms	4	
	2	Conference facility	1	4,244	4,244	-	1	
	3	General commercial (or restaurant) (portion of 1st-floor of mixed use)[2]	0	4,000	4,000	-	4	Mixed-use building with Items 8 & 9
	4	Fast-food, No Drive-through	0.475	2,000	2,000	-	1	
	5	Fast-food, Drive-through	0.475	2,000	2,000	-	1	
	SUBTOTAL - Commercial		***4.69 ac.***	***56,402 GSF***	***23,284 GSF***	**-**	**-**	
Residential	6	Townhomes	1.64	34,000	17,000	14	2	
	7	Multifamily housing	1.57	70,000	17,500	60	4	
	8	Multifamily housing (top 3 stories mixed-use building[3]	0.88	67,211	26,360	76	4	Mixed-use building with Items 3 & 9
	9	Structured parking (ramped parking in mixed-use building)[1, 3]	0	37,289	25,570	-	2	Partially below-grade; Mixed use-building with Items 3 & 8
	10	Multifamily housing	1.04	38,151	9,538	46	4	
	SUBTOTAL - Residential		***5.13 ac.***	***246,651 GSF***	***95,968 GSF***	***196 du***	**-**	
Open Space	11	-	0.19	-	-	-	-	
Right of Way	12	-	3.21	-	-	-	-	
SUBTOTAL - Planned Development Zone 1			***13.22 ac.***	***303,053 GSF***	***119,252 GSF***	***196 du***	**-**	

Table 3-3 (Continued): Project Land Use Summary by Zone Districts - Preferred Site Plan

Land Use - General	Item	Land Use - Specific	Acres per land use[1]	Maximum Gross Square Feet (GSF) of Building Area	Building Footprint (GSF)	Density (dwelling units - du)	Floors	Notes
PLANNED DEVELOPMENT ZONE 2								
Commercial	13	General Commercial (retail, restaurant)	2.6	20,000	20,000	-	1	Shares site Item 19
	14	General Commercial (market, food hall)	0.28	12,000	12,000	-	1	Attached to event space in Item 15
	15	General Commercial (flex/event)	0.25	6,000	6,000	-	1	Attached to market food hall and outdoor patio
	16	General Commercial (retail)	1	6,000	6,000	-	1	Shares site & parking with Item 18
	17	General Commercial (retail)	4.3	62,000	62,000	-	1	
	18	General Commercial (retail)	3.19	62,400	62,400	-	1	Shares site & parking with Item 16
	19	Fast-food, Drive-through	1.28	2,000	2,000	-	1	Shares site with Item 13
	20	Fast-food, Drive-through	0.5	2,000	2,000	-	1	
	21	General Commercial (retail) (bottom floor of 4-story mixed-use building)[3]	0	14,579	14,579	-	1	
	SUBTOTAL - Commercial		***13.4 ac.***	***186,979 GSF***	***186,979 GSF***	-	-	
Medical	22	Medical office	4.27	67,500	22,500	-	3	
	23	Hospital	6.9	70,000	23,334	-	3	25 beds
	SUBTOTAL - Medical		***11.17 ac.***	***137,500 GSF***	***45,834 GSF***	-	-	
Combined	***SUBTOTAL - Combined Medical & Commercial***		***24.57 ac.***	***324,479 GSF***	***232,813 GSF***	-	-	
Residential	24	Multifamily residential (top 2 floors of 3-story mixed-use building)	1.39	43,078	14,580	54	3	
Open Space	25	-	4.27	-	-	-	-	
Right-of-Way	26	-	5.06	-	-	-	-	
SUBTOTAL - Planned Development Zone 2			***35.29 ac.***	***367,557 GSF***	***247,393 GSF***	***54 du***		**-**

Table 3-3 (Continued): Project Land Use Summary by Zone Districts - Preferred Site Plan

Land Use - General	Item	Land Use - Specific	Acres per Land Use[1]	Maximum Gross Square Feet (GSF) of Building Area	Building Footprint (GSF)	Density (dwelling units - du)	Floors	Notes
PLANNED DEVELOPMENT ZONE 3								
Commercial	27	General Commercial	2.6	40,600	40,600	-	1	
	28	General commercial (retail)	0.8	5,600	5,600	-	1	
	29	Fueling station	0.8	5,000	5,000	-	1	
	30	Fast-food, drive through	1.14	4,400	4,400	-	1	
	SUBTOTAL - Commercial		***5.34 ac.***	***55,600 GSF***	***55,600 GSF***	**-**	**-**	
Open Space	31	-	0.08	-	-	-	-	
Right of Way	32	-	0.44	-	-	-	-	
SUBTOTAL - Planned Development Zone 3			***5.86***	***55,600 GSF***	***55,600 GSF***	**-**	**-**	
PREFERRED SITE PLAN								
Total - Commercial & Medical			34.6	436,481	311,697	-	-	
Total - Residential			6.52	289,729	110,548	250	-	
Total - Open Space			4.54	197,762	-	-	-	
Total - Right-of-Way			8.71	379,408	-	-	-	
TOTAL - Preferred Site Plan			***54.37 ac.***	***1,303,380 GSF***	***422,245 GSF***	***250 du***	-	

Notes:

1. For PD Zones 1 and 2, all land use acreage for mixed-use was assigned to MF residential.
2. Multifamily is primary use and includes structured parking and retail commercial uses.
3. Multifamily is primary use and includes ground floor retail commercial uses.

In accordance with Chapter 18-18 of the City's Municipal Code, uses/operations proposed within each of the District Zones would be subject to initial review by Planning Department staff. Uses may be allowed by right (i.e., a permitted use, "P," or a ministerial Zoning Permit, "ZP," may be required for limited uses), administrative permit ("AU") reviewed and approved by planning department staff, or a Conditional Use Permit ("CU"), subject to review and approval by the Planning Commission and/or City Council, may be required per Section 18-28 of the Zoning Code, as shown in Table 3-4 below. Several uses are prohibited ("-") per use tables in Chapter 18-18 of the Municipal Code.[3]

Where uses are shown in this Project's Preferred Site Plan (Figure 3-8), uses will be allowed by right. Special notes affecting the status of uses are indicated by the number that may be found at the end of the table.

Table 3-4: Allowable Uses by Zone District

Use	District 1	District 2	District 3
Accessory Structure(s)	P	P	P
Adult-Oriented Businesses	-	-	-
Automobile Repairs	-	-	AU
Automobile Sales	CU	AU	P
Auto Sound System Sales and Installation[1]	-	AU	P
Bus Depot	-	-	CU
Child/Adult Daycare 14 patrons and greater	P	P	P
Church/Places of Worship	CU	CU	CU
Commercial Cannabis	-	-	-
Department Store	P	P	P
Disposal-Composting Facility	-	-	-
Electrical Vehicle Charging Stations	P	P	P
Event Facility / Banquet Hall / Dance Hall / Lodge	P	P	P
Farmers' Markets	P	P	P
Gas Station / Light Automobile Service / Car Wash (except for electrical vehicle charging stations)[2]	-	AU	P
General Professional, Medical Office	P	P	P
Grocery Store[2]	P	P	P
Heavy Industry	-	-	-
Heavy Retail, Lumberyards and Equipment	-	AU	P
Hospital and Wellness Facilities	-	P	P
Hotels, Motels	P	P	P
Helicopter uses for emergency services[3]	P	P	P
Indoor Recreation / Personal Fitness	P	P	P
Indoor Shooting Range	-	CU	CU
Light Industry	-	-	-
Mixed-Use Housing[4]	P	P	AU
Multifamily/Multi-Dwelling Developments[4]	P	*AU	AU
Outdoor Commercial Amusement	AU	P	P
Police or Fire Station	AU	AU	AU
Private Club	P	P	P

[3] City of Clearlake Municipal Code. Subsection 18-18.010: Uses Allowed by Zones. https://clearlake.municipal.codes/CMC/18-18.010. Accessed June 26, 2025.

Use	District 1	District 2	District 3
Public Assembly (preschools; elementary, middle and high schools; libraries; community centers)	P	P	P
Restaurant; No Drive-Through	P	P	P
Restaurant; With Drive-Through	P	P	P
Retail, Indoor Sales	P	P	P
Secondhand Dealers & Pawn Brokers, including Thrift Stores	CU	CU	CU
Senior Independent Living Center	AU	-	AU
Self-Storage	-	-	-
Single-Family Detached Dwelling[4]	*AU	CU	CU
Small Animal Veterinarian	AU	AU	AU
Performing Arts Facilities	P	P	P
Storage Yard	-	-	CU
Tattoo Parlor	P	P	P
Temporary Construction Yard	P	P	P
Tobacco Sales	P	P	P
Trucking	-	-	*CU
Truck Stop / Truck Wash	-	-	*AU
Warehouse Retailers	-	P	P
Warehousing and Logistics / Distribution Centers	-	-	-
Wholesale Business	-	AU	CU

P = Permitted **AU = Administrative Use** **CU = Conditional Use**

* Where uses are shown in this Project's Preferred Site Plan (Figure 3-8), uses will be allowed by right.

Notes:

1. Auto sound system installation: Auto sound installation services may be approved only as an accessory use to the retail sales of auto sound systems on the same site subject to approval of an administrative use permit. Administrative use permit review shall consider parking space displacement, noise from the operation and the appearance and visibility of the installation area.

2. Gas Station / Light Automobile Service / Car Wash: Gas Stations/Light Automobile Services/Car Washes may be approved only as an accessory use to grocery stores and warehouse goods retailers in Zone District 2 and will be approved as a by-right use in Zone District 3.

3. Emergency service helicopter facilities consist of rooftop emergency facilities, emergency medical services helicopter landing areas, temporary helicopter landing sites, and emergency use facilities. Refer to Section 18-19.355 of the Zoning Code and Definitions section regarding Helicopter Facilities.

4. Minimum Dwelling Unit Sizes: Except as required for Accessory and Junior Accessory Dwellings, per Section 18-19.320 single-family detached dwellings, including manufactured homes, shall have a minimum 750 square feet floor area (exclusive of garages and carports). A primary dwelling unit size from 400 to 749 square feet (micro primary dwelling) may be approved in any residential zoning district with approval of an administrative use permit. Duplexes, townhomes, and multiplex/multiple family dwellings shall have a minimum 450 square feet of floor area.

Infrastructure Improvements

Mainline north-south and east-west infrastructure improvements would be constructed within the City right of way to individual property lines either altogether prior to any development, or incrementally as individual project sites are built out. Developers would be responsible for construction of infrastructure on individual lots. Some infrastructure, predominantly within the commercial and health care facility properties, would be constructed and maintained by the owners of those properties, while shared infrastructure across private property lines, such as drainage, storm water, roads, parking lots, streetlights, parks, etc. may require fair share contributions for maintenance from individual owners, which may be done through private agreements or special districts.

Transportation and Circulation

Vehicular Transportation and Circulation

Access to the Project site would be provided via three primary public rights-of-way that connect to existing perimeter routes, as shown in Figure 3-11, Proposed Street System and Cross Sections. 18th Avenue is an existing east/west roadway separating proposed mixed uses to the north and commercial uses to the south. Airport Road/Festival Lane also runs east/west through the central area of the site and would connect at its west end to Old Highway 53. It would not connect to SR 53 as no new encroachments are proposed to SR 53. Market Street is a primary north/south connector through the site, extending from Old Highway 53 to 18th Avenue. Street system improvements, including curbs, gutters, and sidewalks, would be developed to specifications consistent with City standards in all locations. Street sections for various road segments are shown in Figure 3-11. Access to individual properties from the described mainline roadway infrastructure would be constructed and maintained by the developers of each site. The Project would not take direct access from SR 53.

Active Transportation and Circulation

The following active transportation improvements are proposed with the Project:

- *Bus/Rideshare*: A bus shelter/pullout is proposed for future use at the healthcare facilities and across the street; however, buses and rideshares would initially share drop-off points along North and South Market Street due to currently limited ridership and routes. These locations at the Festival Lane/Airport Road intersection could become exclusively bus drop-off only when ridership and bus routes increase. The drop-off areas are sized to accommodate shelters that would be installed later as service demands dictate. Additional stops at the north and south of the site can be added by removing a parallel parking spot and installing shelters.

- *Sidewalks*: New sidewalks would be provided along the Project frontage of the 18th Avenue extension and Market Street.

- *Bicycle Lanes*: The Market Street bike lane would be two-way and buffered by a landscape strip or a painted zone to separate it from vehicular traffic. Connecting bike lanes would also be provided to additional points along Old Highway 53 and 18th Avenue.

- *Pedestrian and Bicycle Overcrossing*: A pedestrian overcrossing over SR 53 is part of the conceptual plan to connect the Project site to uses on the east side of SR 53 at the south side of the South Center Drive/SR 53 intersection at the existing Clearlake transit station; this overcrossing is evaluated conceptually in this Draft EIR and may require additional environmental review if that portion of the project moves forward in the future.

- *Multi-Modal Paths*: Pedestrian walkways and dedicated Class II bicycle lanes throughout the site provide north/south connections between the Old Highway 53 and 18th Avenue, with a shared-use vehicle and bike lane connecting between Old Highway 53 and the center of the site at Airport Road. Other pedestrian routes include sidewalks, plazas, and pathways along all public streets and throughout the park area, thereby connecting the entire site and providing accessibility.

Utilities

The Project will require the expansion or installation of new utility systems infrastructure for electricity, water supply, wastewater and stormwater drainage on the site. Figures 3-12 and 3-13 show the overall utility plan for the Project site.

Power

Power across the site would be provided via underground power lines. All developments constructed within the Project site would underground new power to their individual sites.

Drainage and Storm Water Design

The proposed drainage plans include stormwater detention and implementation of stormwater treatment consistent with the City's low impact design (LID) guidelines. The Project design integrates on-site detention basins coupled with low impact design principles to manage stormwater in an environmentally sustainable manner while enhancing flood protection and water quality. Figure 3-14 shows the proposed storm water design for the site.

Key components of the overall drainage system include the following:

- *On-Site Detention Basins*: Detention basins are designed to result in no increase over pre-development flows. Pre-and post-development flows for the 10-year and 100-year storm events have been used in calculating and sizing of facilities. On-site detention basins will be strategically located throughout the Project area to capture and temporarily store stormwater runoff during rain events, and will be constructed on a project-by-project basis. These basins will be designed to attenuate peak flows and reduce downstream flooding, thereby protecting infrastructure and improving overall drainage efficiency.

- *Low Impact Design (LID) Features*: The Project includes various LID features that include

but are not limited to permeable pavements, vegetated swales, bioretention areas, physical structures which separate grit and solids, along with drainage inlets containing drain filter fabric. Permeable pavements may be utilized in parking areas and walkways to facilitate infiltration of stormwater into the ground, thereby minimizing runoff volumes and pollutants. Vegetated swales and bioretention areas would uphold water quality by filtering pollutants and promoting groundwater recharge.

- *Hydraulic Modeling and Design Criteria*: Detailed hydraulic modeling will be conducted to simulate stormwater runoff and assess the performance of on-site detention basins and LID features. Design criteria will comply with state and city regulatory requirements and standards, including peak flow attenuation, water quality treatment, and volume control objectives.

- *Community and Environmental Benefits*: The Project would contribute to enhancing localized resilience against flooding and improving overall water quality regionally. By incorporating LID principles, the Project promotes sustainable development practices that reduce the environmental footprint of urbanization. Preservation of natural hydrological processes and ecosystem services will be emphasized to minimize impacts on local habitats and biodiversity.

New storm drainage systems would also be developed within each parcel, which would provide new storm drain lines throughout the paved areas on-site. The lines would ultimately drain into the new storm drain line within the 18th avenue extension, north/south road, Airport Road, and west road. No offsite stormwater facilities are anticipated to be constructed as a result of the project.

Water

The Project site lies within the limits of the Highlands Water Company district boundaries south of 18th Avenue, and the Konocti County Water District north of 18th Avenue. Highlands Water Company is privately owned by the company's customers and governed by an elected board, whereas the Konocti County Water District is a public water district. Both treated water service providers are supplied by water from Clear Lake, a surface water source.

A water supply and demand analysis has been prepared for the Project to ensure that the system is designed to meet the maximum daily demand plus a two-hour fire flow of at least 1,500 gallons per minute, and that sufficient supplies exist for the Project cumulatively with other existing and planned development. These rates will then be used to design a transport system to supply water throughout the Project site.

The development would be served by a 10-inch diameter water main line through the center of the Project in a north-south direction. Service laterals for multiple properties would be looped back to the 10-inch main line and would be 8 inches in diameter, while lines that extend to single properties would be 6 inches diameter, except for the line to the medical center which is anticipated to be 8 inches in diameter. All water mains would have valves, fire hydrants, meters, fire service connections, fire sprinkler connections and other necessary components per the requisite standard plans and specifications. No offsite water infrastructure improvements are anticipated to be constructed as a result of the proposed project.

Sewer

Wastewater and effluent from the Project site, as well as the entire City of Clearlake, is transported through the collection system via both gravity and pumping stations to the Southeast Regional Wastewater System. Sewer service for the proposed development is proposed to be provided by Lake County Sanitation District (LACOSAN). As part of the Proposed Project, new sanitary sewer connections would be provided within Project roadways from 18th Avenue and Old Highway 53, along with new water connections. The new sewer system would be sized for anticipated uses on each parcel of the development master plan. The parcels shown on the master plan would be categorized, and a range of sewer flows calculated, allowing for a wide range of uses with each parcel. Once sewer flows are assigned to each parcel, empirical peaking factors will be applied, and based on these, a collection and transport system sized and ultimately designed. New sewer infrastructure is anticipated to consist of 8-inch sewer mains, manholes, and 4-inch sewer service laterals for all new buildings. Additionally, a 6-inch sewer lateral would be installed specifically for the hospital to accommodate its higher usage. No offsite sewer improvements are anticipated to be needed as a result of this project.[4]

Development Manual and Design Elements

The Proposed Project includes a Development Manual to guide development within the Project area as individual projects are constructed by both the City and private developers. Design standards ensure aesthetic and functional consistency across the development area while allowing for some flexibility for individual developers. The Design Standards include metrics for integrated site design features, parks and open space, building architecture, lighting, landscaping, and signage, and well as standards and process for subsequent project review and project changes (refer to Appendix C for the Development Manual).

Future individual projects within the site would be evaluated against the standards for each of these issue areas, ensuring consistent aesthetics, interconnected developments, and a standardized process for developers. The design standards are evaluated in this Project EIR.

Landscaping

The Proposed Project would provide landscaping improvements consistent with the Development Manual, including the planting of new trees and shrubs throughout the Project site. The site landscape strategy is to highlight the natural beauty of the Lake County's rolling hills and native oaks while providing a walkable destination that is shaded and verdant with multiple recreation and retail opportunities. Additional strategies include planted screening of parking, reducing impervious surfaces, and remediating stormwater across the site. The Development Manual provides tree lists for various areas of the site, including street trees, site trees, gateway trees, and stormwater planter trees.

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[4] California Engineering Company, Inc. "Technical Memorandum, EIR Support Water and Sewer, City of Clearlake, Airport "Concept" Development Project." June 2, 2025.

Lighting

The Proposed Project includes lighting throughout the Project site consistent with the Development Manual. Site lighting would highlight destinations from the adjacent highway, aesthetically enhance the site and architecture, and provide safe lighting levels for pedestrians, cyclists, and vehicles while implementing Dark Sky strategies and compliant fixtures. Fixtures may include bollards, pole lighting in parking lots, wall-mounted fixtures for building facades and security, and signage lighting. All lighting would be downward and fully shielded with no off-site light trespass.

Signage

The Proposed Project includes signage throughout the Project site consistent with Chapter 18-33 of the City of Clearlake Municipal Code, and as identified on the Preferred Site Plan:

- Two gateway signs are proposed, at the north and south gateways to the project off SR 53. According to the City's Municipal Code, gateway signage may be freestanding pole signs up to 300 square feet in sign-surface area and a maximum height of 37.5 feet, if the sign uses the City logo or reference to the City.
- Monument signage is proposed at the north entry to Market Street, the south entry to Market Street, and the Airport Road access from Old Highway 53. Monument signage may have a maximum square footage of 40 square feet per sign and a maximum height of six feet, including base and border. All signage would be design-compliant with City standards and Design Guidelines.
- Wayfinding signage would also be incorporated at driveways, along pedestrian routes, and at intersections, and would include post, fin, wall-mounted with a range of heights based on pedestrian or vehicle distance.
- All signage would be top/downward lit to be Dark Sky compliant and adhere to City standards and sight distance requirements at intersections and driveways.

Parking

Parking is laid out in the Preferred Site Plan (Figure 3-8) to conform to minimum parking demands established in this EIR. Surface parking lots, street parking and structured parking and associated improvements would be developed throughout the site in compliance with City residential, commercial, and medical facility standards. In addition to parking ratio standards for number of stalls, other parking standards include the following:

- The Proposed Project would utilize shared parking allowances across multiple parcels per Clearlake Municipal Code Section 18-20.090 Parking Space Requirements.
- Project parking would include electric vehicle (EV) parking spaces per the 2022 California Green Building Standards Code, Title 24, Part 11 with July 2024 Supplement, Electric Vehicle Charging Stations and EVSE.
- Project parking would also include accessible parking spaces per California Building Code 2022 Table 11B-208.2 and 1109A.3.
- The Project would also include bicycle parking spaces per Clearlake Municipal Code

Section 18-20.090 and 2022 CalGreen requirements.

Offsite Improvements

There are no off-site improvements anticipated as a result of the Proposed Project.

Project Construction

Demolition

Multiple buildings within the Project area would need to be demolished before any new construction could occur in these areas. Demolition is not planned in any particular phase or sequence but would occur with buildout of the specific parcels on which the existing buildings are located.

The following is a list of buildings that exist on site that would need to be demolished:

- Northeast area:
    - Maintenance building
    - Three-sided shed over unpaved ground
- Central western area:
    - Lake County Fire District – Station 71
    - Clearlake Animal Shelter
    - Valley Glass
    - Airport Storage

A map of buildings that will need to be removed as part of any new project development is provided in Figure 3-12. Photos of the structures are found in Chapter 4.4, Cultural Resources.

If construction is to occur in any area with existing buildings, demolition would be the first phase of construction for that development. Until that time, existing uses such as Animal Control will continue to operate and function as legal nonconforming uses.

Grading

Grading would generally follow natural contours with two main level areas consistent with the natural grade changes. Approximately 80,495 cubic yards of cut and 147,866 cubic yards of fill are anticipated for the Project, for a total of approximately 228,400 cubic yards of earth movement. Additional construction activities and processes would utilize much of the excess fill for balanced earthwork throughout the site according to the Preliminary Grading Plan (see Appendix K, "Technical Memorandum, EIR Support Infrastructure, City of Clearlake, Airport 'Concept Development' Project").[5] All grading over one acre requires compliance with the State's National

[5] California Engineering Company. "Technical Memorandum, EIR Support Infrastructure, City of Clearlake, Airport 'Concept Development' Project." June 2, 2025.

Pollutant Discharge Elimination System Permit No. CAS000002 for General Construction Activity Storm Water Permit and Stormwater Pollution Prevention Plan.

Construction Schedule

Project grading and construction of backbone infrastructure, along with the beginning of construction of individual projects, is anticipated to begin in 2026. Project construction is anticipated to be completed between 15 and 25 years depending on economic conditions. As noted in Figure 3-8, certain traffic operation improvements are anticipated to be completed based on development phasing, such as a new traffic signal at Old Highway 53 and Market Street and restriping and improvements to the existing intersection at Highway 53 and 18th Avenue.

Staging

Construction staging would be located throughout the site on undeveloped parcels as the Project develops. Staging areas would be moved throughout the various phases of the Project. All staging would occur outside any sensitive resources and as far from sensitive receptors as possible, such as residences, schools, elderly care facilities, and hospitals.

Project Operations

The various commercial uses would operate during typical commercial hours appropriate to their specific needs. Most commercial and retail uses will operate within regular business hours; restaurants and bars are expected to remain open later; and any grocery stores may remain open all night. Healthcare facilities would also typically open during regular business hours, except for urgent care or emergency facilities which may operate 24 hours per day.

Healthcare facilities and various commercial venues would establish appropriate hours of deliveries operation for their specific needs. Supply and goods deliveries would occur throughout each day during regular business hours. Loading would generally occur at the back of buildings except for the marketplace, where deliveries would likely occur at the front of buildings.

The central park and/or plaza could be programmed for events such as concerts, movies, rallies, etc., that generate noise not normally present during typical commercial hours of shopping and dining out. The marketplace could include an outdoor patio which could be used for meetings, parties, or receptions, and low-amplified music could be allowed, for example, until 9:00 PM.

Lot Reconfiguration

Lot line adjustments or record mapping, as required by the Subdivision Map Act, would occur throughout Project development to ensure that uses do not cross property lines. These adjustments will not result in direct or indirect physical environmental impacts and are not included in the analysis of this EIR.

Figure 3-1: Regional Project Location

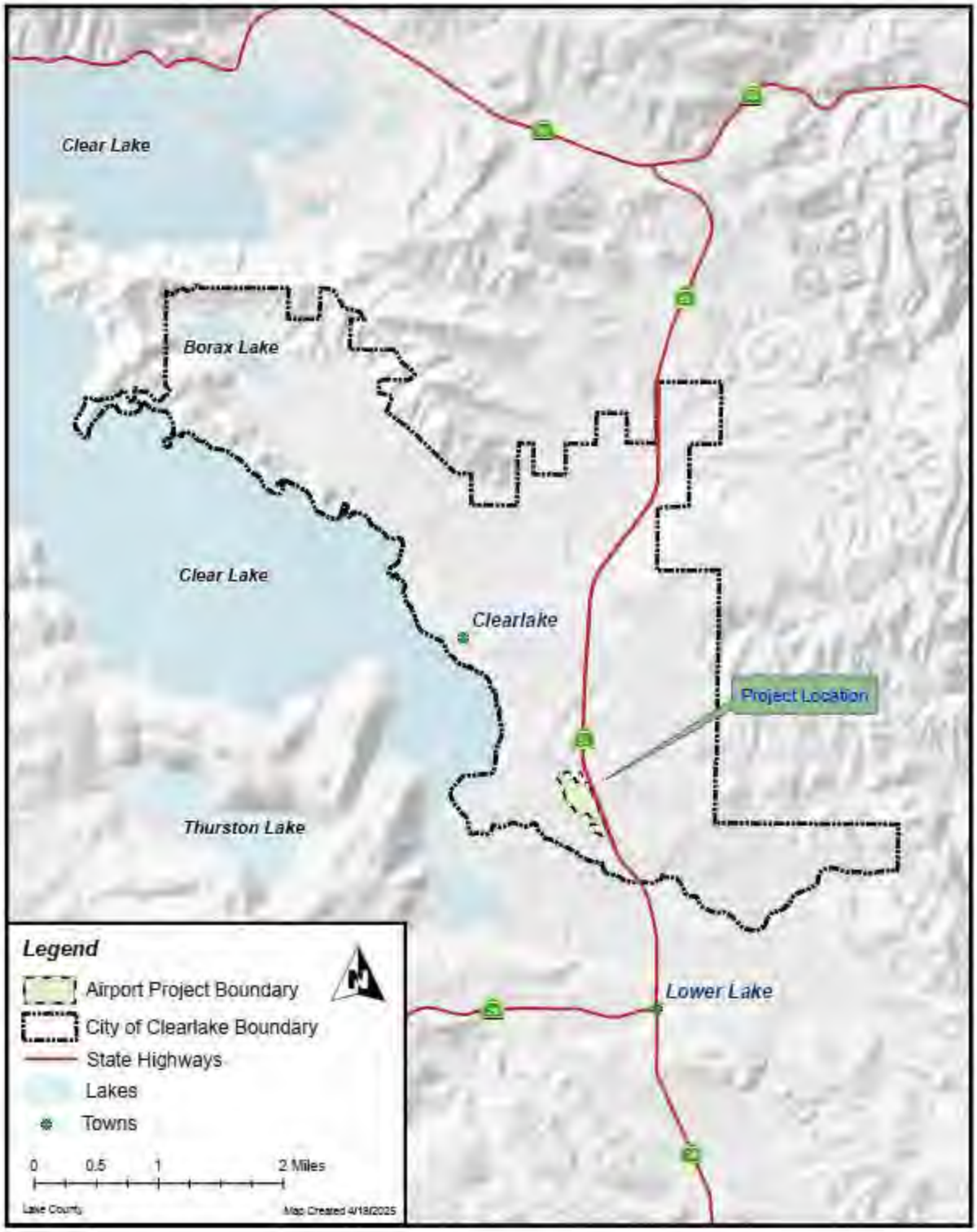


Figure 3-2: Project Location Map



Figure 3-3: EIR Project Boundary with Existing Assessor's Parcels

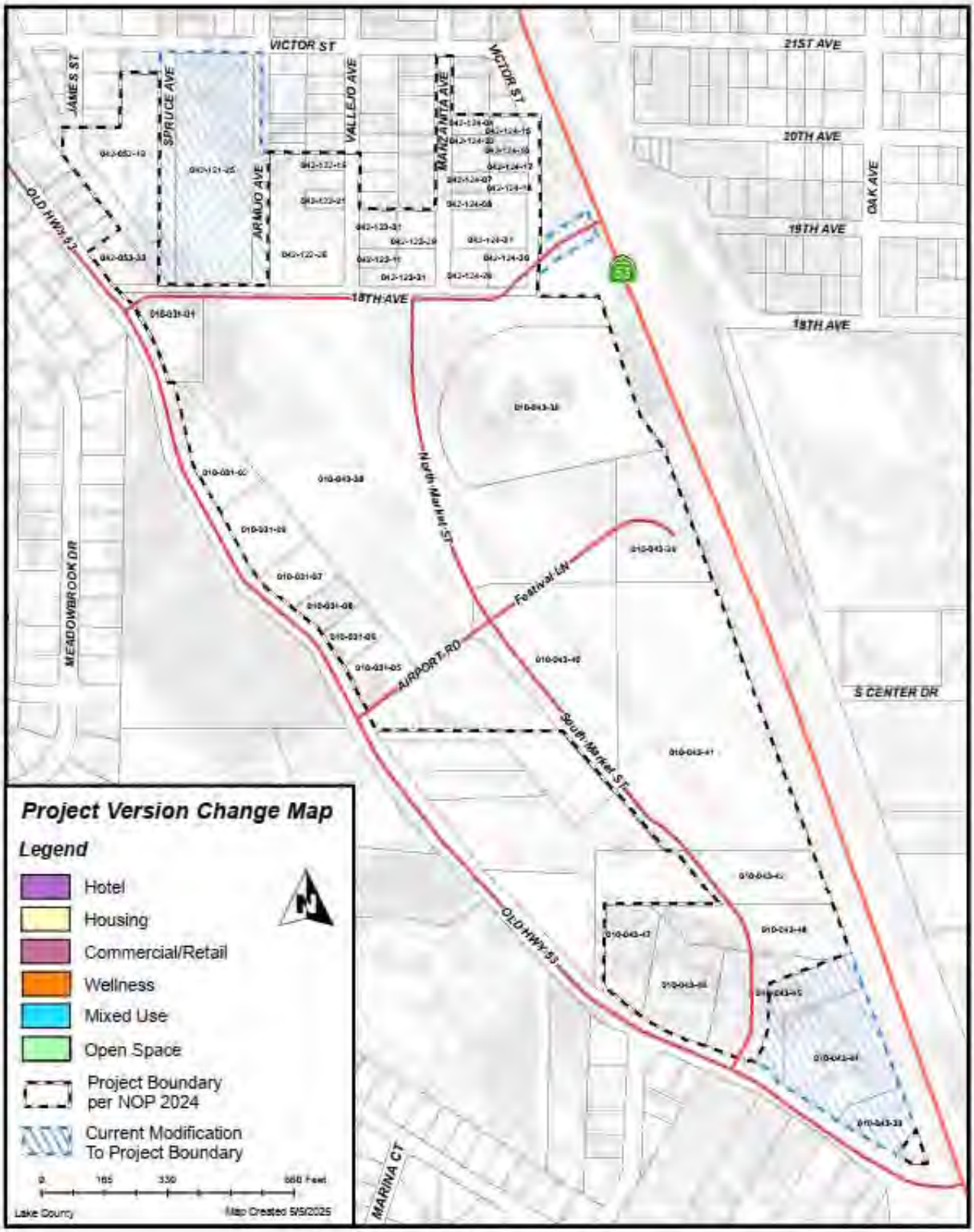


Figure 3-4: Surrounding Land Uses



Figure 3-5: Existing General Plan Land Use Designations



Figure 3-6 Existing Zoning Districts



Figure 3-7: Proposed Zoning Map Amendment



Figure 3-8: Preferred Site Plan

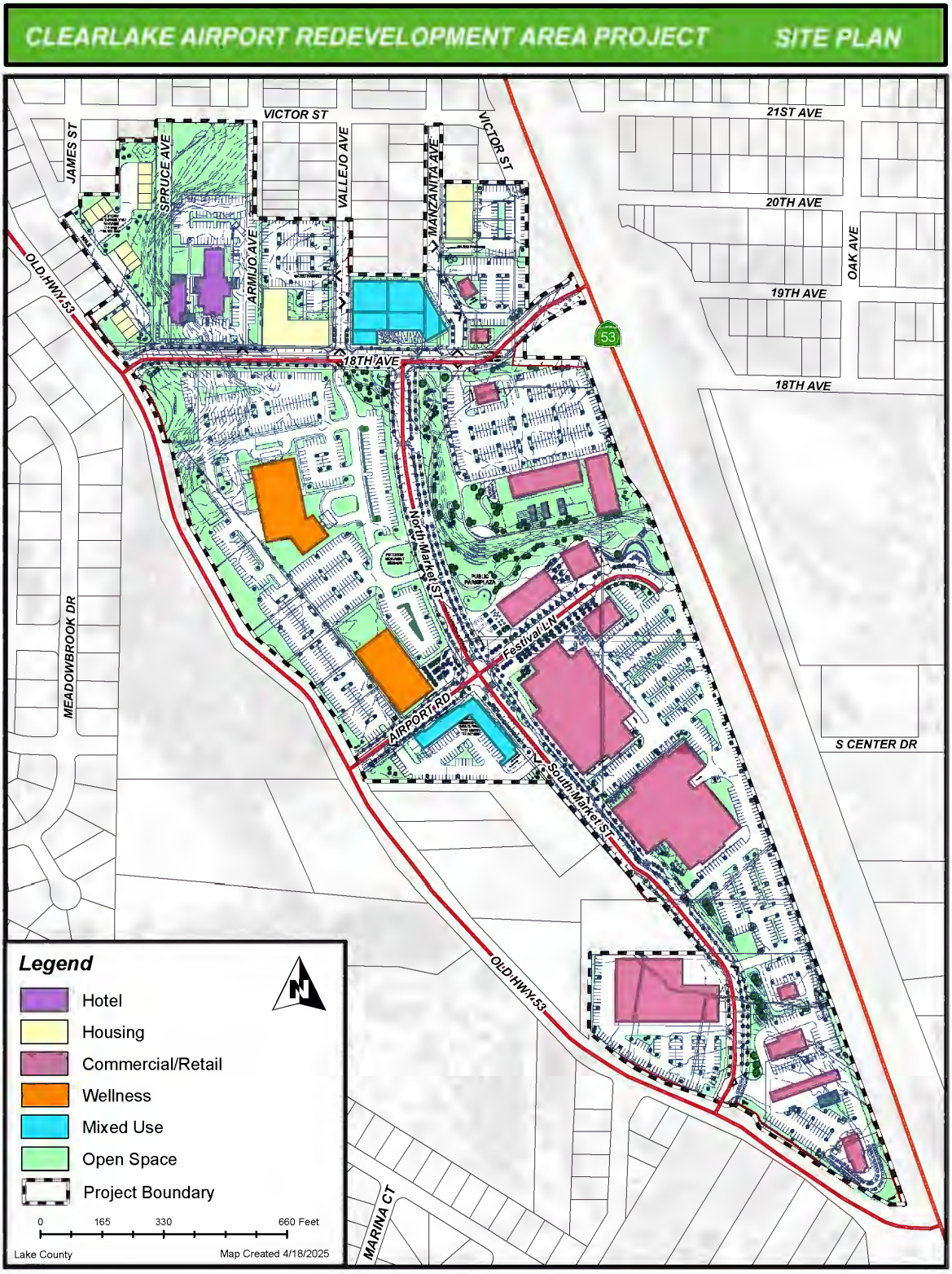


Figure 3-9: Concept Aerial Plan



Figure 3-10: Planned Development Zone Districts

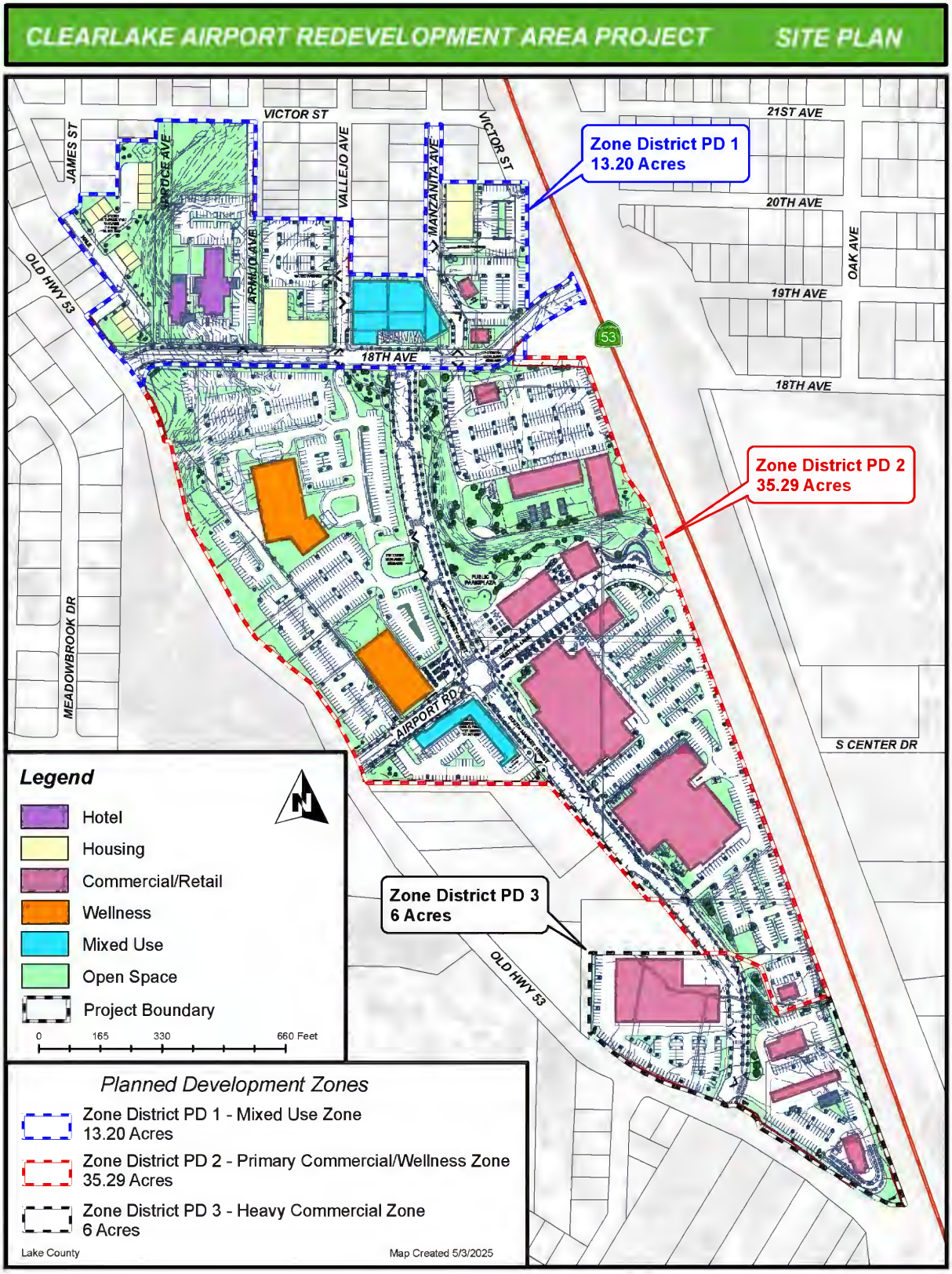
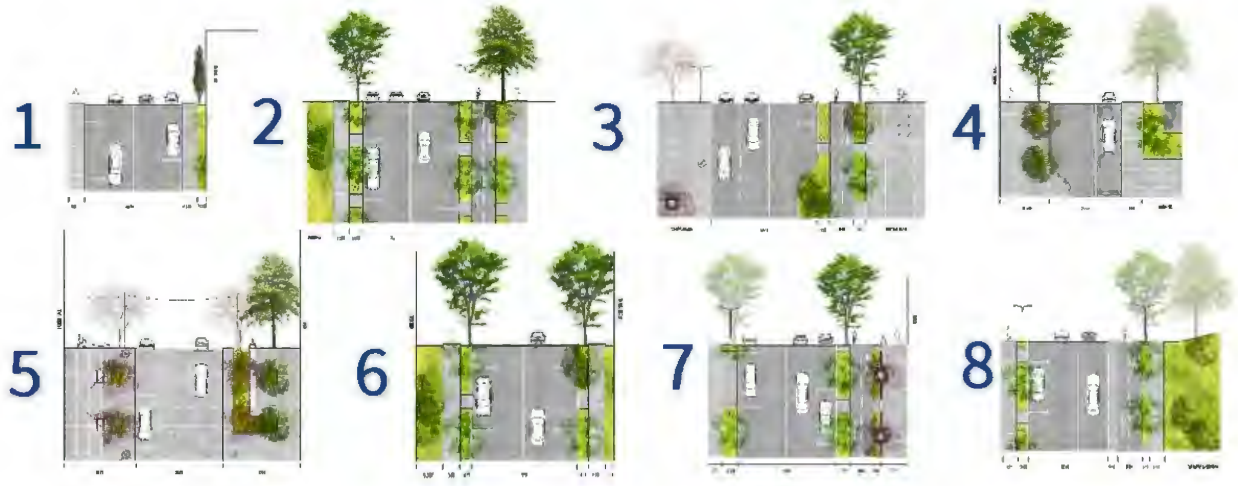


Figure 3-11: Proposed Street System and Cross Sections



Street Design Intent Cross Section Types

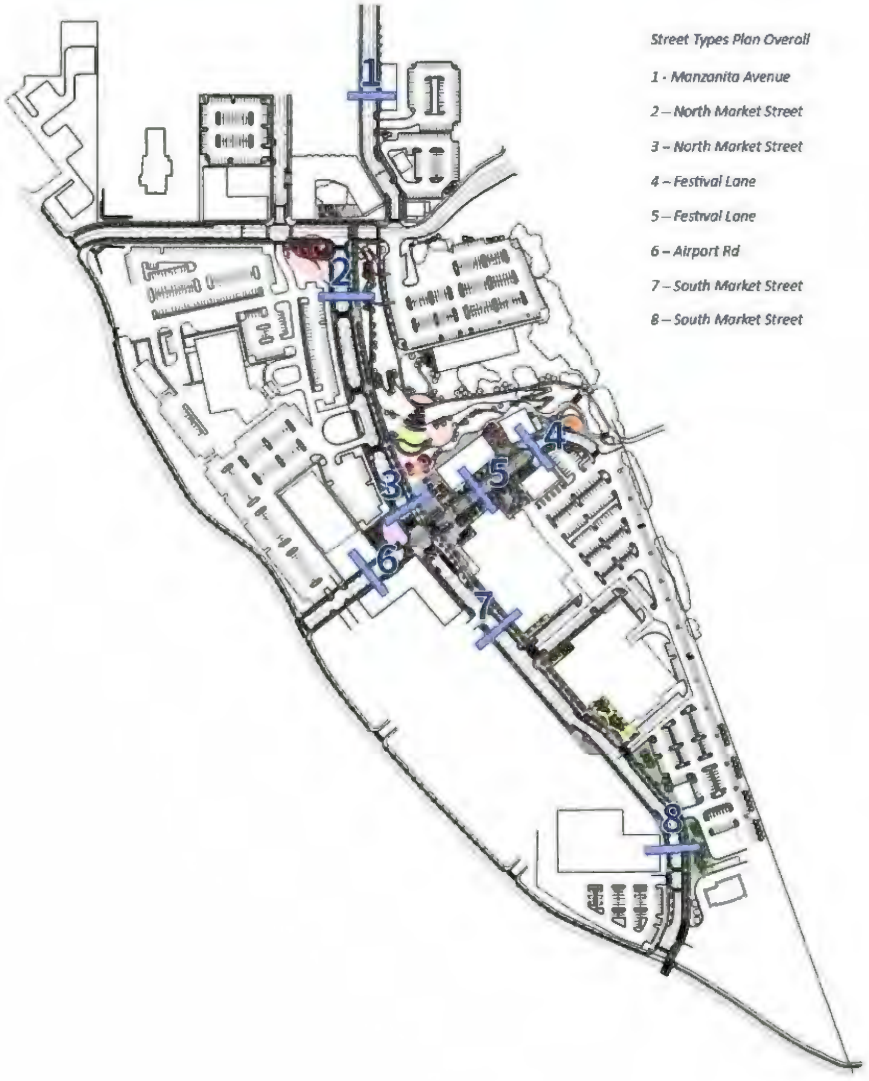


Figure 3-12: Water and Sanitary System Plan

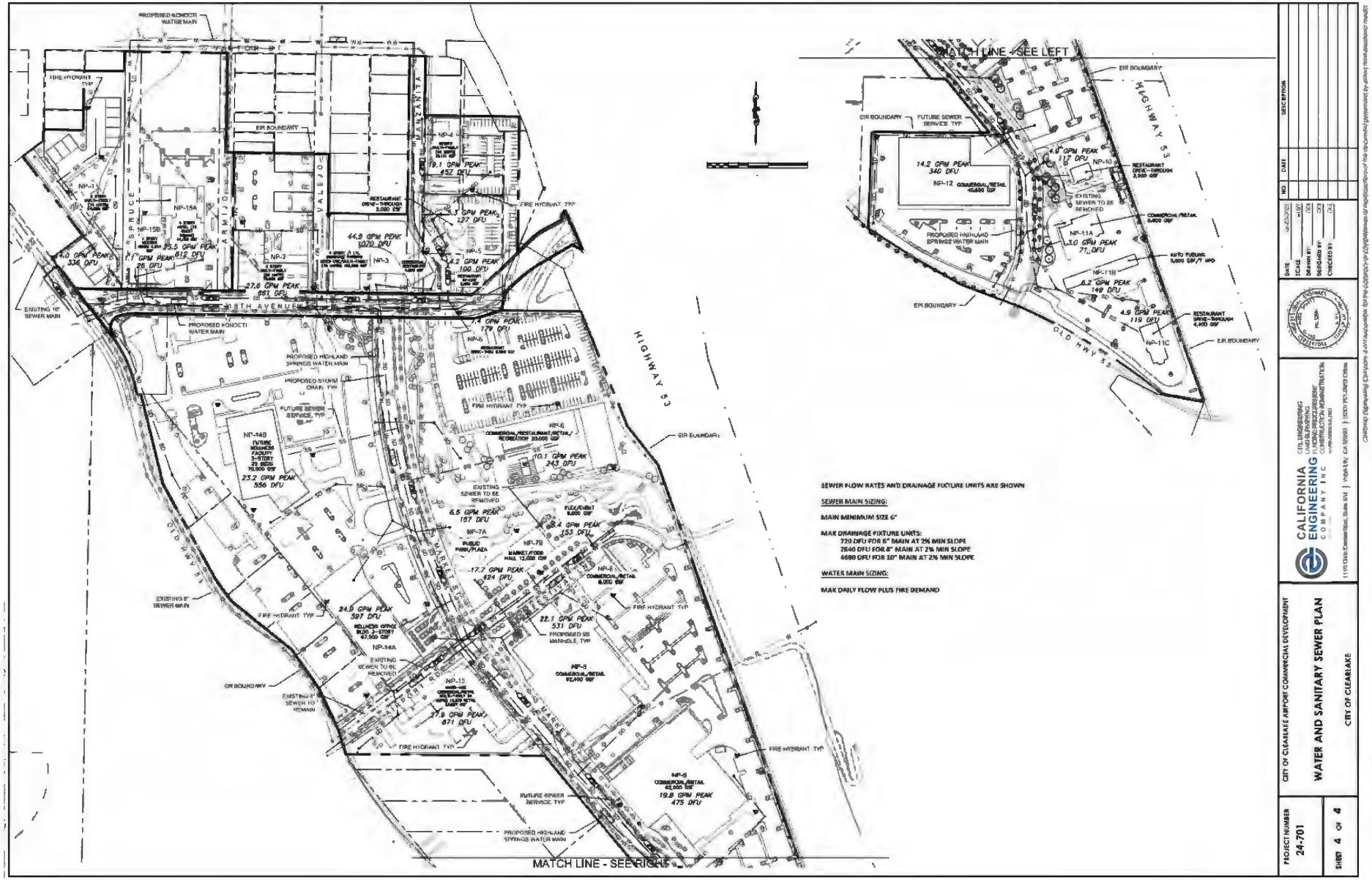


Figure 3-13: Project Drainage System

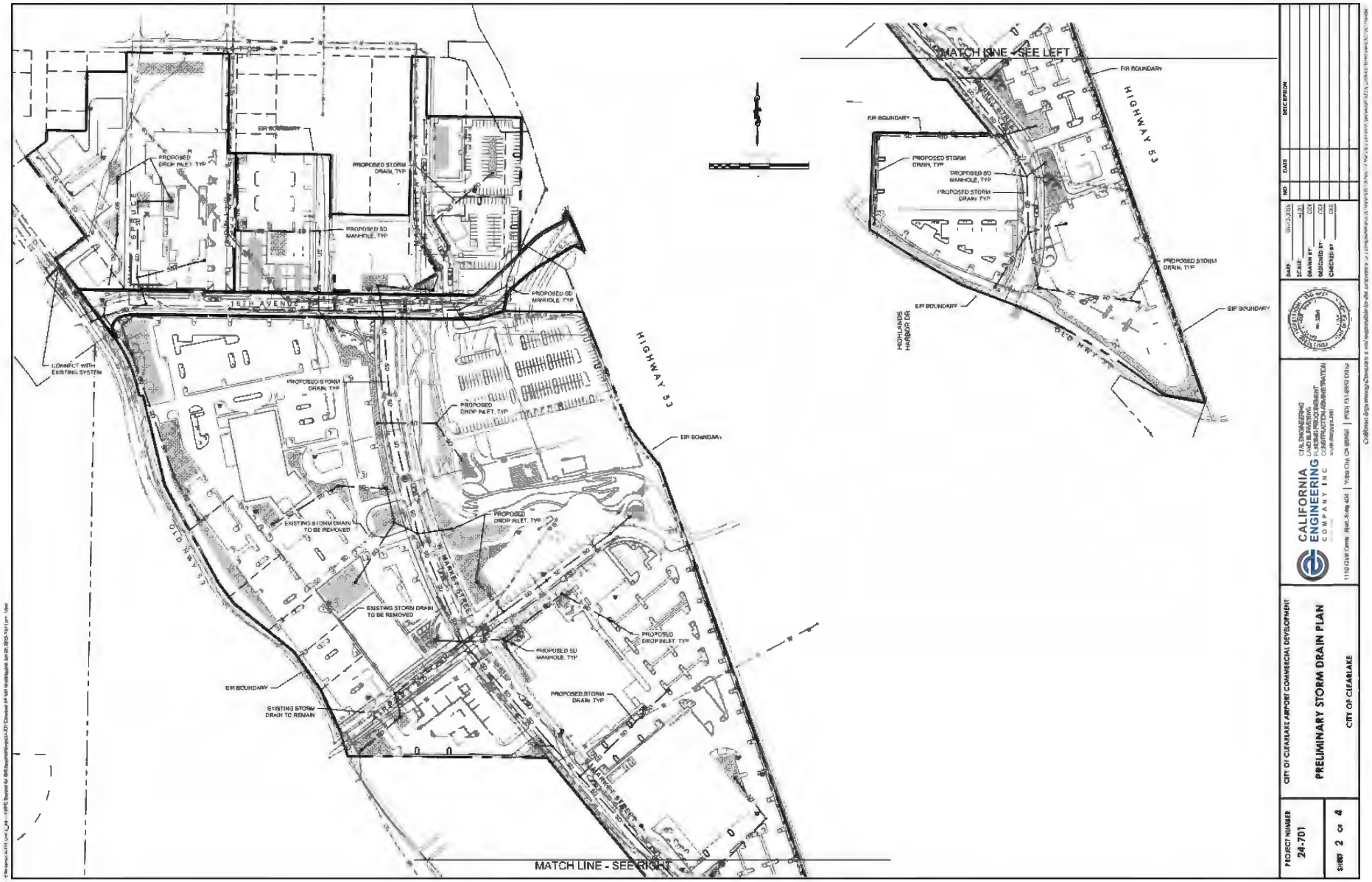


Figure 3-14: Historic Conditions of the Project Area

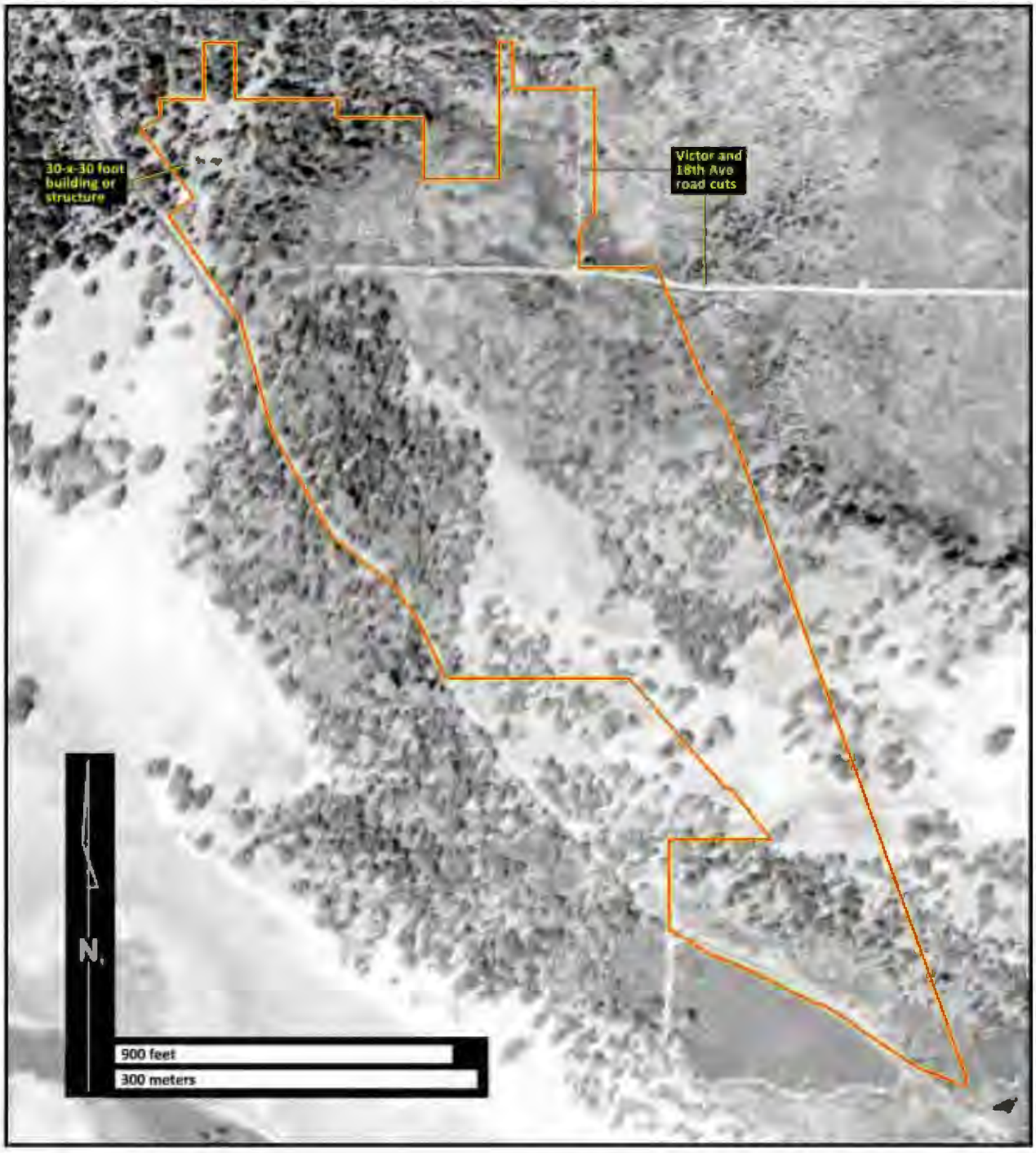


Photo 1 - Aerial photo of the Project Area circa 1956; depicting the area as undeveloped oak woodland and oak savannah with a few unimproved roads. The shoreline of tributaries to Clear Lake, not yet impounded, is far removed from the project boundary.



Photo 2 - Aerial photo of the project area circa 1959; the airfield, runway, jtwo-lane State Route 53 and associated access roads are depicted. Access roads for surrounding land uses are more prevalent though the land is still largely undeveloped. Shoreline and tributaries of Clear Lake show higher water levels.



Photo 3 - Aerial photo of the project area circa 1968; the project area is dominated by the airfield, runway (now paved), and considerable grading and excavation is evident. Surrounding land use has also intensified, with suburban development in various stages of build-out, including along the shoreline and tributaries of Clearlake to the southwest of the project area.



Photo 4 - Aerial photo of the project area circa 1982; the project area is dominated by the airfield, runway (now extended) and vegetation removal, grading, excavation and buildings are evident. Surrounding land use and suburban development, including commercial uses to the east and residential development along the Clearlake shoreline, are extensive and approaching their current state.



Photo 5 - Aerial photo of the project area circa 1993; the project area is dominated by the airfield. Surrounding land use and suburban development now largely reflect their current state.



Photo 6 - Aerial photo of the project area circa 2010; airfield operations have ceased. Recreational land use, e.g., a water park, dominates the southern portion of the project area. Surrounding land use near completely reflects current state.

4 INTRODUCTION TO THE ANALYSIS

4.0.1 Introduction

The environmental assessment of the Clearlake Airport Redevelopment Project (proposed project) is included in Chapters 4.1 through 4.13 of this EIR. Each technical chapter analyzes the potential impacts of the proposed project on a range of environmental issue areas in the vicinity of the project as they exist at the time when the Notice of Preparation (NOP) is published. The "environmental setting" would normally constitute the "baseline condition" against which project-related impacts are compared. Therefore, the baseline conditions for this EIR are based on conditions that existed in July 2024 when the NOP was published, unless noted otherwise. The format of each of the chapters is described below.

4.0.2 Determination of Significance

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance." In addition, the Guidelines state, "An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."[1]

Pursuant to the CEQA Guidelines, this EIR relies on *standards of significance* comprised of the following three levels of impact significance: 1) Less-than-significant impact; 2) Significant impact that can be reduced to a less-than-significant level with implementation of mitigation; and 3) Significant impact that cannot be mitigated to a level that is less than significant.

Each environmental area of analysis uses a distinct set of significance criteria. Where measurable and explicit quantification of significance is identified, such as violation of an ambient air quality standard, this measurement is used to assess the level of significance of a particular impact in this EIR. If criteria for determining significance relative to a specific environmental resource impact are not identified in the CEQA Guidelines, criteria were developed for this EIR.

The significance criteria are identified at the beginning of the Impacts and Mitigation Measures section in each of the technical chapters of this EIR. Although significance criteria are necessarily different for each resource considered, the provided significance levels ensure consistent evaluation of impacts for all alternatives considered.

[1] CEQA Guidelines Section 15382

4.0.3 Environmental Issues Addressed in this EIR

As discussed in detail in the Introduction chapter of this EIR, impacts identified in the Initial Study prepared for the proposed project as "Less Than Significant with Mitigation Measures," "Less Than Significant Impact," or "No Impact" are discussed in detail in Appendix C. All remaining issues identified in the Initial Study as "Potentially Significant" are discussed further within the subsequent technical chapters of this EIR. The following environmental issues are addressed in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Resources
- Geology and Soils
- Greenhouse Gases, Climate Change and Energy
- Hazards, Hazardous Materials and Wildfire
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Utilities
- Transportation and Circulation

Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant in Chapters 4.1 through 4.13, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable.* Chapter 5 of the EIR presents a discussion and comprehensive list of all significant and unavoidable impacts identified in Chapters 4.1 through 4.13.

4.0.4 Section Format

Each technical chapter addressing a specific environmental issue begins with an Introduction describing the purpose of the section. The introduction is followed by a description of the project's Existing Environmental Setting as the setting pertains to that particular issue. The setting description is followed by the Regulatory Setting and the Impacts and Mitigation measures discussion, which contains the *standards of significance*, followed by the *method of analysis*. The Impact and Mitigation discussion includes impact statements prefaced by a number in bold-faced type (for both project-level and cumulative analyses). An explanation of each impact and an analysis of the impact's significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement (see below). The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below.

4.x-1 Statement of Impact

Discussion of impact for the proposed project in paragraph format.

Statement of ***level of significance*** of impact with implementation of mitigation is included at the end of each impact discussion.

Mitigation Measure(s)

4.x-1(a) *Recommended mitigation measure(s) presented in italics and numbered in consecutive order.*

4.x-1(b) *etc., etc.*

4.1 AESTHETICS

4.1.1 Introduction

This chapter provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the Project site and the surrounding area. It also identifies potential aesthetic impacts associated with the Clearlake Airport Redevelopment Project and recommends mitigation measures to address them. Information in this section is derived primarily from the following sources cited in the reference Chapter of this report:

- Clearlake 2040 General Plan (City of Clearlake, 2017)
- Environmental Impact Report for the City of Clearlake 2040 General Plan (2017)
- City of Clearlake Municipal Code
- Draft Airport Redevelopment Area Development Manual (incorporated into the Project)

Other sources of information within this Chapter are cited separately as footnoted.

No comments regarding this topic were received during the NOP comment period for the EIR.

4.1.2 Existing Environmental Setting

The 54-acre Project site is located approximately 25 miles northeast of Healdsburg and 35 miles southeast of Ukiah within the City of Clearlake. The site is bounded by Victor Street to the north, State Route (SR) 53 to the east, and Old Highway 53 to the south and west. The site was previously developed with the Pearce Airport and has largely been used as a corporation yard by the City of Clearlake Public Works Department. The City's animal control facility is also located within the site (Figure 4.1-1). Native habitats do not exist on the site except for small, unconnected pockets of oak trees in the northern, southern and eastern areas. Existing uses in the central west area of the site include personal storage facilities, automotive uses, and other commercial/industrial uses (see Chapter 3 of this EIR which includes related maps and photographs of the site).

Land uses adjacent to the site include houses and a place of worship to the north and northwest, houses and fast-food restaurants to the south and southwest, and some commercial/retail uses at the southern end of the site. SR 53 abuts the site to the east; beyond SR 53 to the east are a hospital, a community center, a community college campus, government facilities, and commercial uses, including a shopping center. Beyond Old Highway 53 to the west there are various single- and multi-family residential uses, a school, and a market.

Scenic Highways and Corridors

Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community interest, the enhancement of property values, and the protection of aesthetically enhancing open spaces are all ways in which scenic corridors are valuable to residents, employees, and visitors. Scenic highways and corridors can also

strengthen the tourist industry. For many visitors, highway corridors provide their only experience of the region. Enhancement and protection of these corridors ensures that the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

Highway 175, a mountain road connecting Hopland to Lakeport and Highway 20 east to Ukiah are designated Scenic Highways by the State and by the County. The City of Clearlake has designated SR 53 through Clearlake as a Scenic Corridor. More information on these designations is presented later in this Chapter.

Light and Glare

There are two typical types of light intrusion: light that emanates from the interior of structures and passes out through windows, and light that projects from exterior sources such as street lighting, security lighting, outdoor signage, and landscape lighting. Either of these sources of light can result in "light spill," which is the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated. Street lighting is provided within the developed areas of the city either by the City of Clearlake or through private ownership. Light introduction can be a nuisance to adjacent residential areas and diminish the view of the clear night sky, and, if uncontrolled, can disturb wildlife in natural habitat areas. Other types of light intrusion can occur from brightly lit outdoor industrial areas, security lighting on the outsides of buildings, overhead lighting in surface parking lots, or neon or LED signage.

Existing sources of light or glare are not currently located on the Project site, except for minimal security lighting used within the City Public Works Yard and Animal Control Center. However, some street and sign lighting along Highway 53 associated with the nearby institutional and commercial uses, such as the Clearlake Shopping Center and the community college campus, are visible from the Project site.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility. Glare can be caused by window reflections, light reflecting on building materials, water reflections, vehicle headlights, or other natural or artificial sources of light. Sources of glare from uses surrounding the Project site include vehicle windows and headlights located within parking lots and Highway 53 to the southeast of the project site. These sources of glare are typically caused by vehicular lighting and reflection of natural sunlight.

4.1.3 Regulatory Context

Federal

There are no federal laws pertaining to aesthetics relating to the Project.

State

California Scenic Highway Program

The intent of the California Scenic Highway Program is "to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the State's scenic resources." Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code (section 260 et seq.).[1] The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are eligible for designation as scenic.

Scenic highway designation can provide benefits to the region. Scenic highways are protected from encroachment of inappropriate land uses, are free of billboards, and are generally required to maintain existing topographic contours and preserve important vegetative features. Only low-density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

As described above, there are no designated state-designated scenic highway corridors in the vicinity of the Project site. However, Highway 53 is eligible for designation as a State designated Scenic Highway.

Local

City of Clearlake 2040 General Plan

Several General plan objectives, policies and programs related to aesthetics are referenced below:

> Land Use Element
>
> Objective LU 4.3
> Create attractive gateways into Clearlake.
>
> Program LU 4.3.1.3
> Develop a gateway and landscape plan along Highway SR 53 beginning with more attractive entry monuments and landscaping treatments at Olympic Drive, Lakeshore Drive,

[1] Caltrans, 2019. Scenic Highways, California State Scenic Highways. List of eligible and officially designated State Scenic Highways. Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed June 4, 2026.

Dam Road and the north and south City entrances interchange. The City shall coordinate with Caltrans to secure use of the right-of-way for these improvements, with an agreement as to maintenance and liability.

Community Design Element

Objective CD 3.3
Promote architectural compatibility and quality design in new development.

Policy CD 3.3.1
The City shall ensure new development and signs meet the community's design vision.

City of Clearlake Municipal Code

Chapter 18-13 Scenic Corridor Combining Zoning District

Chapter 18-13 of the Zoning Code, Scenic Corridor Combining Zoning District ("SC overlay"), applies to both sides of Highway 53 within 300 feet of the edge of right-of-way.[2] These regulations are intended to preserve the scenic quality of the land immediately adjacent and visible from the highway. Under these regulations, a viewshed analysis needs to be conducted for the project within view of the highway to evaluate impacts on scenic resources that may include, but not be limited to:

- A unique, or massive rock formation(s)
- A Historic Building and/or location in accordance with the California Office of Historic Preservation
- A feature identified in applicable planning documents and/or reports/assessments as having special scenic value
- A feature integrated with its surroundings or overlapping scenic elements to form a panorama view, such as the waters of Clear Lake or Mount Konocti
- A vegetative or structural feature that has local, regional, or statewide importance, or
- An area or feature(s) determined by the City Council, Planning Commission and/or the Community Development Director at time of application submittal

In addition, the following property development standards apply within the SC overlay district:

A. The routing and siting of transmission lines, 50-kilovolts (kV) and above, shall avoid interfering with scenic views to the greatest extent possible, taking into account the design and size of the transmission towers, the nature of the landscape and the placement of the transmission towers in the landscape. New high voltage transmission facilities (50-kV lines and above) shall not be sited along a foreground view (up to 1/4 to 1/2 mile) of existing and potential State, County or City scenic highways as designated in the Clearlake General Plan, designated residential areas or major resorts unless no feasible alternatives

[2] Clearlake Municipal Code Section 18-13, Scenic Corridor (SC) Combining Zoning District. https://clearlake.municipal.codes/CMC/18-13. Accessed July 1, 2025.

exist. Where no feasible alternatives exist, undergrounding or other visual mitigation measures shall be imposed.

B. Grading and cut-and-fill shall be kept to a minimum and shall be prohibited whenever such activities will have an adverse impact on the scenic resources of the State highway.

C. Any exposed slopes resulting from grading shall be stabilized by plantings of compatible vegetation.

Chapter 18-15 Planned Development Combining Zone

Chapter 18-15 of the Zoning Code consists of a Planned Development (PD) overlay zone that can be added to any base zoning district in the City.[3] This zone is intended to provide for flexibility in the application of zoning standards to proposed development. It allows consideration of innovation in site planning and other aspects of project design and more effective design responses to site features, land uses on adjoining properties and environmental impacts, than the development standards of the underlying zone would produce without adjustment. It can apply to new developments that have significantly higher design quality, including more effective and attractive pedestrian orientation, environmental sensitivity, energy efficiency and the more efficient use of resources, than would be achieved through conventional design practices and standards.

Chapter 18-20 Property Development Standards

The Zoning Code includes various design standards for property development pertaining to lot coverage, building height, parking, screening, landscaping, fencing, and lighting. The Water Efficient Landscape standards in Chapter 18-20.130 include specific criteria for landscaping design, water efficiency, and irrigation system design that implement the California Water Conservation in Landscaping Act of 2006 (AB 1881).[4] The fencing design standards in Chapter 18-20.070 apply to residential and commercial fencing and are intended to achieve a balance between privacy and public concerns and promote aesthetically pleasing fencing.[5] Section 18-20.120 of the Zoning Code concerning night sky preservation provides lighting standards to curtail and minimize obtrusive light and glare.[6]

Chapter 18-21 Sign Regulations

Chapter 18-21 of the Zoning Code contains the City's sign regulations. These regulations provide requirements for the type, size, number, design, quality of materials, construction, illumination, location and maintenance of all signs in the City.[7]

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[3] Clearlake Municipal Code Section 18-15, Planned Development (PD) Combining Zone. https://clearlake.municipal.codes/CMC/18-15. Accessed July 1, 2025.
[4] Clearlake Municipal Code Subsection 18-20.130, Water Efficient Landscaping. https://clearlake.municipal.codes/CMC/18-20.130. Accessed July 1, 2025.
[5] Clearlake Municipal Code Subsection 18-20.070, Fences, Walls, Trash Enclosures and Hedges. https://clearlake.municipal.codes/CMC/18-20.070. Accessed July 1, 2025.
[6] Clearlake Municipal Code Subsection 18-20.120, Night Sky Preservation. https://clearlake.municipal.codes/CMC/18-20.120. Accessed July 1, 2025.
[7] Clearlake Municipal Code Section 18-21, Sign Regulations. https://clearlake.municipal.codes/CMC/18-21. Accessed July 1, 2025.

Chapter 18-40 Tree Preservation Regulations

Although trees are not typically considered a scenic resource in the Scenic Corridor regulations, they are considered an asset to the City in terms of creating a more aesthetically appealing place to live. Chapter 18-40 of the Zoning Code, Native Tree Protection, consists of regulations to protect native oak trees within the City.[8]

4.1.4 Impacts and Mitigation Measures

The Chapter below describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to aesthetics. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in the construction of a maximum of 540,000 square feet of commercial building area and three dwellings, using the assumptions of the General Plan (see Section 4.9, Land Use). Complete buildout of the project site, however, would be conducted over a long period of time beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel

[8] Clearlake Municipal Code Subsection 18-40.040, Tree Protection Regulations. https://clearlake.municipal.codes/CMC/18-40.040. Accessed July 1, 2025.

or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project's particular impacts as compared to General Plan build-out of the site.

4.1-1 Substantial adverse effects on scenic vistas (*Less than Significant*)

The project site is located on the site of the former Pearce Airport, which closed in 1994, and has since been identified as a regional destination that meets the needs of the area through new commercial, residential, shopping and restaurant venues in both the 1983 and current 2040 General Plans. The regional shopping center shown for the project site in the 2040 General Plan consists of about 120 acres and includes the existing Clearlake Shopping Center on the east side of Highway 53 and the project site on the west side of the highway.

Figure 4.1-2 presents a photographic survey of the site taken from the Project Biological Resources Assessment. The images depict a primarily vacant site with signs of previous use as an airport with some limited improvements, such as a few buildings and two woodland areas, one at the southeast portion of the site next to Old Highway 53 and the second at the northwest portion of the site south of Victor Street. As shown in the existing site photos, the Project site does not have any pedestrian views of Clear Lake, but other scenic resources are in view, such as Mount Konocti. As shown in Figure 4.1-3, perspective rendering of the Project development is expected to enhance the appearance of the site.

General Plan Evaluation

There are no officially designated scenic vistas or view corridors in the City of Clearlake, and the General Plan 2040 does not identify any specific vistas or view corridors for special protection in the future. Although the General Plan 2040 and associated EIR evaluated the project site to be a regional shopping center, the Project includes development of up to 250 dwelling units.

The Airport Redevelopment Area Development Manual ("Manual") serves as the regulatory mechanism for implementing the PD Zone (see Appendix C). The Manual describes the Project as the Preferred design for the site and establishes zoning-related requirements, design standards, and guidelines for the site's future development. It also includes procedures for reviewing subsequent development projects on the site.

The Manual addresses key Project design elements, including building architecture, land use, residential density, landscaping, lighting, circulation, fencing and other design details that align with applicable Zoning Code requirements. Developing the site in accordance

with the Project Development Manual, will support transformation of this site into an attractive, mixed-use development and would enhance the appearance and visual character of the site in a manner consistent with the General Plan. The Project would not impact scenic vistas to Clear Lake.

Conclusion

Implementation of the Proposed Project would result in ***less than significant*** impacts to scenic vistas.

Mitigation Measures

None required.

4.1-2 Substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality (*Less than Significant*)

Figure 4.1-2 presents a photographic survey of the site taken from the Project Biological Survey Report. The images depict a primarily vacant site with signs of previous use as an airport with some limited improvements, such as a few buildings and two woodland areas, one at the southeast area of the site next to Old Highway 53 and the second at the northwest area of the site south of Victor Street.

Figure 4.1-3 provides renderings of what the project would look like at various angles. As shown in the existing site photos, there are very limited scenic or attractive visual characteristics on the site other than two woodland areas at the southeast portion and the northwest section of the site, where there are many oak trees. It is noted that several trees are dead from a recent fire in the northwest section. Trees that are located in the public right-of-way of State Highway 53 are not subject to the City's preservation regulations. Those trees will not be impacted by the Project. Several trees will need to be removed to accommodate development, however. Details of this are discussed in Chapter 4.3, Biological Resources, of this EIR.

As shown in the Project's Preferred Site Plan, the woodlands in the southeast area of the project as well as all the individual protected oak trees would be removed and replaced with development. This area includes a section of the City's designated scenic corridor. The other woodland, located at the northwest, is not within a scenic corridor. In reviewing the hotel site plan, much of this woodland would also be impacted by development, as would the 108 individual protected oak trees throughout the site (see Figure 4.1-4). However, any native oak tree removal (trees of greater than 6-inch diameter at breast height) will be subject to the City's Native Tree Protection regulations (Chapter 18-40 of the Zoning Code). The Project Development Manual also encourages that these native trees be preserved and incorporated into future site development. Project development will result in significant landscaping, so an attractive development would result in some offset to the visual impact of tree removal.

Other aspects of project development, such as building design, landscaping, fencing, lighting, and circulation would also be subject to aesthetic criteria of the Project Development Manual which meet or exceed the City's zoning standards. The project will transform a vacant, somewhat blighted site, to an attractive mixed-use marketplace, residential, and wellness center for the community.

General Plan Evaluation

The General Plan acknowledges that there are no State-designated scenic highways in the City and did consider the impact of build out under the General Plan on the visual character or quality of public views of the area. The General Plan indicated that compliance with applicable regulations from the City of Clearlake Municipal Code would reduce aesthetic impacts to a level of non-significance. Although the General Plan and General Plan EIR evaluated the project site to be a regional shopping center, the project includes development of up to 250 dwelling units. Project development, as contemplated in the Project Development Manual, will result in enhancing the visual appearance of the site. These improvements are expected to result in a much-improved development as compared to piecemealing development of the site in compliance with the City's Zoning Code as contemplated in the General Plan. The Project will, therefore, exceed the expectations of the General Plan.

Conclusion

Implementation of the proposed Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality, and this impact is ***less than significant***.

Mitigation Measures

None required.

4.1-3 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (*Less than Significant*)

The project would increase light and glare on the site by introducing new development on the site. Exterior lighting would comply with the City's lighting standards (for minimal light bleed and minimal night sky impacts) and be designed consistent with the Project Development Manual. Design Manual lighting standards include:

> *3.2.6 Site Lighting*
> *Lighting should be incorporated to create a safe, active, and accessible environment as both a practical and exciting visual site design element. The site will have a continuity of manufacturer and product line, so streetlights, pedestrian lights, bollards, and wall-mounted fixtures are consistent across the site. Effectively branding the development with one coordinated design style, uniform illumination*

> *levels and exterior building illumination will create a safe and visually appealing environment.*
>
> *3.2.6.1 Lighting fixtures should provide appropriate and adaptive illumination levels for all site environments, create inviting spaces, and enhance site safety during nights and evenings.*
>
> *3.2.6.2 Lighting fixtures should not impact the experience of surrounding site elements and buildings, by reducing unnecessary glare or light spill. Dark Sky approved fixtures are preferred.*
>
> *3.2.6.3 Lighting fixtures should minimize environmental impact and avoid upward illumination which contributes to light pollution. Not remove any housing units.*

Project lighting for streets and parking lot lights is shown in Figure 4.1-5. Street lighting would consist of 30-foot-tall poles incorporating down-lighted, shrouded 60-watt LED standards placed approximately 100 to 150 feet on center along the main roadways. Parking lot lighting would consist of matching 18-foot-tall poles at 40 watts.

General Plan Evaluation

The General Plan EIR considered the impact of build-out under the General Plan for light and glare. Although the General Plan and General Plan EIR evaluated the project site to be a regional shopping center, the project includes development of up to 250 dwelling units. If the Project site were to be developed piecemeal as a commercial center, project lighting used would be consistent with the City's Standard Street Light, No. 401, from the City's 2012 Construction Standards, as shown in Figure 4.1-6. This lighting consists of a standard light design with 150-watt lights that do not incorporate a shroud to control light bleed and would result in much more light glare than the proposed project lighting.

Conclusion

Implementation of the proposed Project would result in additional light and glare since it would transform vacant property with development. Such light and glare impacts were previously considered in the General Plan EIR and considered less than significant. The Project proposes reduced lighting impacts by using parking and roadway lighting that is less impacting than the City's standard lighting fixtures. In addition, lighting design guidelines in the Project Development Manual would result in further reductions in potential and cumulative illumination levels. The project would thus have fewer lighting impacts than those contemplated under the General Plan. Project impacts related to light and glare are therefore considered ***less than significant.***

Mitigation Measures

None required.

Cumulative Impacts & Mitigation Measures

4.1-4 Cumulative effects on visual character, quality, and resources in the region (*Less than Significant*)

Under cumulative conditions, the City of Clearlake will continue to build-out, adding to the urban landscape and decreasing the number and quality of scenic vistas. As new buildings are constructed, they may obstruct existing scenic views of Clear Lake and Mount Konocti, or sweeping agricultural areas in unincorporated Lake County. Cumulative development is not anticipated to adversely affect designated or eligible State Scenic Highways because the only eligible State Scenic Highway is Highway 53 which travels through the City and next to the Project site.

Build-out of the General Plan for the City and the surrounding unincorporated areas of the County could result in changes to the visual character and quality of the City through development of vacant areas and/or changes to the character of existing communities. In order to reduce the visual impacts of urban development, development within the City is required to be consistent with the General Plan, the Project Development Manual and the Zoning Code. These standards include specifications for building height, massing, and orientation, exterior lighting standards, and landscaping standards.

General Plan Evaluation

Existing developed areas in the City currently generate some light and glare, and new development that is facilitated by the General Plan would result in increased light and glare. Some elements of the built environment - such as parking lots, commercial buildings, and signs - may emit light 24 hours a day. New sources of daytime glare could include new buildings with reflective surfaces, such as office buildings with glazed windows, and vehicles. Such light and glare could affect sensitive receptors.

Conclusion

Project conformance with the Zoning Code and the Development Manual, in combination with other cumulative development conforming with Zoning Code design standards would result in ***less than significant*** impacts related to cumulative degradation of the existing visual character or quality of the site and its surroundings.

Mitigation Measures

None required.

Figure 4.1-1: History of Buildings & Structures ca. 1967-1993

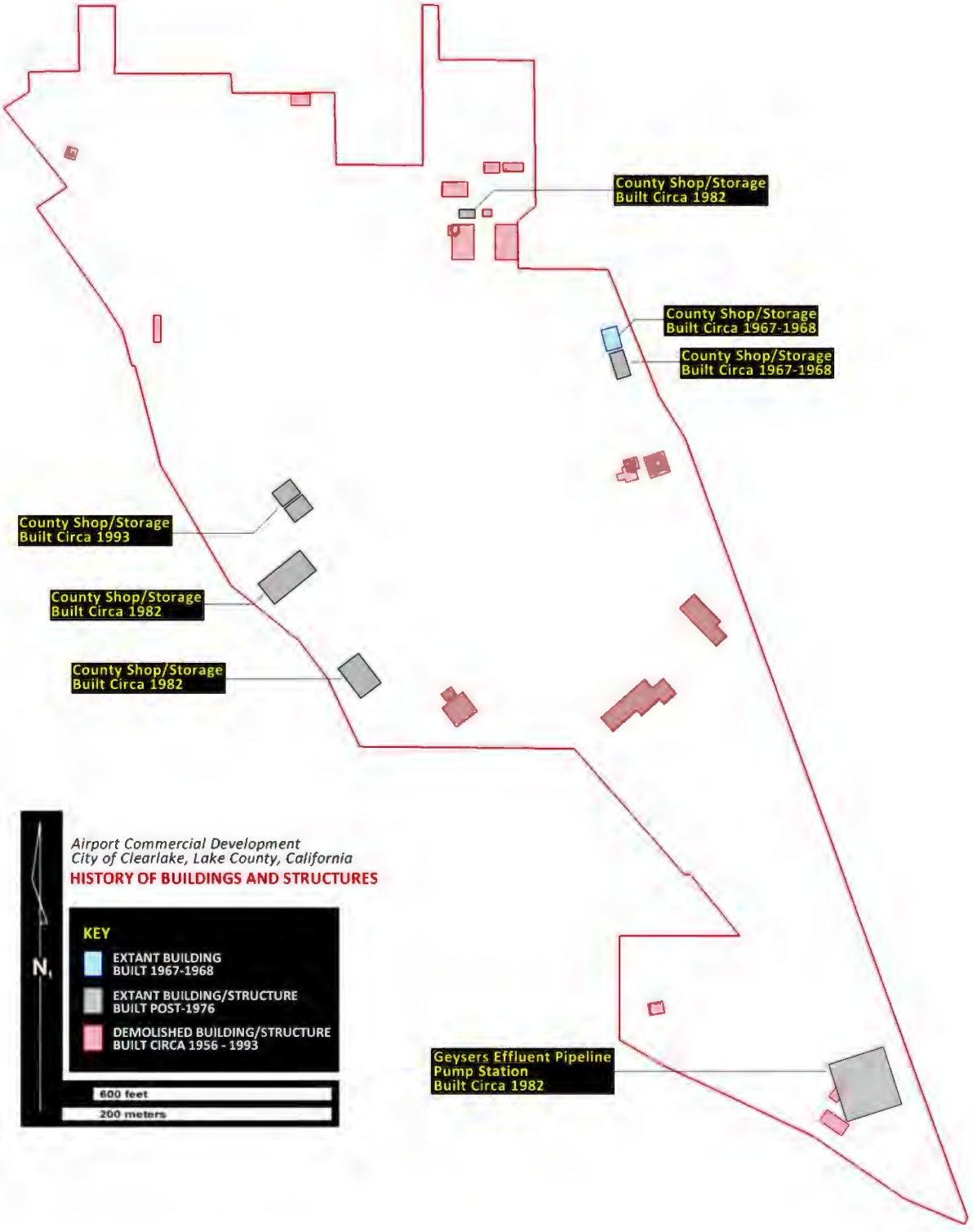


Figure 4.1-2: Site Photos



Photo 1 - Entrance into the western section of the Project area from Airport Road. Photo is looking north along the western access road running north-to-south in the Project area. June 2024.



Photo 2 - From Airport Road looking into the southern section of the Project area. Project area is heavily disturbed from historical development and land use as an airport and corporation yard. June 2024.



Photo 3 - Southeastern portion of the Project area from the Airport Road entrance into the Project area. June 2024.



Photo 4 - Looking north from the central section of the of the Project area. Large disposal mounds, background left, are located within the central section of the Project area. June 2024.



Photo 5 – Entrance to the eastern section of the Project area via18th Avenue. June 2024.



Photo 6 - Existing burned trees in the photo are from a more recent fire that burned some sections of the Project area. Photo of northeastern section of the Project area. June 2024.



Photo 7 - Looking into the northwestern section of the Project area. June 2024.



Photo 7 - From the northwestern section of the Project area looking southwest. Old Highway 53, background right, runs along the western edge of the overall Project area. June 2024.



Photo 8 - Looking north from the northern border of the Project area with 21st Avenue/Victor Street visible through the trees in center background. June 2024.



Photo 9 - Looking south from the northern border of the Project area. June 2024.



Photo 10 - Turnout along western border of the Project area and Old Highway 53. Looking south with the western edge of the Project area located to the left. June 2024.



Photo 11 - The southwestern section of the Project area. Large woodland area is located within the EIR Boundary. June 2024.



Photo 12 - Southern section of the Project area looking north with Highway 53 to the right that runs north to south along the eastern border of the Project area. June 2024.



Photo 13 - Southwestern section of the Project area within the wooded area looking south with Highway 53 running along the left/eastern border of the Project area. June 2024.



Photo 14 - Western section of the Project area where Airport Road enters from Old Highway 53 into the Project area. Photo looking west at Airport Road. June 2024.



Photo 15 - Central section of the Project area documenting disturbance, disposal mounds, and disturbed non-native annual grassland and ruderal vegetation. June 2024.



Photo 16 - Central section of the Project area documenting disturbance, disposal mounds, and disturbed non-native annual grassland and ruderal vegetation. May 2025.



Photo 17 - Mapped oak woodland within the southwestern section of the Project area and dominated by blue and interior live oak and foothill pine trees. May 2025.



Photo 18 - Southern end of the Project area with Old Highway 53 in the photo. Area dominated by disturbed non-native annual grassland and ruderal vegetation. May 2025.



Photo 19 - Mapped oak woodland within the northern section of the Project area within the proposed hotel parcel. Interior live oak and foothill pine trees dominate. May 2025.



Photo 20 - Recent fires have burned many of the trees along the eastern and western sections of the Project area north of Airport Road. Most have been foothill pine trees. May 2025.

Figure 4.1-3: Perspective Renderings of the Preferred Plan



Scene 1 - Overview of the Project Area, looking northwest over SR 53 and the proposed pedestrian bridge (foreground center) to Clear Lake and Mount Konocti in the distance.



Scene 2 - Overview of the intersection of Festival Lane and Market Street, looking north.



Scene 3 - View along Market Street.



Scene 4 - View of pedestrian sidewalk and drought-tolerant mixed xeric-oasis native vegetation landscaping.



Scene 5 - View along Festival Lane.

Figure 4.1-4 Existing Oak Trees and Woodlands

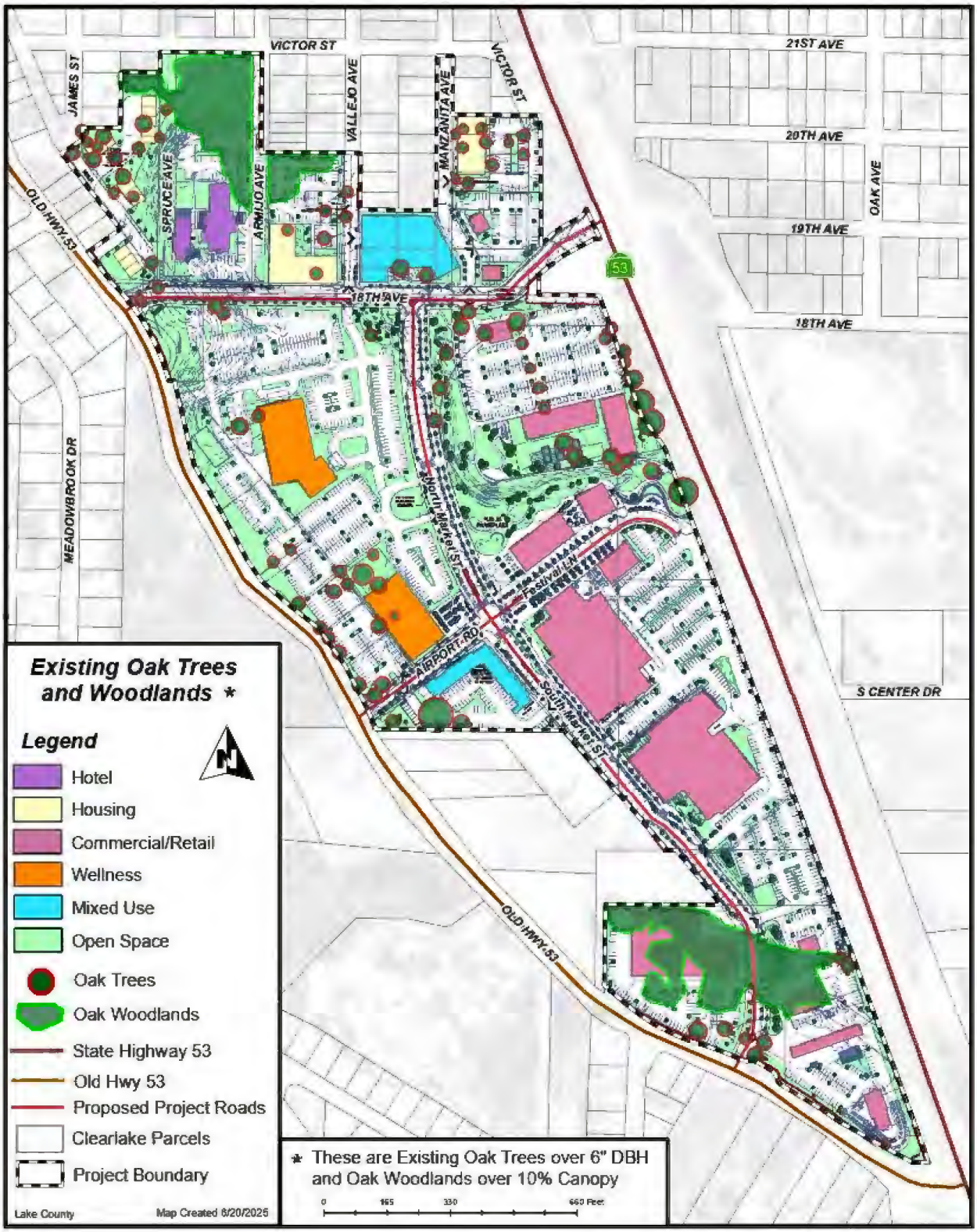
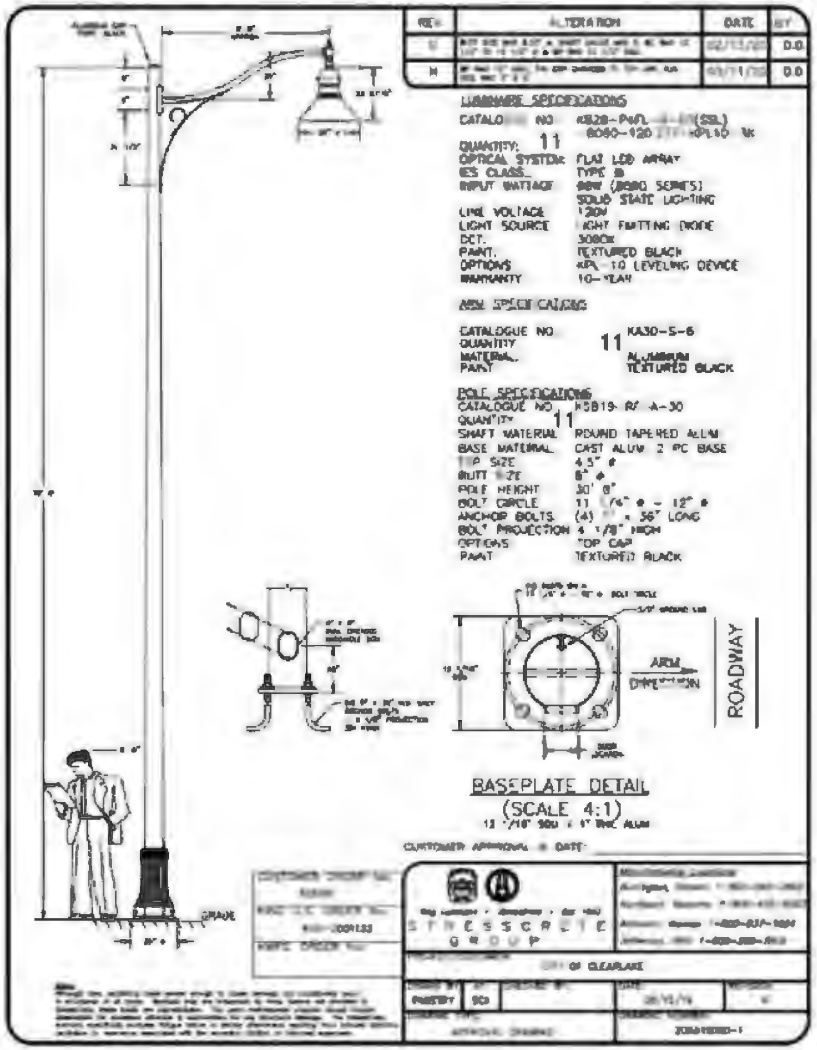
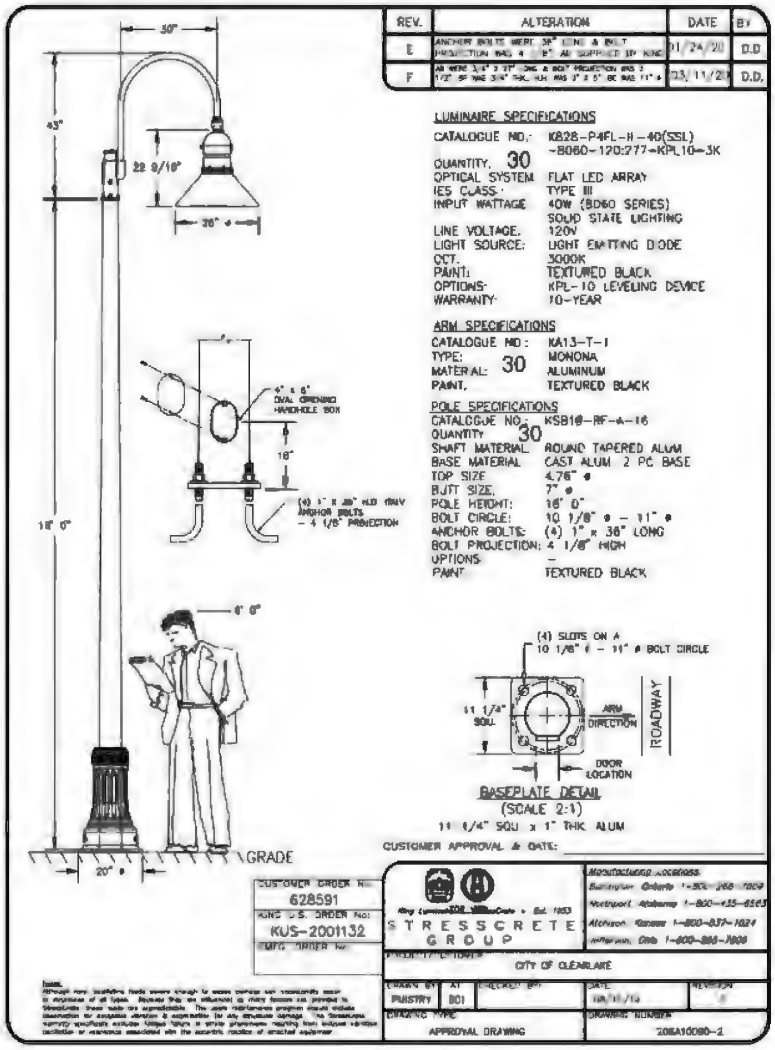


Figure 4.1-5 Lighting Design Standards

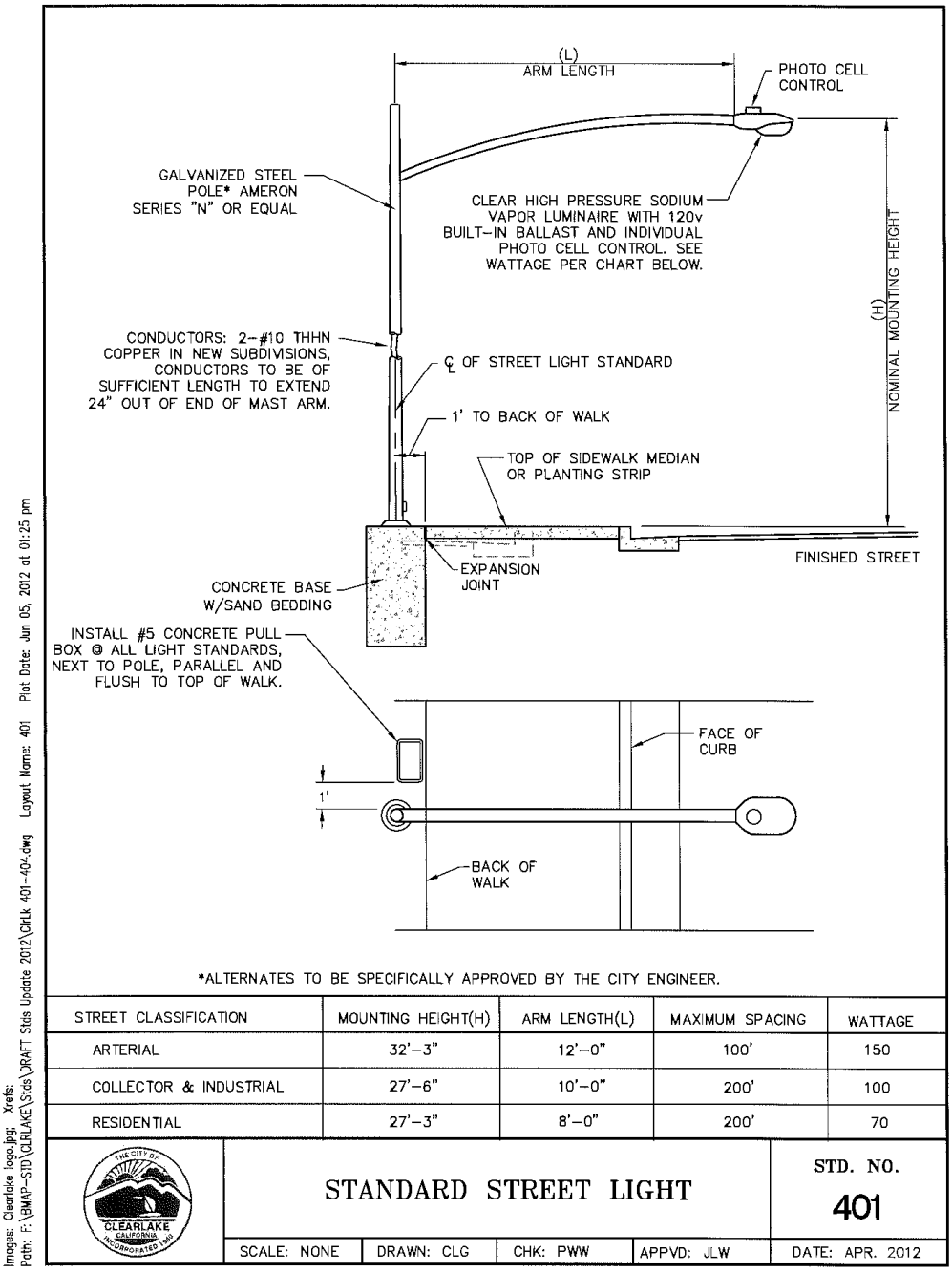


Design Standard- Street Lighting, Project Development Manual



Design Standard – Parking Lot Lighting, Project Development Manual

Figure 4.1-6 City Street Light Standard



Design Standard – Streetlighting, City of Clearlake Construction Standard, 2012.

Figure 4.1-7 Project Sign Program (from Development Manual)

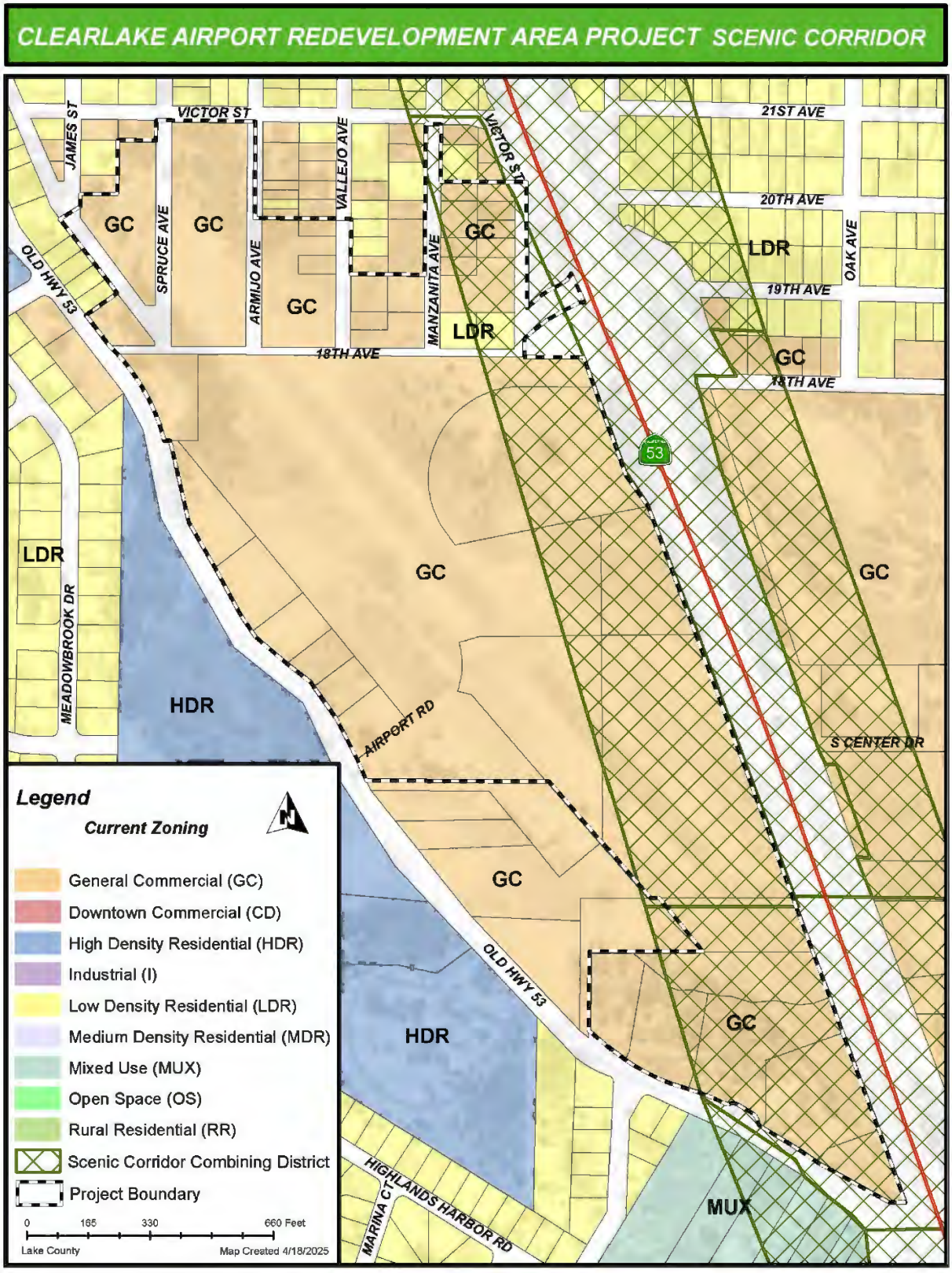


Design Concept - Primary and Project Entrance Signage



Design Concept - Directional & Wayfinding Signage

Figure 4.1-8 Scenic Corridor Zoning



4.2 AIR QUALITY

4.2.1 Introduction

The Air Quality section of this EIR describes the effects of the Proposed Project on local and regional air quality. The section includes a discussion of the existing air quality setting, construction-related air quality impacts resulting from grading and equipment emissions, direct and indirect emissions associated with the project, the impacts of these emissions on both the local and regional scale, and mitigation measures warranted to reduce or eliminate any identified significant impacts. The Chapter utilizes information obtained from the Clearlake 2040 General Plan, the Clearlake General Plan Environmental Impact Report, and the California Emissions Estimator Model (CalEEMod) version 2022.1.1.29.

No comments were received on air quality during the public review period or scoping meetings for the Notice of Preparation for the Proposed Project.

4.2.2 Existing Environmental Setting

The following information provides an overview of the existing environmental setting in relation to air quality within the project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status, regional air quality plans, local air quality monitoring, odors, sensitive receptors, and greenhouse gases are discussed.

Air Basin Characteristics

Air quality is affected by the rate, amount, and location of pollutant emissions and the associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions (e.g., wind speed, wind direction, and air temperature), in combination with local surface topography (e.g., geographic features such as mountains and valleys), determine how air pollutant emissions may affect local air quality.

The project site is located in the City of Clearlake, within Lake County, California. Lake County is located in the Lake County Air Basin (LCAB), which is under the jurisdiction of the local air quality agency, the Lake County Air Quality Management District (LCAQMD). The LCAB is located approximately 80 miles north of San Francisco and is within the northern Coast Ranges of California, which topographically consist of long, parallel ridges that trend from the southwest to the northwest.

Lake County has a Mediterranean climate, typified by warm and dry summers and cool and moist winters. Local variation in the climate occurs throughout the County due to the mountainous terrain. Rainfall predominantly occurs during the months of November through March. Winds are generally light due to the sheltering effect of surrounding mountains, with predominant winds occurring from the northwest, particularly in the summer months, and wind in the winter months generally more directionally variable.

The LCAB is sparsely populated, is remote from large urban areas, and has few significant sources of air pollution emissions. For such reasons and due to the topography of the area, the LCAB is not largely influenced by the transport of air pollutants from other areas into the air basin. At times, Lake County suffers from particulate matter air pollution blown in from forest fires in the North Coast Air Basin or within Lake County itself.

Ambient Air Quality Standards

The federal Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (US EPA or EPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants, known as criteria pollutants, because the criteria air pollutants could be detrimental to human health and the environment. The criteria pollutants include particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. Primary standards are the set of limits based on human health, and secondary standards are the set of limits intended to prevent environmental and property damage. A summary of the criteria pollutants, their characteristics, health effects, and typical sources is provided in Table 4.2-1. In addition, brief descriptions of each criteria pollutant are provided below. Of the pollutants, particle pollution and ground-level ozone are the most widespread health threats.

States may also establish their own ambient air quality standards, provided the State standards are at least as stringent as the NAAQS. Under the California Clean Air Act (CCAA), California has established California Ambient Air Quality Standards (CAAQS) pursuant to Health and Safety Code Section 39606(b) and its predecessor statutes. The State of California has established air quality standards for some pollutants not addressed by federal standards, including hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. The NAAQS and CAAQS summarized in Table 4.2-2 represent safe levels that avoid specific adverse health effects. As shown in the table, in general, the CAAQS are more stringent, particularly for ozone and particulate matter, than the NAAQS.

Table 4.2-1: Summary of Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	• Eye irritation • Wheezing, chest pain, dry throat, headache, or nausea • Aggravated respiratory disease such as emphysema, bronchitis, and asthma	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	• Impairment of oxygen transport in the bloodstream • Impaired vision, reduced alertness, chest pain, and headaches • Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	• Lung irrigation and damage • Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	• Aggravation of chronic respiratory disease • Heart and lung disease • Coughing • Bronchitis • Chronic respiratory disease in children • Irregular heartbeat • Nonfatal heart attacks	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	• Loss of appetite, weakness, apathy, and miscarriage • Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract	Industrial sources and combustion of leaded aviation gasoline.

Source: California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed August 7, 2025.

Table 4.2-2: Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	1 Hour	20 ppm	35 ppm	-
	8 Hour	9 ppm	9 ppm	
Nitrogen Dioxide	1 Hour	0.18 ppm	100 ppb	-
	Annual Mean	0.030 ppm	0.053 ppm	Same as primary
Sulfur Dioxide	1 Hour	0.25 ppm	75 ppb	-
	3 Hour	-	-	0.5 ppm
	24 Hour	0.04 ppm	0.14 ppm	-
	Annual Arithmetic Mean	-	0.030 ppm	-
Respirable Particulate Matter (PM_{10})	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	Same as primary
	Annual Mean	20 $\mu g/m^3$	-	
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	-	35 $\mu g/m^3$	Same as primary
	Annual Mean	12 $\mu g/m^3$	9 $\mu g/m^3$	15 $\mu g/m^3$
Lead	30 Day Average	1.5 $\mu g/m^3$	-	-
	Calendar Quarter	-	1.5 $\mu g/m^3$	Same as primary
	Rolling 3-Month Average	-	0.15 $\mu g/m^3$	
Sulfates	24 Hour	25 $\mu g/m^3$	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.01 ppm	-	-
Visibility Reducing Particles	8 Hour	See note below.	-	-

ppm = parts per million
ppb = parts per billion
$\mu g/m^3$ = micrograms per cubic meter

Source: California Air Resources Board. Ambient Air Quality Standards. https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed August 7, 2025.

Pollutants

Criteria Pollutants

Ozone

Ozone (O_3) is a reactive gas consisting of three oxygen atoms. In the troposphere, O_3 is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed from a complex chemical reaction between reactive organic gases (ROG) and NO_X emissions in the presence of sunlight. Unlike other pollutants, O_3 is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation. Mobile sources are the primary sources of O_3 precursors, including cars, trucks, buses, construction equipment, and agricultural equipment.

Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but affect healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Ground-level O_3 reaches the highest concentration during the afternoon and early evening hours. High concentrations occur most often during the summer months. Ground-level O_3 is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen.

Reactive Organic Gas

Reactive Organic Gas (ROG) is a reactive chemical gas composed of hydrocarbon compounds typically found in paints and solvents and which contributes to the formation of smog and O_3 by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

Oxides of Nitrogen

Oxides of Nitrogen (NO_X) are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur Dioxide is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. The sulfur oxide particles are also a component of PM_{10}.

Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution may be made up of several components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The US EPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. EPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic region of the lungs.

- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.

- "Ultrafine particles (UFP)," are very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately but is analyzed as part of $PM_{2.5}$.

PM_{10}, $PM_{2.5-10}$, and UFP include primary pollutants (emitted directly to the atmosphere) as well as secondary pollutants (formed in the atmosphere by chemical reactions among precursors). Generally, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include the same sources plus roads

and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, and, thus, essentially persists forever. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were previously a major source of airborne lead from leaded fuels, but leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) and could become re-suspended into the air.

Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead is also known to cause cancer.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by the California Air Resources Board (CARB) is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen Sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 ppm can cause death).

Vinyl Chloride

Vinyl Chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Non-Criteria Air Pollutants

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary source types of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to LCAQMD stationary source permit requirements. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains.

Cars and trucks release at least 40 different TACs. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM), which is composed of carbon particles and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of such chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NO_X. Due to the published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects, CARB identified DPM as a TAC in 1998.

More than 90 percent of DPM is less than one micrometer in diameter, and, thus, DPM is a subset of $PM_{2.5}$. As a California statewide average, DPM comprises about eight percent of $PM_{2.5}$ in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the State. Most major sources of diesel emissions, such as ships, trains, and trucks, operate in and around ports, rail yards, and heavily traveled roadways. Such areas are often located near highly populated areas. Thus, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is a term used for several types of naturally occurring fibrous minerals, typically associated with serpentine and ultramafic rocks, found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Serpentine and ultramafic rocks and soils derived from such rocks are abundant in parts of Lake County. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

The project site is not located in an area of the County identified for known ultramafic, ultrabasic, serpentine rock and soils.[1 & 2]

[1] California Department of Conservation. A General Location Guide for Ultramafic Rocks in California- Areas More Likely to Contain Naturally Occurring Asbestos. https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf. Accessed August 7, 2025.

[2] Lake County. Lake County Parcel Viewer. Lake County Parcel GIS Web Map Viewer. Accessed August 21, 2025.

Attainment Status and Air Quality Plans

Areas that do not meet the NAAQS presented above are designated by the US EPA as nonattainment areas. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The CAA requires areas violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the federal CAA amendments and would achieve air quality goals when implemented.

The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of CAAQS. For each nonattainment area classification, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment areas, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts with air quality that is in violation of CAAQS are required to prepare an air quality attainment plan that lays out a program to attain the CCAA mandates.

The LCAB is the only air basin in the State that is classified as an attainment area for all CAAQS.[3] Because the CAAQS are more stringent than the NAAQS, the LCAB is designated attainment for all NAAQS as well. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared.

Local Air Quality Monitoring

Air quality is monitored by LCAQMD and CARB at various locations in the region that provide information on ambient concentrations of criteria air pollutants and TACs to help determine which air quality standards are being violated, and to direct the LCAQMD emission reduction efforts, such as developing rules, regulations, incentive programs, etc. Table 4.2-3 shows historical occurrences of pollutant levels exceeding the State and federal ozone and PM AAQS for the three-year period from 2022 to 2024, the years for which the most recent data are available. The number of days that each standard was exceeded is presented as well. As shown in the table, there were no exceedances of AAQS for ozone or particulate matter. The US EPA uses such data (air quality monitoring data for the most recent three-year period), as well as several other factors, in making final determinations regarding area designations.

[3] California Air Resources Board. *California Air Basins – Lake County*. 2025. http://www.arb.ca.gov/knowzone/basin/basin.swf. Accessed June 2016.

Table 4.2-3: Air Quality Data Summary for the Lake County Air Basin 2022-2024

Pollutant	Standard	Days Standard Was Exceeded		
		2022	2023	2024
Ozone	State 1-Hour	0	0	0
	Federal 1-Hour	0	0	0
	State 8-hour	0	0	0
	Federal 8-Hour	0	0	0
PM_{10}	State 24-Hour	0	0	0
	Federal 24-Hour	0	0	0
$PM_{2.5}$	Federal 24-Hour	0	0	0

* Data not available.
** Expressed in micrograms per cubic meter ($\mu g/m^3$).

Source: California Air Resources Board. Aerometric Data Analysis and Management (iADAM) System. http://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed August 2025.

Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative or formulaic methodologies to determine the presence of a significant odor impact do not exist. Adverse effects of odors on residential areas and other sensitive receptors warrant the closest scrutiny; but consideration must also be given to other land use types where people congregate, such as recreational facilities, worksites, and commercial areas. The potential for an odor impact is dependent on several variables including the nature of the odor source, distance between a receptor and an odor source, and local meteorological conditions.

One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

Odiferous compounds could be generated from a variety of source types including both construction and operational activities. Examples of common land use types that typically generate significant odor impacts include but are not limited to wastewater treatment plants; sanitary landfills; composting/green waste facilities; recycling facilities; petroleum refineries; chemical manufacturing plants; painting/coating operations; rendering plants; and food packaging plants.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, fueling stations, truck stops, or distribution centers, could be found to be objectionable. State Route (SR) 53 is located along the project site's eastern border.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by preexisting health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Figure 4.2-1 depicts the closest sensitive receptors to the project site, which are briefly summarized as follows:

- Residential uses are located immediately north and northwest of the project site along the northwestern boundary of the project site immediately west of Old Highway 53, along Old Highway 53 immediately west of the project site, and south of the project site across Old Highway 53
- Two preschools are located within proximity to the site, one approximately 1,140 feet northeast of the project site across SR 53 and the other approximately 1,500 feet northwest of the project site
- A middle school, Obsidian Middle School, is located approximately 1,100 feet east of the project site across SR 53
- A high school, Clearlake Community School, is located approximately 200 feet west of the project site across Old Highway 53
- A college, Woodland Community College, is located approximately 950 feet east of the project site across SR 53
- A hospital, Adventist Health, is located approximately 350 feet east of the project site across SR 53
- Two community churches are located in proximity to the project site, one approximately 200 feet northwest of the site, and the other approximately 1,200 west of the site

4.2.3 Regulatory Context

Air pollutant emissions are monitored through the efforts of various international, federal, State, and local government agencies. The agencies work jointly and individually to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the City of Clearlake area are discussed below.

Federal Regulations

Federal Clean Air Act

The most prominent federal regulation is the CAA. Implemented and enforced by the US EPA, the federal Clean Air Act (CAA) requires the EPA to set NAAQS and designate areas with air quality not meeting NAAQS as nonattainment areas. The EPA is responsible for enforcement of NAAQS for atmospheric pollutants and regulates emission sources that are under the exclusive authority of the federal government. EPA air quality mandates are drawn primarily from the CAA, which was signed into law in 1970. Congress substantially amended the CAA in 1977 and in 1990.

The EPA has adopted policies consistent with the CAA requiring states to prepare SIP that demonstrate attainment and maintenance of the NAAQS. NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM2.5 ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments. Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing.

Federal Hazards Air Pollutants Program

The 1977 CAA Amendments required the USEPA to identify National Emissions Standards for Hazardous Air Pollutants (NESHAPs) to protect the public health and welfare. Hazardous air pollutants include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Heavy-duty Engines and Vehicles Fuel Efficiency Standards

In 2010, President Obama issued a memorandum directing federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and National Highway Traffic Safety Administration (NHTSA) proposed stringent, coordinated federal GHG and fuel economy standards for model year 2017–2025 light-duty vehicles.

State Regulations

California has adopted a variety of regulations aimed at reducing air pollution. The adoption and implementation of the key State legislation described in further detail below demonstrates California's leadership in addressing air pollutant emissions. Only the most prominent and applicable State air quality-related legislation is included below, presented in alphabetical order; however, an exhaustive list of California air quality legislation can be found at the CARB website.

Asbestos Airborne Toxic Control Measure

The Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (under Title 17, Section 93105, of the California Code of Regulations [CCR]) went into effect in 2002, which requires each air pollution control and air quality management district to implement and enforce the requirements of section 93105 and propose their own asbestos ATCM as provided in Health and Safety Code section 39666(d).[4]

AB1807- Toxics Air Contaminant Identification and Control

AB 1807, enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. CARB is responsible for the identification and control of TACs, except pesticide use, which is regulated by the California Department of Pesticide Regulation.

AB2588 - Air Toxics Hot Spots Information and Assessment Act

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), California Health and Safety Code section 44300 et seq., provides for the regulation of over 200 TACs, including DPM, and is the primary air contaminant legislation in California. Under the act, local air districts may request that a facility account for TAC emissions. Local air districts then prioritize facilities based on emissions, and high-priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public.

California Building Standards Code

California's building codes (CBC), under Title 24 of CCR, are published on a triennial basis, and contain standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Standards Commission (CBSC) is responsible for the administration and implementation of each code cycle, which includes the proposal, review, and adoption process. Supplements and errata are issued to make necessary mid-term corrections. CBC standards apply State-wide; however, a local jurisdiction may adopt stricter amendments if it makes a finding that it is reasonably necessary due to local climatic, geological, or topographical conditions.

[4] California Air Resources Board. *2002-07-29 Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations.* https://ww2.arb.ca.gov/resources/documents/naturally-occuring-asbestos-rulemaking. Accessed August 2025.

California Green Building Standards Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), became effective January 1, 2023. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California.

The key features of the CALGreen Code include the following mandates:

- Compliance with the California Building Energy Efficiency Standards Code (under California Energy Code, CCR Title 24, Part 6);
- 20 percent mandatory reduction in indoor water use, with voluntary goal standards for 30, 35 and 40 percent reductions;
- Separate indoor and outdoor water meters to measure nonresidential buildings' indoor and outdoor water use with a requirement for moisture-sensing irrigation systems for larger landscape projects;
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80 percent for commercial projects;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

In addition to the mandatory measures listed above and to other State-wide mandates, CALGreen Code encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. The City of Clearlake has not adopted any voluntary provisions of the CALGreen Code to date.

The 2025 California Building Code, Green Building Standards Code and related California Energy Code updates, including energy efficiency standards, become effective January 1, 2026.

California Clean Air Act

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act. The CCAA requires that air quality plans be prepared for areas of the State that have not met the CAAQS for ozone, CO, NO_X, and SO_2. Among other requirements of the CCAA, the plans must include a wide range of implementable control measures, which often include transportation control measures and performance standards. To implement the transportation-related provisions of the CCAA, local air pollution control districts have been granted explicit authority to adopt and implement transportation controls. The CARB, California's air quality management agency, regulates and oversees the activities of county air pollution control districts and regional air quality management districts. The CARB regulates local air quality indirectly using State standards and vehicle emission standards, by conducting research activities, and through planning and coordinating activities. In addition, the CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the US EPA.

Commercial Motor Vehicle Idling

On July 22, 2004, the Air Resources Board (ARB) initially adopted an Airborne Toxic Control Measure (ATCM) to limit idling of diesel-fueled commercial motor vehicles and subsequently amended it on October 20, 2005, October 19, 2009, December 12, 2013, and September 9, 2021. This ATCM is set forth in Title 13, CCR, section 2485, and requires, among other things, that drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds, including buses and sleeper berth equipped trucks, not idle the vehicle's primary diesel engine longer than five minutes at any location. The ATCM also requires owners and motor carriers that own or dispatch these vehicles to ensure compliance with the ATCM requirements.

The regulation consists of new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. Under the new engine requirements, 2008-and-newer model year heavy-duty diesel engines need to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling or optionally meet a stringent nitrogen oxides idling emission standard. Emissions producing alternative technologies such as diesel-fueled auxiliary power systems (APS) and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle. [5]

In-Use Off-Road Diesel Vehicle Regulation

The California Air Resources Board (CARB) approved the Off-Road Regulation (Cal. Code Regs., tit. 13, §§ 2449 et seq.) for adoption in 2007, and it became effective in 2008. The Off-Road Regulation was amended twice in 2009, and again in 2010. The 2009 amendments introduced additional credits to incentivize early actions and added clarifying language. The 2010

[5] California Air Resources Board. *Heavy-Duty Diesel Vehicle Idling Information*. https://ww2.arb.ca.gov/capp-resource-center/heavy-duty-diesel-vehicle-idling-information. Accessed August 2025.

amendments made significant changes to the Off-Road Regulation which delayed the initial compliance date for all fleets by four years, provided a path to compliance without any required retrofits, and simplified the Off-Road Regulation. The purpose of the Off-Road Regulation is to reduce diesel PM, NOx, and other criteria air pollutants from in-use off-road heavy-duty vehicles in California.

In November 2022, CARB approved amendments to the Off-Road Regulation that are effective October 1, 2023. These amendments were one of several measures identified for action by CARB as part of the 2022 State Strategy for the State Implementation Plan. These amendments will achieve additional NOx and PM reductions and enhance the enforceability of the Off-Road Regulation.[6]

Low Emission Vehicle Program

The CARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan (SIP). In 2012, the CARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

On September 23, 2020, Governor Gavin Newsom issued Executive Order N-79-20 establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent zero-emission vehicles by 2035, where feasible.[7]

Heavy-Duty Low-Nox Omnibus

In its public hearing of August 27, 2020, CARB staff proposed, and the Board approved for adoption the Omnibus regulation, which established stringent NO_X engine emission standards that are 90 percent below current levels on existing certification cycles and lower NO_X standards on new certification cycles to control emissions over a broader range of vehicle operation, including idling, low load, and highway operation. In addition, the regulation revised the heavy-duty in-use testing program to make it more effective in ensuring compliance with the in-use emission standards over a broader range of vehicle operation and lengthened the useful life and emissions warranty period requirements to reflect the longevity of heavy-duty vehicles. The regulation was

[6] California Air Resources Board. *In-Use Off-Road Diesel-Fueled Fleets Regulation*. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation. Accessed August 2025.

[7] California Air Resources Board. *Low-Emission Vehicle Program*. https://ww2.arb.ca.gov/our-work/programs/low-emission-vehicle-program/about. Accessed August 2025.

approved by the Office of Administrative Law (OAL) on December 22, 2021, with an effective date of December 22, 2021.

In August 2023, CARB staff proposed to amend the Omnibus regulation to provide additional compliance flexibility to engine manufacturers while ensuring the proposed amendments will not reduce the emissions benefits of the program. On December 28, 2023, CARB approved Executive Order R-23-006 adopting the proposed amendments. OAL approved the rulemaking and filed it with the Secretary of State on May 31, 2024, with an effective date of May 31, 2024.[8]

On-Road Heavy-Duty Vehicle Program

The CARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The CARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others. Further, the CARB has also adopted the Advanced Clean Trucks Regulation and the Advanced Clean Fleets Regulation. The Advanced Clean Trucks Regulation is a manufacturers ZEV sales requirement and a one-time reporting requirement for large entities and fleets. Similarly, the Advanced Clean Fleets Regulation will help advance the introduction of zero-emission technologies into California's truck and bus fleets, requiring fleets that are well suited for electrification to transition to zero-emission vehicles (ZEV) through requirements to phase in the use of ZEVs for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year.[9]

Health & Safety Code Section 39614

In 2003, the Legislature passed SB 656, codified as Health & Safety Code section 39614, to reduce public exposure to PM_{10} and $PM_{2.5}$ above the State CAAQS. The legislation requires the CARB, in consultation with local air pollution control and air quality management districts, to adopt a list of the most readily available, feasible, and cost-effective control measures that could be implemented by air districts to reduce PM_{10} and $PM_{2.5}$ emissions. The CARB list is based on California rules and regulations existing as of January 1, 2004, and was adopted by CARB in November 2004.

Categories addressed by SB 656 include measures for reduction of emissions associated with residential wood combustion and outdoor green waste burning, fugitive dust sources such as paved and unpaved roads and construction, combustion sources such as boilers, heaters, and charbroiling, solvents and coatings, and product manufacturing.

[8] California Air Resources Board. *Heavy-Duty Low Nox*. https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox/about. Accessed August 2025.
[9] California Air Resources Board. *On-Road Heavy-Duty Certification Program*. https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox/about. Accessed August 2025.

Some of the measures include, but are not limited to, the following:

- Reduce or eliminate wood-burning devices allowed;
- Prohibit residential open burning;
- Permit and provide performance standards for controlled burns;
- Require water or chemical stabilizers/dust suppressants during grading activities;
- Limit visible dust emissions beyond the project boundary during construction;
- Require paving/curbing of roadway shoulder areas; and
- Require street sweeping.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the Proposed Project on a local level.

Lake County Air Quality Management District

The LCAQMD is a regional agency, created by the State, which regulates stationary sources of air pollution within the LCAB. Such sources include industrial developments such as the Geysers Geothermal Power Generation plant and commercial businesses with air emissions such as mining operations and gasoline stations. The LCAQMD also regulates open burning and is delegated a variety of other programs such as state Air Toxic Control Measures (ATCMs) and federal New Source Performance Standards (NSPSs). The main purpose of the LCAQMD is to enforce local, State, and federal air quality laws, rules, and regulations in order to meet the AAQSs, as well as to protect the public from air toxics through local regulation, State ATCMs, and federal National Emission Standards for Hazardous Air Pollutants (NESHAP)-specific control regulations.

Rules and Regulations

All projects under the jurisdiction of the LCAQMD are required to comply with all applicable LCAQMD rules and regulations, which include, but are not limited to, the following:

- Chapter II, Prohibitions and Standards
    - Article I, Visible Emissions
    - Article II, Particulate Matter Emissions
    - Article IV, Other Emission or Contaminants
        - Part III, Demolition, Renovation, and Removal
        - Part V, Roadways and Surfacing Standards
- Chapter IV, Permits
    - Article I, Authority to Construct
    - Article II, Permit to Operate

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, policies and programs that effect air quality aspects of the project. The following are some related strategies and actions from the CAP:

Strategy 9: Carbon Sequestration Considerations in Planning and Development. Incorporate greenhouse gas emissions reduction and carbon sequestration goals into existing policies, programs, and development review and permitting processes to maximize landscape-scale greenhouse gas reduction benefits while supporting sustainable growth patterns.

Action 9.1: Identify countywide greenhouse gas emissions reduction and sequestration goals, adopt a CEQA significance threshold for greenhouse gas emissions to provide a consistent standard for evaluating development projects, and amend land use planning and permitting processes to ensure land development minimizes greenhouse gas emissions and optimizes natural carbon sequestration processes.

Action 9.2: Evaluate the feasibility of establishing a countywide carbon offset and sequestration program.

City of Clearlake 2040 General Plan Update

The *2040 General Plan Update* goals, objectives, and policies relating to air quality and emissions that are applicable to the Proposed Project are presented below.

Objective CO 3.1	The City shall support efforts to maintain attainment status for all state and federally mandated air quality standards.	
	Policy CO 3.1.1	The City should continue to comply with standards for state and federal air quality.
Objective CO 3.2	Support the County in reducing particulate emissions.	
	Policy CO 3.2.1	The City shall support paving of dirt roads to reduce dust particulate matter.
Objective CO 3.3	Support the Lake County Air Quality District in reducing exposure to harmful organic and reactive gases.	
	Policy CO 3.3.1	The City should promote the use of non-motorized transportation to reduce carbon monoxide and carbon dioxide levels.

4.2.4 Impacts and Mitigation Measures

The standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific and cumulative impacts related to air quality emissions are described below. A discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, the Proposed Project may result in a significant impact related to air quality if the project would result in any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As stated in Appendix G of the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations.

As stated above, the LCAQMD is in attainment or unclassified for all CAAQS and NAAQS. As a result, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan.

In order to provide a quantitative analysis within this EIR, the City of Clearlake has elected to use the thresholds of significance used for CEQA analyses within the nearby San Francisco Bay Area Air Basin (SFBAAB), adopted by the Bay Area Air Quality Management District (BAAQMD), for the Proposed Project's analysis. Selection for this threshold is based on a similar approach used by the Northern Sonoma County Air Pollution Control District, which also has not adopted its own air quality standards.

BAAQMD's thresholds are based on the air quality within the San Francisco Bay Area Air Basin (SFBAAB). Air quality within the SFBAAB is worse than air quality within the LCAQMD. The SFBAAB is nonattainment for several state and federal ambient air quality standards whereas the LCAQMD is in attainment for all state and federal standards. Consequently, using BAAQMD's significance thresholds to determine if mitigation is warranted is an extremely conservative approach.

Implementation of the Proposed Project would result in significant air quality impacts if unmitigated emissions from the Proposed Project construction or operation would exceed the BAAQMD project construction thresholds. BAAQMD thresholds of significance are provided in Table 4.2-4.

Table 4.2-4: BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, 2022 CEQA Air Quality Guidelines.

In addition to the thresholds of significance presented above for criteria air pollutants of particular concern for the Bay Area, BAAQMD has developed thresholds for localized CO emissions and TACs. Pursuant to CEQA Guidelines section 15064.4(b)(2), the lead agency is charged with determining a threshold of significance that is applicable to the project. As discussed above, for the analysis within this EIR, the City has elected to use the BAAQMD's thresholds of significance.

Localized CO Emissions

The CO Protocol was used to screen the potential for impacts connected with CO Hot Spots. In 1997, the EPA approved the CO Protocol for use as an alternative hot spot analysis method in California. The CO Protocol is the standard method used for project-level CO analysis by Caltrans. The CO Protocol outlines a screening process for determining which intersections could potentially have significant impacts. Projects that would lead to worsening the level of service (LOS) of a signalized intersection to E or F represent a potential for a CO violation and would require further analysis; projects that do not worsen signalized intersections to LOS E or F would require no more analysis. Projects that significantly increase the delay (delay of 10 seconds or more) at an intersection operating at LOS E or LOS F in the existing condition would represent a potential for a CO violation and would require further analysis.

Because LCAQMD has not developed conservative screening methods for CO, the potential for CO hotspots was further evaluated using a quantitative screening method recommended by the BAAQMD. If a project would cause localized CO emissions to exceed the 1-hour and 8-hour CAAQS of 20.0 parts per million (ppm) and 9.0 ppm, respectively, BAAQMD would consider the project to result in a significant impact to air quality.

To provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and

- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

TAC Emissions

Construction

CARB has identified diesel particulate matter (DPM) as a toxic air contaminant (TAC). DPM is generated during construction by on- and off-road construction vehicles. DPM is also generated in substantial quantities by high-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic. Health risks from TACs are a function of the concentration of emissions and the duration of exposure. The primary source of TACs during construction is DPM from construction equipment exhaust. The evaluation of TACs from construction is conducted qualitatively due to the short-term nature of construction and the distance of construction from the closest sensitive receptors. CARB and the US EPA has identified friable asbestos as TACs.

Friable asbestos occurs when naturally serpentine soil or rocks are disturbed during grading and site preparation activities. Asbestos TACs have no quantifiable thresholds other than that their presence establishes a significant impact during construction that must be mitigated with an LCAQMD Serpentine Dust Control Plan.

Operation

Although the project would not generate substantial quantities of TACs during operation, there is the potential that proposed sensitive receptors on and near the project site could be exposed to TACs from on-site stationary combustion sources, as well as DPM from on-road diesel vehicles. A screening level assessment was conducted to assess the health risks to future residents and employees using CARB's Air Quality and Land Use Handbook: A Community Health Perspective.[10]

Key recommendations in the Handbook include taking steps to avoid siting new, sensitive land uses in the following locations:

[10] CARB. *Air Quality and Land Use Handbook: A Community Health Perspective.* April 2005. https://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf. Accessed August 21, 2025.

- 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles / day
- 1,000 feet of a major service and maintenance rail yard
- Within 300 feet of any dry cleaning operation using perchloroethylene (for operations with two or more machines, within 500 feet). California regulations prohibit the installation of new perchloroethylene dry cleaning equipment, and thus this is only relevant for existing dry cleaners using old equipment
- 300 feet from the fence line of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater)
- 50 feet from typical gas dispensing facilities

Method of Analysis

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan (maximum of 540,000 square feet of commercial building area and three dwellings). Air quality analysis of the Proposed Project therefore necessitates an identification of those significant effects that "are peculiar to the [. . .] project" that were not addressed as significant effects in the plan's EIR, per Public Resources Code section 21083.3.

As described above, based on consultation with the LCAQMD, the guidance and recommendations provided by BAAQMD in their *California Environmental Quality Act Air Quality Guidelines* were used to analyze the Proposed Project's air quality impacts, including screening criteria and pollutant thresholds of significance. Details regarding the methodology and assumptions used for the Proposed Project's air quality impact analysis are provided below.

Construction-Related Emissions

The Proposed Project's short-term construction emissions have been estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.29 software, a CARB-recommended statewide air quality model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data was available, such data was input into the model.

For purposes of the air quality modeling, construction is anticipated to commence in 2026 and to be completed by 2032. This is a worst-case scenario to provide conservative emissions estimates as the CalEEMod model assumes emissions are reduced over time with improving technologies and stricter regulations. However, the project could occur over a longer extended time period. The following assumptions were made for the project construction modeling:

- Approximately 11,280 square feet of existing buildings would be demolished;
- Approximately 48,550 cubic yards of soil would be imported during the grading and linear excavation phases;
- Approximately 22,098 cubic yards of material would be exported during the site preparation phase;
- Approximately 30.7 acres would be paved as part of the construction process.

The results of emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All CalEEMod modeling results are included in Appendix D to this EIR.

Toxic Air Contaminants and Hazardous Air Pollutants

CARB has identified DPM as a TAC. DPM is generated during construction by on- and off-road construction vehicles. DPM is also generated in substantial quantities by high-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic. Health risks from TACs are a function of the concentration of emissions and the duration of exposure. The primary source of TACs during construction is DPM from construction equipment exhaust. The evaluation of TACs from construction is conducted qualitatively due to the short-term nature of construction and the distance of construction from the closest sensitive receptors.

CARB and the USEPA has identified friable asbestos as TACs. Friable asbestos occurs when naturally serpentine soil or rocks are disturbed during grading and site preparation activities. Asbestos TACs have no quantifiable thresholds; however, there are no serpentine soils identified in the project area per the Lake County interactive GIS site or the California Department of Conservation.[11 & 12] The closest area of serpentine soils is approximately 0.5 mile southwest of the project site.

[11] California Department of Conservation. A General Location Guide for Ultramafic Rocks in California- Areas More Likely to Contain Naturally Occurring Asbestos. https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf. Accessed August 7, 2025.

[12] Lake County. Lake County Parcel Viewer. Lake County Parcel GIS Web Map Viewer. Accessed August 21, 2025.

Operational Emissions

Criteria Pollutant Emissions

The Proposed Project's operational emissions were estimated using CalEEMod as described above, using a conservative estimate of full operational status by 2032. The Proposed Project would generate operational emissions of the criteria pollutants, including ozone precursors (reactive organic gas [ROG] and NOx), CO, PM10, PM2.5, and SO_x. The project-specific trip generation rates provided by W-Trans were also applied to the project modeling. CalEEMod was used to estimate area, energy, and mobile emissions associated with operation of the Proposed Project. Input values for the model included CalEEMod defaults and site-specific data. Area, energy, and mobile emissions were modeled based on proposed land use types and sizes as described in Chapter 3.

Carbon Monoxide Hot Spot Analysis Methodology

The CO Protocol was used to screen the potential for impacts connected with CO Hot Spots. In 1997, the EPA approved the CO Protocol for use as an alternative hot spot analysis method in California. The CO Protocol is the standard method used for project-level CO analysis by Caltrans. The CO Protocol outlines a screening process for determining which intersections could potentially have significant impacts. Projects that would lead to worsening the LOS of a signalized intersection to E or F represent a potential for a CO violation and would require further analysis; projects that do not worsen signalized intersections to LOS E or F would require no more analysis. Projects that significantly increase the delay (delay of 10 seconds or more) at an intersection operating at LOS E or LOS F in the existing condition would represent a potential for a CO violation and would require further analysis. Because LCAQMD has not developed conservative screening methods for CO, the potential for CO hot spots was further evaluated using a quantitative screening method recommended by the Bay Area Air Quality Management District (BAAQMD), as described in Impact 4.2-3 below.

Toxic Air Contaminants and Hazardous Air Pollutants

CARB's Air Quality and Land Use Handbook: A Community Health Perspective was used to complete an assessment was conducted to assess the health risks to existing and future residents and employees on and near the project site.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Proposed Project in comparison with the standards of significance identified above.

4.2-1 Conflict with or obstruct implementation of the applicable air quality plan (*Less than Significant*)

> The LCAB is currently in attainment for all state and federal air quality standards. Consequently, there are no air quality plans for the LCAB.

General Plan Evaluation

The General Plan EIR found that implementation of the General Plan would not conflict with or obstruct implementation of any applicable air quality plan because there is no applicable air quality plan in Clearlake.

Conclusion

This impact is ***less than significant*** due to the lack of applicable air quality plans for the project region.

Mitigation Measure(s)

None required.

4.2-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (*Significant and Unavoidable*)

Construction

Construction-related activities associated with the Proposed Project would generate emissions of criteria air pollutants from site preparation (e.g., excavation, grading, and clearing), off-road equipment, material transport, rock crushing activities, generators, worker vehicles, vehicle travel on unpaved roads, paving, and application of architectural coatings. Construction-related emissions would be intermittent and temporary in nature. Effects on air quality during construction were evaluated by estimating the amount of criteria air pollutants that would be emitted over the duration of the construction period for each phase of construction.

A variety of heavy equipment, including trucks, scrapers, excavators, and graders, would be used to complete each phase. PM_{10} and $PM_{2.5}$ and ozone precursors are the primary pollutants of concern resulting from operation of construction equipment, earth-moving activities, and soil hauling. ROGs, NO_X, SO_2, CO, $PM_{2.5}$, PM_{10}, and DPM emissions would primarily be produced by diesel-fueled equipment use and earth-moving activities. Worker commute trips and other construction-related activities (application of architectural coatings, such as paint) also contribute to project-related construction emissions. The generation of dust (fugitive PM_{10} and $PM_{2.5}$) during construction activities could adversely affect sensitive receptors and construction workers by exacerbating existing respiratory problems such as asthma. Dust can also adversely affect children and the elderly who are more susceptible to respiratory illnesses.

The Proposed Project would be required to comply with all LCAQMD rules and regulations for construction, including but not limited to the following rules specifically applicable to construction related air quality impacts:

- Chapter II, Article I related to visible emissions
- Chapter II, Article II related to particulate matter emissions
- Chapter II, Article IV related to other emissions or contaminants
- Chapter II, Article IV, Section 467 related to asbestos emissions control measures
- Chapter IV, Article I, related to construction permits

Table 4.2-5 shows project-related emissions for project construction. Emission levels after mitigation and compliance with LCAQMD rules are listed first, and emissions before mitigation and compliance with LCAQMD rules are shown in parentheses.

Table 4.2-5: Average Project Construction-Related Emissions

Pollutant	Proposed Project Mitigated (Unmitigated) Emissions (average lbs/day)*	Threshold of Significance (average lbs/day)	Exceeds Threshold Without Mitigation?
ROG	14.8 (15.96)	54	No
NO_X	13.5 **(63.89)**	54	***Yes***
PM_{10} (exhaust)	0.30 (2.43)	82	No
PM_{10} (fugitive)	1,417 (1,417)	N/A	N/A
$PM_{2.5}$ (exhaust)	0.30 (2.24)	54	No
$PM_{2.5}$ (fugitive)	142 (142)	N/A	N/A

Source: CalEEMod, July 2025 (see Appendix D).
*Note: due to the lack of an option to mitigate with Tier 4 Final certified diesel construction equipment in the CalEEMod model inputs, two CalEEMod files are included in Appendix D and one with Tier 4 Final certified engines assumed (which represents the mitigated numbers above) and one without (which represents the unmitigated numbers above).

Construction-related air quality emissions have been compared with BAAQMD significance thresholds to determine if mitigation measures are warranted. As shown in Table 4.2-5, unmitigated emissions of NO_X would exceed the BAAQMD CEQA threshold of significance. Therefore, although the LCAB is in attainment for all applicable federal and state ambient air quality standard for criteria air pollutants, the Proposed Project would generate construction-related emissions. With implementation of Mitigation Measure 4.2-1, NO_X emissions would be reduced to below the BAAQMD thresholds.

As shown in Table 4.2-5, the Proposed Project would result in substantial amounts of fugitive dust (both PM_{10} and $PM_{2.5}$). While there are no BAAQMD CEQA thresholds of significance for fugitive dust, BAAQMD recommends implementing all feasible fugitive dust management practices, especially when construction projects are located near sensitive receptors or within sensitive communities.[13]

Given the projected levels of fugitive dust and the proximity of the project to existing and future residential uses, existing schools, and medical uses, Mitigation Measure 4.2-1 requires that dust and construction control measures are implemented that would minimize emissions from construction activities. With the implementation of Mitigation Measure 4.2-2, fugitive dust emissions would be minimized to the extent practicable.

[13] Bay Area Air Quality Management District. *2022 CEQA Guidelines.* Bay Area Air Quality Management District 2022 California Environmental Quality Act Guidelines. Accessed August 21, 2025.

Operation

Stationary Sources: The Proposed Project may include commercial stationary sources of pollutants that would be required to obtain permits to operate under LCAQMD Chapter IV, Article II Permit to Operate. These sources could include, but not be limited to, diesel-engine generators for emergency power generation, central heating boilers, kitchen equipment at restaurants, and dry-cleaning equipment, depending on the specific types of businesses and uses proposed. The permit process would ensure that these sources would be equipped with the required emission controls and individually would comply with permitting requirements.

Area and Mobile Emissions: Buildout of the Proposed Project would result in the generation of mobile emissions from resident, patron, employee, and delivery vehicles, as well as area and energy criteria air pollutant emissions. Operational emissions including area, energy, mobile, stationary, waste and water related emissions were estimated using CalEEMod. Operational emissions of the Proposed Project are shown in Table 4.2-6. Emission levels after mitigation are listed first, and emissions before mitigation are shown in parentheses. Refer to Appendix D for CalEEMod input and output files. The estimates represent annual operational emissions.

Table 4.2-6: Average Project Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold
	lbs/day	tons/yr	lbs/day	tons/yr	Yes/No/'N/A'
ROG	**136 (148.0)**	**24.8 (26.9)**	54	10	***Yes***
NO_X	**60.4 (65.0)**	**11.0 (11.9)**	54	10	***Yes***
PM_{10} (exhaust)	13.6 (13.7)	2.48 (2.50)	82	15	No
PM_{10} (fugitive)	45.2 (48.2)	8.24 (8.80)	None	None	N/A
$PM_{2.5}$ (exhaust)	4.12 (4.22)	0.75 (0.77)	54	10	No
$PM_{2.5}$ (fugitive)	11.5 (12.3)	2.10 (2.24)	None	None	N/A

Source: CalEEMod, July 2025. (see Appendix D).

Operational air quality emissions have been compared with BAAQMD significance thresholds to determine if mitigation measures are warranted. Table 4.2.-7 presents the unmitigated and mitigated emissions associated with operation that would exceed the BAAQMD CEQA thresholds of significance for ROG and NO_X.

Mitigation Measure 4.2-3 provides a range of actions that would reduce operational emissions by requiring a commitment to pedestrian improvements, bike parking, traffic calming measures, real-time transit information, all-electric development, energy-efficient boilers, water-efficient landscaping, wildfire resilience and management, and low-VOC paints, among other items. However, operational ROG and NO_X impacts would not be reduced below BAAQMD thresholds.

General Plan Evaluation

The General Plan EIR's "Technical Memorandum for the Air Quality Impact Analysis Associated with 2016 General Plan Update" evaluated the various growth scenarios of the General Plan. The memo indicates that the CalEEMod analysis assumed an average of 77 new housing units per year and 28,456 square feet of commercial development per year over a 25-year timeframe. However, the CalEEMod calculations attached to the report do not include any commercial development or other non-residential uses that are included in the Proposed Project such as hospital uses and medical offices. A site-specific air quality evaluation is therefore needed to evaluate the specific site conditions and uses of the Proposed Project which are not aligned with the General Plan EIR assumptions for the site with regard both to use and construction and operational timeframe. The conclusions of the General Plan EIR are not applicable for this resource area.

Conclusion

As stated above, the LCAB is in attainment for all applicable federal and state ambient air quality standard for CAPs. Therefore, the Proposed Project would not generate emissions of any criteria air pollutant for which the project region is nonattainment. Construction-related increases in criteria pollutants would be *less than significant with mitigation*. However, given that the project would exceed BAAQMD thresholds for ROG and NO_X during project operations even with implementation of all feasible mitigation, this impact remains ***significant and unavoidable***.

Mitigation Measure(s)

Mitigation Measure 4.2-1. Reduce Construction-Related NO_X Emissions. The following notes shall be included on all grading and/or construction plans and shall be implemented accordingly during grading and/or construction operations. Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading and construction plans by the City of Clearlake Community Development Department.

- All off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site.

- Construction contractors shall utilize Tier 4 Final certified engines or better and Level 3 diesel filters during all phases of development. Compliance must be demonstrated with submittal the equipment inventory.

- Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

- The construction contractor must notify LCAQMD prior to beginning construction activities and prior to engine use. Mobile diesel equipment used for construction

and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet reciprocating internal combustion engines (RICE) NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for compression ignition (CI, i.e., diesel) engines and must meet local regulations.

Mitigation Measure 4.2-2: Reduce Construction-Related Fugitive Dust Emissions. The following measures shall be implemented for all grading and/or construction on the project site to reduce fugitive dust emissions and shall be implemented accordingly during grading and/or construction operations. Conformance with these requirements shall be included as notes on all construction plans and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department:

- Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.

- Driveways, access roads and parking areas shall be surfaced in a manner that minimizes dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvements shall adhere to all applicable federal, State and local agency requirements.

- Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.

- During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.

- Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust and/or landscaped or hydro-seeded. All BMPs shall be routinely inspected and maintained for the life of the project.

- Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

- If construction or site activities are conducted within Serpentine soils, a Serpentine Dust Control Plan would be required. Any parcel with serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.

- Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

- Significant dust may be generated from increased vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilize water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limit

- During construction, emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area, shall be controlled so that dust does not remain visible in the atmosphere beyond the boundary line of the emission source.

- When wind speeds result in dust emissions crossing property lines, and despite the application of dust control measures, grading and earthmoving operations shall be suspended and inactive disturbed surface areas shall be stabilized.

- All vehicle speeds on unpaved roads shall be limited to 25 mph.

- Site development and vegetation disposal shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for groundcover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.

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Mitigation Measure 4.2-3. Reduce Operations-Related Emissions. Prior to the issuance of improvement and building permits, as relevant (i.e., infrastructure, residential, or commercial), documentation shall be provided to the City of Clearlake Community Development Department that the following measures have been achieved through project design:

Project-Wide Measures

- Use energy-efficient lighting that will reduce indirect criteria pollutants and GHG emissions. Using energy-efficient lighting will reduce energy usage and, thus, reduce the indirect GHG emissions from the project. Energy-efficient lighting includes adaptive lighting systems or systems that achieve energy savings beyond those required by Title 24 lighting requirements to the maximum extent feasible.
- Use low-flow appliances and fixtures.
- Use drought-tolerant and native vegetation.
- Use low VOC paint for parking areas and the interiors and exteriors of the both residential and non-residential buildings.
- Provide sufficient bicycle parking per City standards.
- Provide traffic calming measures as shown on the approved site plan.
- Provide pedestrian network improvements, including sidewalks on all street frontages, as shown on the approved site plan.
- Provide wildfire resilience and management site-wide through compliance with Public Resources Code 4291 and other local fire protection standards.
- Require project contributions to transportation infrastructure improvements commensurate with project impacts.

Residential Measures

- Provide net zero renewable electrical energy through installation of solar photovoltaic systems consistent with the 2022 Building Energy Efficiency Standards. This may be achieved through the use of rooftop solar or proposed on-site photovoltaic systems, or the equivalent renewable energy source.
- Use water efficient landscapes and native/drought-tolerant vegetation.
- Use energy-efficient appliances in the residences where available. These include appliances that meet USEPA's Energy Star Criteria.
- Use energy efficient residential boilers where applicable

- Install electric ranges in place of propane-powered ranges
- Provide electric heaters only. Wood-burning devices and propane fireplaces shall be prohibited in residential development.
- Install electric water heaters instead of propane water heaters.

Commercial Measures

- Install on-site charging units for electric vehicles consistent with parking requirements in California Green Building Standards Code Section 5.106.5.2.
- Install energy-efficient commercial packaged boilers.
- Install electric water heating instead of gas water heating for some or all of the project's hot water needs, to the extent such technology is readily available and commercially practicable.

4.2-3 Expose sensitive receptors to substantial pollutant concentrations (*Less than Significant)*

The major pollutant concentrations of concern are localized CO and TAC emissions, which are addressed in further detail below.

Localized CO Emissions

Operation of the Proposed Project has the potential to cause increased concentrations of CO from mobile sources. CO is a localized pollutant of concern with CO concentration levels highest near intersections with congested slow or idling traffic where the LOS is E or F. The Proposed Project would increase traffic volumes at intersections within the project site vicinity. An analysis of intersections in the vicinity of the project site is provided in Section 4.13. As shown in the Traffic Impact Study, traffic would worsen the LOS from acceptable levels to LOS F at two intersections. As described in Section 4.13, the following intersections would exceed acceptable LOS standards due to the Proposed Project:

- SR 53/18th Avenue at the 18th Avenue approaches
- Old Highway 53 / S. Market Street at the westbound (S. Market Street approach) (new intersection

The Traffic Impact Study proposes infrastructure improvement measures for these intersections that would reduce delays and improve operational conditions to acceptable levels.

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the Proposed Project would increase traffic

volumes on streets near the project site; therefore, the project would be expected to increase local CO concentrations. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. The statewide CO Protocol document identifies signalized intersections operating at LOS E or F, or projects that would result in the worsening of signalized intersections to LOS E or F, as having the potential to result in localized CO concentrations exceeding the State or federal AAQS, as a result of large numbers of cars idling at stop lights.[14]

In accordance with the State CO Protocol, the BAAQMD has established preliminary screening criteria for determining whether the effect that a project would have on any given intersection would cause a potential impact related to localized CO. If the following criteria are met by a project at all affected intersections, the project would be expected to result in a less-than-significant impact related to localized CO:

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

An established congestion management program does not exist for the project area. As such, the Proposed Project would not be considered to be inconsistent with any such a plan. Based on the Traffic Impact Study prepared for the Proposed Project by W-Trans (see Chapter 4.14), the maximum traffic volume anticipated at all affected intersections would be 1,687 vehicles per hour. Accordingly, the Proposed Project would not increase traffic volumes at any affected intersections to more than 44,000 vehicles per hour or to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Therefore, the Proposed Project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards, and this impact is less than significant.

TAC Emissions

Another category of environmental concern is TACs. Common stationary source types of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to LCAQMD stationary source permit requirements. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains. In

[14] University of California, Davis. *Transportation Project-Level Carbon Monoxide Protocol*. December 1997.

general, sources of TACs of local concern are any sources located within 1,000 feet of a sensitive receptor or project site.

The Proposed Project has the potential to expose sensitive receptors to concentrations of TACs in two ways: 1) by exposing off-site sensitive receptors to construction activities, which result in the emission of particulate matter from diesel-fueled engines, and 2) by locating residences in proximity to sources of TACs. This analysis evaluates the location of sensitive receptors, which consist of schools and residences, in relation to potential sources of TACs: construction equipment, industrial sources, and high-capacity roadways. Proposed sensitive land uses consist of residences and hospital uses. Existing off-site sensitive receptors consist of residences, schools, a hospital, and community churches as discussed above under the section 4.2.2 "Sensitive Receptors."

Construction

Project construction would result in short-term emissions of diesel exhaust, of which a major constituent is DPM, a known TAC. Off-road heavy-duty diesel equipment would emit DPM during site preparation (e.g., excavation and grading); paving; installation of utilities, materials transport and handling; building construction; and other miscellaneous activities. LCAQMD has not adopted a methodology for analyzing such impacts and has not recommended that Health Risk Assessments be completed for construction-related emissions of TACs. Due to the intermittent nature of construction activities, the relatively short-term construction period, and the distance to sensitive receptors, the project would not result in long-term exposure of sensitive receptors to significant health risks associated with construction-related emissions of TACs. Therefore, exposure of sensitive receptors to TACs from construction activities is considered a less-than-significant impact.

Operation

The Proposed Project includes an auto or truck fueling station at the southern end of the project site, which is a potential source of TACs. The Proposed Project also includes the development of residential and medical/hospital uses, which are considered sensitive receptors. Therefore, an assessment of compatibility with the surrounding land uses is provided. There are no nearby industrial areas in the vicinity of the project site that could affect new sensitive receptors within the project site. The main source of TACs would be on-road mobile sources on nearby surface streets.

CARB has developed recommendations against siting new sensitive land uses within certain distances of TAC-emitting sources. Key recommendations in CARB's Air Quality and Land Use Handbook include taking steps to avoid siting new, sensitive land uses in the following locations:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day
- Within 1,000 feet of a major service or maintenance rail yard

- Within 300 feet of any dry-cleaning operation. For operations with two or more machines, provide 500 feet. California regulations prohibit the installation of new perchloroethylene dry cleaning equipment, and thus this is only relevant for existing dry cleaners using old equipment

- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater)

- Within 50 feet of typical gas dispensing facilities

The project site is immediately adjacent to SR 53 which carries 18,300 vehicles per day in the vicinity of the project site[15]. The Proposed Project would contribute 17,866 average daily trips (ADT) to area roadways and 12,864 ADT to SR 53 in particular, as 72 percent of trips are distributed to SR 53 per the Traffic Impact Study prepared for the Project (see Chapter 4.13). Total project trips on SR 53 can be expected to be in the range of 31,164 ADT, which is below the threshold of 100,000 trips per day on an urban road.

Old Highway 53 abuts the western boundary of the project site and has a volume of approximately 6,000 ADT on weekdays and 5,000 ADT on weekends per the Traffic Impact Study. The Proposed Project would contribute an additional 1,080 ADT on weekdays to Old Highway 53 (with 18 percent of Project trips attributed to Old Highway 53), for a total ADT of 7,080 ADT. This ADT is below the 50,000 ADT threshold for rural roads.

The Proposed Project includes an auto/truck fueling station at the southern end of the project site. This fueling station would be considered a typical gas dispensing facility as only 7 pumps are proposed; therefore, the threshold for siting new sensitive uses (and for construction of the fueling station near existing sensitive uses) is 50 feet distant. The proposed fueling station in PD Zone 3 would be over 1,000 feet from the mixed-use multi-family units in PD Zone 2 and approximately 150 feet from the nearest residence to the southwest, as measured from the property line. Impacts related to TAC emission would therefore be less than significant.

General Plan Evaluation

The General Plan EIR includes Mitigation AIR-1a for this impact area, which states, "The City shall avoid or prohibit the siting of new sensitive land uses within 500 feet of a freeway, within 300 feet of a dry cleaning operation, and 300 feet of a large gas station," and Mitigation AIR-1b, which states, "The City shall avoid or prohibit the siting of new substantial emission sources within CARM recommended screening distances of existing sensitive receptors." The Proposed Project complies with these General Plan mitigation measures, and any future site-specific development within the project site would be required to comply with these measures during the development review and approval process.

[15] Caltrans. *Traffic Census Program: 2023 AADT*. https://dot.ca.gov/programs/traffic-operations/census. Accessed August 21, 2025.

Conclusion

Impacts related to exposure of sensitive receptors to substantial pollutant concentrations such as CO and TAC emissions would be ***less than significant***.

Mitigation Measure(s)

None required.

4.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (*Less than Significant*)

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants; sanitary landfills; composting/green waste facilities; recycling facilities; petroleum refineries; chemical manufacturing plants; painting/coating operations; rendering plants; and food packaging plants. The project site is not located in the vicinity of any such existing uses, and the Proposed Project would not introduce any such land uses.

However, the Proposed Project's activities could cause diesel fumes, such as during the temporary construction period and/or associated with the heavy-duty truck traffic during operation, which could be considered objectionable. Diesel fumes from construction equipment are often found to be objectionable. Construction is temporary and construction equipment would operate intermittently throughout the course of the day and be restricted to daytime hours per the City's Noise Ordinance and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable LCAQMD rules and regulations, particularly associated with permitting air pollutant sources. The aforementioned regulations, as well compliance with Mitigation Measure 4.2-2, which requires that "site development and vegetation disposal shall not create nuisance odors or dust" would help to minimize air pollutant emissions as well as any associated odors.

Residential uses to the northwest, west, and south, and Clearlake Community School to the west are the closest sensitive receptors to the site as shown in Figure 4.2-1. The predominant prevailing wind direction during summer (construction season) is from the northwest, which would push any odors away from the closest sensitive receptors at the

northwest and west. The wind would help to direct any potential objectionable odors emanating from the project site to the southeast during construction and away from the nearest sensitive receptors. Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the number and duration that sensitive individuals are in the vicinity, and the prevailing wind direction, construction of the Proposed Project would not be expected to create objectionable odors affecting a substantial number of people.

Although the Project could involve heavy-duty diesel truck traffic at portions of the site for deliveries or fuel sales, the deliveries would not occur at one particular time. As with construction equipment odors, any odors associated with the delivery trucks would likely be of short duration and would occur intermittently throughout the day. Again, because the nearest sensitive receptors are located northwest and west and the predominant prevailing wind direction in the area is from the northwest, the wind would help to direct any potential objectionable odors emanating from the project site away from the nearby sensitive receptors. Therefore, the truck traffic associated with the Proposed Project would not be expected to create objectionable odors affecting a substantial number of people.

BAAQMD has established odor screening distances for the location of sensitive receptors near potential odor sources, as shown in Table 5-4 of the 2022 BAAQMD CEQA Guidelines. These screening distances are not intended to be hard thresholds but are "additional information to consider along with the odor parameters and complaint history." None of the use types included in Table 5-4 are included the Proposed Project, nor are potential sources of these odors within the specified distances of the CARB-recommended buffer zones, are shown in Map 4.3-3 of the General Plan EIR.

General Plan Evaluation

The General Plan EIR includes Map 4.3-3 of potential odor sources in Clearlake. None of the identified odor locations are located within proximity of the project site. The General Plan EIR found that future siting of new land uses could result in conflicts between existing or new sources of odor and existing or new sensitive receptors. Mitigation AIR-2 from the General Plan EIR states, "During the development review process, assess the siting of new sensitive land uses within the screening distances from odor emitters, as specified by the CARB, in order to determine exposure to objectionable odors." Mitigation AIR-2b from the General Plan EIR states, "Avoid or prohibit the siting of new odor sources within the screening distances of existing sensitive receptors, as specified by CARB." The Proposed Project and all future site-specific development would be required to comply with all General Plan mitigation measures and policies.

Conclusion

For the aforementioned reasons, construction and operation of the Proposed Project would not create objectionable odors that would affect a substantial number of people, and a ***less-than-significant*** impact related to objectionable odors would result.

Mitigation Measure(s)

None required.

Cumulative Impacts & Mitigation Measures

4.2-5 In combination with other cumulative development, cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation, or expose the public to substantial pollutant emissions or odors (*Cumulatively Considerable*)

Under build-out conditions in Lake County, the LCAB would continue to experience increases in criteria pollutants. Lake County has State and federal designations of Attainment or Unclassified for all criteria pollutants. The City of Clearlake, like other cities and communities in the region, is experiencing urban growth. Some developments have already been approved or planned in the surrounding areas. Cumulatively, these projects would help to ameliorate increased emissions and reduce air quality impacts through compact community design. Other proposed and pending projects in the region under the cumulative context would include build-out of the City's General Plan, as well as development of the most recent planned land uses within the vicinity of the project area. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail. With implementation of Mitigation Measures 4.2-1 through 4.2-3 included in this chapter, air quality impacts from the Proposed Project would be reduced. However, the Proposed Project's contribution to a net increase in the criteria pollutants of ROG and NO_X during project operations, as described in Impact Discussion 4.2-2, would be significant and unavoidable even with implementation of the project-specific mitigation measures included in this EIR.

General Plan Evaluation

The General Plan EIR's "Technical Memorandum for the Air Quality Impact Analysis Associated with 2016 General Plan Update" evaluated the various growth scenarios of the General Plan indicates that it assumed an average of 77 new housing units per year and 28,456 square feet of commercial development per year over a 25-year timeframe. However, the CalEEMod calculations attached to the report do not include any commercial development or other non-residential uses that are included in the Proposed Project such as hospital uses and medical offices. The General Plan EIR cumulative analysis is therefore inadequate for the purposes of this EIR in determining cumulative air quality impacts of the Proposed Project in combination with other projects planned for the region, and the conclusions of the General Plan EIR are not applicable to this resource area.

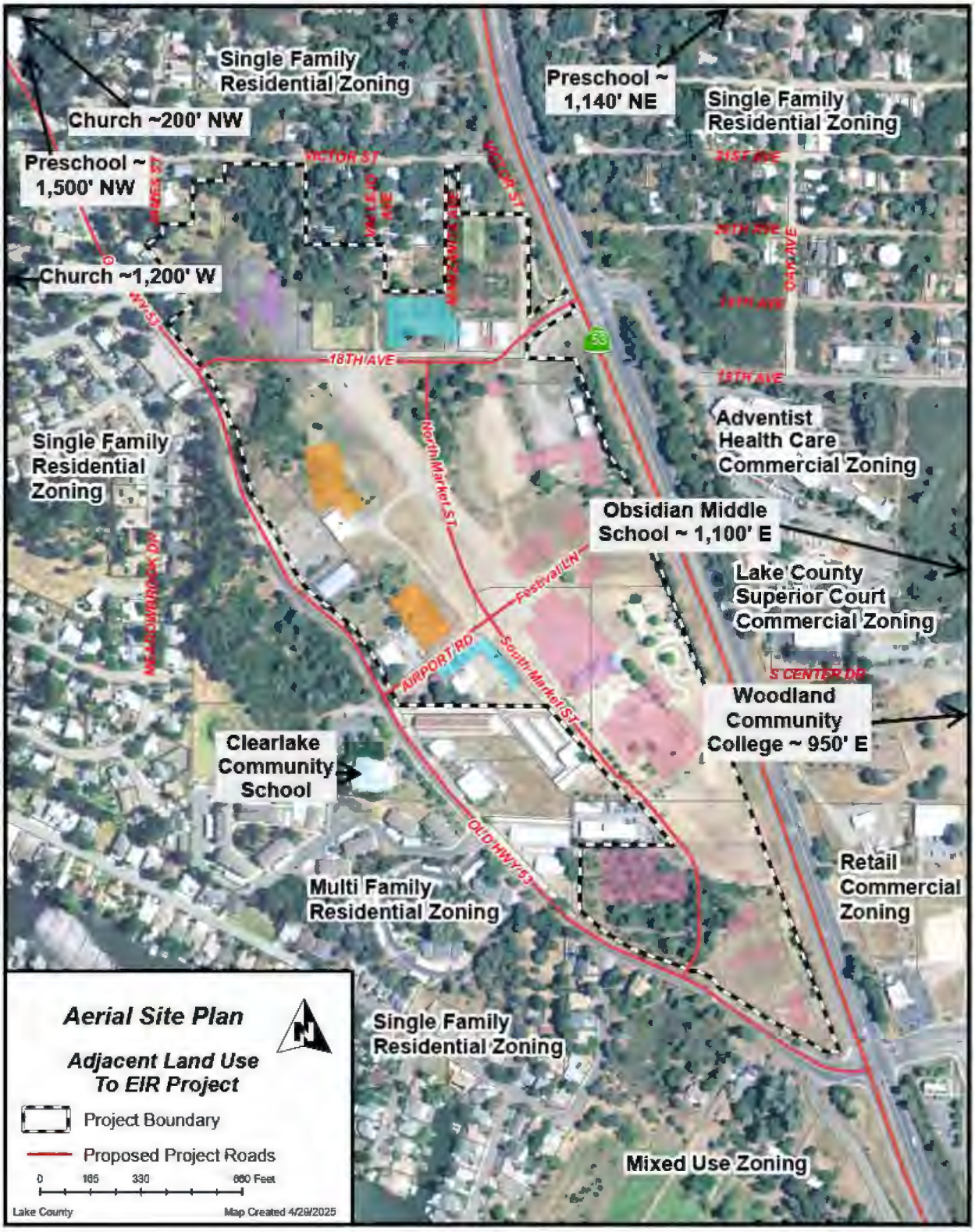
Conclusion

In combination with other projects in the LCAB, the project's contribution to degradation of air quality is considered ***cumulatively significant and unavoidable*** even with implementation of Mitigation Measures 4.2-1 through 4.2-3.

Mitigation Measure(s)

Implement Mitigation Measures 4.2-1 through 4.2-3.

Figure 4.2-1: Air Pollutant Sensitive Receptor Locations



4.3 BIOLOGICAL RESOURCES

4.3.1 Introduction

This chapter describes the regulatory setting, regional biological resources, and impacts that are likely to result from Project implementation. The analysis contained in this Chapter is at a plan level, and covers impacts associated with the conversion of the entire site to an urban use. This Chapter is based in part on the following: Clearlake 2040 General Plan (2017), Environmental Impact Report for the Clearlake 2040 General Plan (2017), City of Clearlake Municipal Code, and site-specific surveys and analysis (*Biological Resources Assessment*[1] and *Tree Inventory and Assessment*[2] prepared by Greg Matuzak Environmental Consulting LLC, and *Biological Evaluation*[3] and *Arborist Tree Inventory and Assessment*[4] prepared by Live Oak Associates (see Appendix E for documents underlying the Biological Resources chapter). The Live Oak Associates reports were prepared for the hotel project within the project site (July 2022), and those evaluations have been updated and incorporated into Greg Matuzak's assessments. Greg Matuzak is a California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) Qualified Biologist, as well as an International Society of Arboriculture (ISA) certified Arborist (Certification #WE-8962A).

No public comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Full comments received are included in Appendix B.

4.3.2 Existing Environmental Setting

The 54-acre project site was previously developed with the Pearce Airport. After its closure in 1994, much of the site was purchased by the Clearlake Redevelopment Agency in 1995. Since then, it has largely been used as a corporation yard by the City of Clearlake Public Works Department. The City of Clearlake's animal control facility is also located within the project site.

The project area has relatively flat to gently rolling terrain situated at an elevational range of approximately 1,350 to 1,415 feet above mean sea level (MSL) in the Inner North Coast Ranges District of the California floristic province. The Project site slopes generally toward the west at varying slopes ranging up to about 2:1. The average winter low temperature in the vicinity of the Study Area is 44.2 degrees Fahrenheit (˚F), and the average summer high temperature is 70.9˚F.

[1] Greg Matuzak Environmental Consulting LLC. *Clearlake Airport Redevelopment Project Biological Resources Assessment.* May 2025.
[2] Greg Matuzak Environmental Consulting LLC. *Clearlake Airport Redevelopment Project Tree Inventory and Assessment*. June 2025.
[3] Live Oak Associates, Inc. *Airport Property Commercial Center Hotel Project Biological Evaluation*. July 21, 2022.
[4] Live Oak Associates, Inc. *Arborist Tree Inventory and Assessment for Proposed Airport Proposed Commercial Center Hotel Project*. July 18, 2022.

Average annual precipitation is approximately 31.42 inches, which falls as rain (National Oceanic and Atmospheric Administration, 2024).
The City of Clearlake, California, is located within the Clear Lake Watershed, which is part of the larger Upper Cache Creek United States Geological Survey (USGS) hydrologic unit. The Clear Lake Watershed is contained within this larger area. Clear Lake itself drains to the east through Cache Creek, which is the only outlet for the lake, and Cache Creek flows into the Sacramento River.

Habitats

Given the previous uses of the site, site soils are largely disturbed, and vegetation consists largely of ruderal species. Native habitats do not exist on the project site except for unconnected pockets of oak trees in the northern, southern, and eastern areas. There is no Designated Critical Habitat (DCH) mapped by the USFWS within the project area or adjacent to it. The California Natural Diversity Database (CNDDB) does include four aquatic and terrestrial communities mapped within the Clearlake Highlands USGS Quad; however, none of these sensitive habitats mapped within the CNDDB occur within or adjacent to the project area. Habitats on the project site are shown in Figure 4.3-1.

Wetlands and Waters

The National Wetland Inventory (NWI) and the National Hydrography Database (NHD) identify only a single aquatic resource, a drainage, within the northwest corner of the overall project site. This drainage is ephemeral in nature and drains from the east and northeast to the west and southwest until it reaches Clear Lake. However, the project biologist identified a second ephemeral drainage within the southern section of the project area which also drains towards the west and Clear Lake. Both drainages are shown in Figure 4.3-2.

The mapped drainage within the northwestern section of the project area contains culverts running under Victor Street to the north of the project area. The drainage area was dry at the time of the June 2024 and May 2025 site visits. It has a flat bottom with short banks, suggesting a volume of seasonal flow occurs only after larger precipitation events. The width of the drainage averaged approximately four feet on average (between six feet wide at the culvert exit point and two feet within the flat area southwest of Victor Street). The drainage exits the project site at the northwest boundary of the project area. The banks supported upland vegetation consistent with the woodland and grassland adjacent to it. Based on aerial imagery and the NWI and NHD mapping, this unnamed drainage appears to be a tributary of Cache Creek, which drains to Clear Lake. Photos of this northern drainage are shown in Figure 4.3-3.

The second drainage within the southern section of the project area comes from an existing culvert under SR 53 to the east and flows through the southern end of the project area to the west and then offsite where it connects with Clear Lake. This drainage is not mapped within the NWI or NHD databases and is a smaller drainage than the one in the northwestern section of the project area. It is located completely in an upland area with non-native grassland species dominant along its edges. The southern drainage averages a width of approximately three to four feet and it appears to be

ephemeral in nature, also flowing only after significant rainfall events. This drainage area is not of a large enough size for aquatic resources to be present, even during the presence of water in the drainage. Photos of this southern drainage are shown in Figure 4.3-4.

The drainages do not contain any riparian or wetland associated vegetation and are not part of a defined floodplain given the low flows that flow through the small drainage channels. Therefore, the project area does not contain any wetlands (seasonal, perennial, vernal pools), named creeks or streams, ponds, or any other aquatic resources besides the two small seasonal/ephemeral drainages. No riparian or wetland associated vegetation or plant species was documented within the two drainage areas and was completely absent from the entirety of the project site. Given the updated Waters of the US 2023 Rule described in Section 4.3.3 below, most likely neither drainage would be regulated under the Clean Water Act (CWA) given the ephemeral nature of both drainages and the lack of connection to a navigable waterway.

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by the California Department of Fish and Wildlife (CDFW). The CDFW also manages the California Natural Diversity Data Base (CNDDB), which is a database inventory of the locations of rare and endangered plants, wildlife, and natural communities in California.

The project area contains the following biotic habitats: Developed and Ruderal, Non-Native Annual Grassland, Chaparral, Oak Woodlands, and Drainage. These habitats are discussed in more detail below and shown in Figure 4.3-1.

Developed and Ruderal Habitats

This habitat type within the project area is located where existing outbuildings and gravelly areas with piles of ground gravel/asphalt around the exterior occur within the site. Vegetation within this habitat is limited to non-native invasive herbaceous annual plants which are consistent with the Non-native Annual Grassland habitat type outlined below. Animal species observed in this habitat were limited to a western gray squirrel (*Sciurus griseus*). This habitat is most likely used by animals occurring in adjacent habitats to move through the larger, more suitable habitat areas.

Non-Native Annual Grasslands

Much of this habitat community is located within the large, open areas within the central section of the project site and within the understory of areas that contain woodland and chaparral species. The dominant plant species identified within this habitat community includes goat grass (*Aegilops cylindrica*), wild oats (*Avena sp.*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), yellow star-thistle (*Centaurea solstitialis*), blue wild-rye (*Elymus glaucus*), yerba santa (*Eriodictyon californicum*), narrow tarplant (*Holocarpha virgata*), Indian tobacco (*Nicotiana quadrivalvis*), European black nightshade (*Solanum nigrum*), red sandspurry (*Spergularia rubra*), clover (*Trifolium sp.*), Ithuriel's spear (*Triteleia laxa*), vetch (*Vicia sp.*), and other non-native invasive species were present in this habitat. Much of this habitat type within the overall project area is considered ruderal or degraded given the levels of historical disturbance within the site.

This habitat type is most likely used by California ground squirrels (*Otospermophilus beecheyi*), a few of which were identified within the project area along with their burrows.

Chaparral

Shrub-dominated vegetation can be found within the edges of the project area along the western and northern sections of the site. The dominant species within the chaparral are chamise (Adenostoma fasciculatum), manzanita (*Arctostaphylos spp.*), deerbrush (*Ceanothus integerrimus var. macrothyrsus*), buckbrush (*Ceanothus cuneatus*), coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*) and yerba santa (*Eriodictyon californicum*). Grasses and herbs are relatively common in the understory.

This habitat type is most likely used by California ground squirrels (*Otospermophilus beecheyi*), a few of which were identified within the project area along with their burrows. Additionally, some songbirds could be heard within the existing shrubs in this habitat type while conducting the site visit and reconnaissance-level biological resources survey.

Oak Woodlands

Oak woodlands are found in the northern and southwest sections of the project area and contain a dominance of interior live oak (*Quercus wislizeni*) mixed with blue oak (*Quercus douglasii*). The mixed oak woodlands also consist of some scattered foothill pine (*Pinus sabiniana*), which are found along the eastern section of the project area where most have been burned by recent fire activity. Within the understory of the oak woodlands, shrubs include toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos sp.*), and ceanothus (*Ceanothus sp.*) as the dominant understory vegetation.

Much of the woodland habitat and scattered oak and pine trees within the eastern and western sections of the project area were burned in a fire. Additionally, some of the trees and woodlands in the northern section of the site were also burned. Animal species observed in this habitat type include the mourning dove (*Zenaida macroura*), acorn woodpecker (*Melanerpes formicivorus*), California scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), American goldfinch (*Spinus tristis*), and the western gray squirrel.

Special-Status Species

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native

plants considered rare, threatened, or endangered. Collectively, these plants and animals are referred to as "special-status species."

The database records search and review included query of California Natural Diversity Database (CNDDB) as well as the U.S. Fish and Wildlife Service (USFWS) in the Information for Planning and Consultation (IPaC) database for records within a 3-mile radius of the project site and covering both the Lower Lake and Clearlake Highlands USGS quadrangles. The purpose of the review also is to evaluate the occurrence of species identified as federally protected by USFWS, protected in the state by California Department of Fish and Wildlife (CDFW), as well as species recognized by the CDFW as special-status. The search revealed that several special-status plant and animal species have been recorded in the vicinity of the project site, as shown in Figure 4.3-5, CNDDB and Critical Habitat Map. Table 4.3-1 summarizes these species and evaluates their potential to occur on the project site based on habitat suitability. As noted above, no Designated Critical Habitat (DCH) has been mapped by USFWS within or adjacent to the project site.

It should be noted that several species were listed in the 2022 Live Oak Associates biological evaluation for the hotel site that were not found in the more recent database search. These include three-fingered morning-glory (*Calystegia collina ssp. Tridactylosa*), deep-scarred cryptantha (*Cryptantha excavate*), Tracy's eriastrum (*Eriastrum tracyi*), San Joaquin spearscale (*Extriplex joaquinana*), congested-headed hayfield tarplant (*Hemizonia congesta ssp. Congesta*), and Napa bluecurls (*Trichostema ruygtii*). Given that these species are no longer in the any of the known biological databases, they are excluded from further discussion.

Raptors (birds of prey), migratory birds, and other avian species are protected by the federal Migratory Bird Treaty Act (MBTA), which prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. The trees on the site of the Proposed Project provide suitable nesting habitat for several migratory birds protected under the MBTA. Migratory birds that can be found nesting on-site include, but are not limited to, mourning dove (*Zenaida macroura*), western scrub-jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), Brewer's blackbird, and house finch (*Carpodacus mexicanus*).

Table 4.3-1: Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
SPECIAL-STATUS WILDLIFE SPECIES					
Red-bellied newt	*Taricha rivularis*	CSSC	Broadleaved upland forest; North coast coniferous forest; Redwood; Riparian forest; Riparian woodland	Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	**Absent**: No habitat onsite.
Burrowing owl	*Athene cunicularia*	CE/CSSC	Burrowing owls are adapted to open, sparsely vegetated areas like prairies, deserts, grasslands, and agricultural fields, where they nest in underground burrows rather than trees.	They favor areas with good drainage, avoiding wetlands or areas prone to flooding. They prefer areas with minimal understory vegetation, allowing them to easily spot prey and predators.	**Potential to occur**: **Marginal suitable habitat present along the edge of the open areas where burrows are present.**
California red legged frog	*Rana draytonii*	CT/CSSC	Aquatic; Artificial flowing waters; Artificial standing waters; Freshwater marsh; Marsh & swamp; Riparian forest; Riparian scrub; Riparian woodland; South coast flowing waters; South coast standing waters; Sacramento/San Joaquin flowing waters; Sacrament	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**Absent**: No habitat onsite.
Foothill yellow legged frog – north coast DPS	*Rana boylii*	CSSC	Aquatic; Chaparral; Cismontane woodland; Coastal scrub; Klamath/North coast flowing waters; Lower montane coniferous forest; Meadow & seep; Riparian forest; Riparian woodland; Sacramento/San Joaquin flowing waters	Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**Absent**: No habitat onsite.
Osprey	*Pandion haliaetus*	CWL	Riparian forest	Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	**Absent**: No habitat onsite.
Bald eagle	*Haliaeetus leucocephalus*	CE/CFP	Lower montane coniferous forest; Old-growth	Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Absent**: No habitat onsite.
Golden eagle	*Aquila chrysaetos*	CFP/CWL	Broadleaved upland forest; Cismontane woodland; Coastal prairie; Great Basin grassland; Great Basin scrub; Lower montane coniferous forest; Pinon & juniper	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Absent**: No habitat onsite.

Table 4.3-1: Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
			woodlands; Upper montane coniferous forest; Valley & foothill grassland		
Great blue heron	*Ardea herodius*	None	Great Blue Herons are found in a wide variety of both freshwater and saltwater habitats, including marshes, swamps, riverbanks, lakeshores, and coastal areas, often near bodies of water with fish, and they are known to nest in tall trees or structures near water.	Nesting sites require tall trees, such as are found in wooded swamps. Nests are often on islands safe from predators.	**Absent**: No habitat onsite.
Great egret	*Ardea alba*	None	Commonly found in a variety of wetlands, including marshes, swamps, and along the edges of lakes, rivers, and estuaries, both freshwater and saltwater	They typically nest in colonies, often in trees or shrubs near water, sometimes in thickets a distance from water, or low in the marsh	**Absent**: No habitat onsite.
Western yellowbilled cuckoo	*Coccyzus americanus occidentalis*	FT/CE	Riparian forest	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Absent:** No habitat onsite.
Purple martin	*Progne subis*	CSSC	Broadleaved upland forest; Lower montane coniferous forest	Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	**Potential to occur: Marginal suitable habitat present.**
Northern spotted owl	*Strix occidentalis caurina*	FT/CT	Northern spotted owls primarily inhabit old-growth and mature coniferous forests, particularly Douglas fir forests, with high canopy closure, complex canopy structure, and large decaying trees or snags	Nests in broken treetops, tree-trunk hollows, mistletoe tangles, or old nests built by other raptors or squirrels. Old-growth forests provide a variety of prey, including flying squirrels, woodrats, and other small mammals.	**Absent:** No habitat onsite.
Sacramento perch	*Archoplites interruptus*	CSSC	Aquatic; Sacramento/San Joaquin flowing waters; Sacramento/San Joaquin standing waters	Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	**Absent:** No habitat onsite.
Clear Lake tule perch	*Hesperoleucus venustus x H. symmetircus*	CSSC	Aquatic		**Absent:** No habitat onsite.
Clear Lake roach	*Hysterocarpus traskii lagunae*	CSSC	Aquatic		**Absent:** No habitat onsite.

Table 4.3-1: Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
Clear Lake prickly sculpin	*Cottus asper ssp.*	CSSC	Aquatic		**Absent:** No habitat onsite.
Clear Lake hitch	*Lavinia exilicauda chi*	PT/CT	Aquatic; Sacramento/San Joaquin flowing waters; Sacramento/San Joaquin standing waters	Adults found in the limnetic zone. Juveniles found in the nearshore shallow-water habitat hiding in the vegetation.	**Absent:** No habitat onsite.
Townsend's big eared bat	*Corynorhinus townsendii*	CSSC	Broadleaved upland forest; Chaparral; Chenopod scrub; Great Basin grassland; Great Basin scrub; Joshua tree woodland; Lower montane coniferous forest; Mojavean desert scrub; Meadow & seep; Riparian forest; Riparian woodland; Sonoran desert scrub; Sonoran	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Potential to occur: Marginal suitable habitat present.**
Pallid bat	*Antrozous pallidus*	CSSC	Chaparral; Coastal scrub; Desert wash; Riparian woodland; Upper montane coniferous forest; Valley & foothill grassland	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Potential to occur: Suitable habitat present.**
Long-eared myotis	*Myotis evotis*	None	Found in all brush, woodland and forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands and forests.	Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.	**Potential to occur: Suitable habitat present.**
Yuma myotis	*Myotis yumanensis*	CSSC	Yuma myotis are found near water sources, and occupy a variety of habitats including riparian areas, deserts, grasslands, and forests, often roosting in buildings, bridges, caves, and trees.	Yuma myotis forage for insects that are associated with water sources, such as streams, rivers, and ponds	**Absent:** No habitat onsite.
Northwestern pond turtle	*Actinemys marmorata*	PT/CSSC	Aquatic; Artificial flowing waters; Klamath/North coast flowing waters; Klamath/North coast standing waters; Marsh & swamp; South coast flowing waters; South coast standing waters; Sacramento/San Joaquin flowing waters; Sacramento/San Joaquin standing waters	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Absent:** No habitat onsite.
Monarch butterfly	*Danaus plexippus*	FC	Require habitats with milkweed for caterpillars and nectar-rich flowers	Milkweed is the host plant of this species and when no milkweed is	**Absent:** No habitat onsite.

Table 4.3-1: Special-Status Wildlife Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
			for adults in fields, meadows, grasslands, roadsides, and even urban gardens	present this species is absent from the area.	
Brownish dubiraphian riffle beetle	*Dubiraphia brunnescens*	None	Aquatic	Inhabits exposed, wave-washed willow roots.	**Absent:** No habitat onsite.
Wilbur Springs shorebug	*Saldula usingeri*	None	Aquatic	Inhabits the shoreline of the creek at Wilbur Hot Springs.	**Absent:** No habitat onsite.
American bumble bee	*Bombus pensylvanicus*	None	Require open habitats like grasslands, fields, and farmlands.	Prefer areas with a diverse array of flowers blooming throughout the growing season, and they typically nest on the ground, often in tufts of grass, hay, or other debris.	**Absent:** No habitat onsite given lack of flowering plants onsite.
Borax Lake cuckoo wasp	*Hedychridium milleri*	None	External parasite of wasp and bee larva.		**Absent:** No suitable habitat onsite.
Western ridged mussel	*Gonidea angulata*	None	Aquatic	Primarily creeks and rivers and less often lakes. Originally in most of state, now extirpated from central and southern California.	**Absent:** No habitat onsite.
Clear Lake pyrg	*Pyrgulopsis ventricosa*	None	Aquatic	Known only from spring fed creek in Seigler Canyon	**Absent:** No habitat onsite.
Tule elk	*Cervus canadensis nannodes*	None	Tule elk, a subspecies of elk found only in California, are adapted to open, brushy habitats, including grasslands, valley floors, riparian areas, oak woodlands, and chaparral	They are the most specialized elk in North America, adapted to open country and semidesert conditions, unlike other elk species that typically prefer heavy cover.	**Absent:** No habitat onsite.

Note:
Listing Status
State Listing Status - CDFW CNDDB

- CE = California Endangered (listed under California Endangered Species Act – CESA)
- CT = California Threatened (listed under CESA)
- CSSC = California Species of Special Concern (designated by CDFW; not formally listed)
- CWL= California Watch List (species under observation by CDFW for potential concern)
- CFP = California Fully Protected (state law prohibits take; rare, high-protection category)

Federal Listing Status - USFWS IPaC

- FT= Federally Threatened (listed as Threatened under the federal Endangered Species Act – ESA)
- FE= Federally Endangered (listed as Endangered under the federal Endangered Species Act – ESA)
- PT = Proposed for Federal Threatened Status (awaiting final federal listing decision)
- PE = Proposed for Federal Endangered Status (similar to PT, for endangered designation)

FC = Federal Candidate (species proposed for listing; review underway, but not yet listed)

Table 4.3-2: Special-Status Plant Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
SPECIAL STATUS PLANTS					
Loch Lomond button-celery (coyote thistle)	*Eryngium constancei*	FE/CE/1B.1	Vernal pool; Wetland	Volcanic ash flow vernal pools. 460-855 m.	**Absent:** No habitat onsite.
Hoover's lomatium	*Lomatium hooveri*	4.3	Foothill woodlands and chaparral	Native perennial herb with a blooming period between April and July	**Potential to occur:** Does not occur - Marginal suitable habitat present but not identified during two botanical surveys during their blooming season.
Napa lomatium	*Lomatium repostum*	4.2	Foothill woodlands and chaparral	Native perennial herb with a blooming period between March and June	**Potential to occur:** Does not occur - Marginal suitable habitat present but not identified during two botanical surveys during their blooming season.
Bristly leptosiphon	*Leptosiphon aureus*	4.2	Foothill woodlands and chaparral	Native annual herb with a blooming period between March and June	**Potential to occur:** Does not occur - Marginal suitable habitat present but not identified during two botanical surveys during their blooming season.
Woolly meadowfoam	*Limnanthes floccosa ssp. floccosa*	4.2	Foothill woodlands, valley grasslands, chaparral and in wetlands	Native annual herb with a blooming period between March and May	**Absent:** No habitat onsite.
Pink star-tulip	*Calochortus uniflorus*	4.2	Coastal scrub and woodlands and in wetlands	Native perennial herb with a blooming period between April and June	**Absent:** No habitat onsite.
Burke's goldfields	*Lasthenia burkei*	FE/CE/1B.1	Meadow & seep; Vernal pool; Wetland	Most often in vernal pools and swales. 15-580 m.	**Absent:** No habitat onsite.
Colusa layia	*Layia septentrionalis*	1B.2	Chaparral; Cismontane woodland; Ultramafic; Valley & foothill grassland	Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 15-1100 m.	**Absent:** No habitat onsite.
Hall's harmonia	*Harmonia hallii*	1B.2	Chaparral; Ultramafic	Serpentine hills and ridges. Open, rocky areas within chaparral. 335-945 m.	**Absent:** No habitat onsite.

Table 4.3-2: Special-Status Plant Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
Bent-flowered fiddleneck	*Amsinckia lunaris*	1B.2	Coastal bluff scrub; Cismontane woodland; Valley & foothill grassland	3-795 m.	**Potential to occur:** Does not occur - Marginal suitable habitat present but not identified during two botanical surveys during their blooming season.
Serpentine birds-beak	*Cordylanthus tenuis ssp. brunneus*	4.3	Foothill woodlands and chaparral	Native annual herb with a blooming period between July and August	**Absent:** No habitat onsite.
Swamp larkspur	*Delphinium uliginosum*	4.2	Valley grasslands and chaparral in wetlands	Native perennial herb with a blooming period between May and June	**Absent:** No habitat onsite.
Marsh zigadenus	*Toxicoscordion fontanum*	4.2	Foothill mixed evergreen woodlands and chaparral and in wetlands	Native perennial herb with a blooming period between April and July	**Absent:** No habitat onsite.
Four-petaled pussypaws	*Calyptridium quadripetalum*	4.3	Chaparral	Native annual herb with a blooming period between April and June	**Absent:** No habitat onsite.
Michael's rein orchid	*Piperia michaelii*	4.2	Foothill woodlands	Native perennial herb with a blooming period between April and August	**Absent:** No habitat onsite.
Twig like snapdragon	*Antirrhinum virga*	4.3	Openings in chaparral habitats	Native perennial herb with a blooming period between June and July	**Absent:** No habitat onsite.
Watershield	*Brasenia schreberi*	2B.3	Marsh & swamp; Wetland	Aquatic known from water bodies both natural and artificial in California. 1-2180 m.	**Absent:** No habitat onsite.
Oval-leaved viburnum	*Viburnum ellipticum*	2B.3	Chaparral; Cismontane woodland; Lower montane coniferous forest	215-1400 m.	**Potential to occur:** Does not occur - Marginal suitable habitat present but not identified during two botanical surveys during their blooming season.
Lake County stonecrop	*Sedella leiocarpa*	FE/CE/1B.1	Cismontane woodland; Valley & foothill grassland; Vernal pool; Wetland	Level areas that are seasonally wet and dry out in late spring; substrate usually of volcanic origin. 515-640 m.	**Absent:** No habitat onsite.
Raiche's manzanita	*Arctostaphylos stanfordiana ssp. raichei*	1B.1	Chaparral; Lower montane coniferous forest; Ultramafic	Rocky, serpentine sites. Slopes and ridges. 485- 1070 m.	**Absent:** No habitat onsite.
Konocti manzanita	*Arctostaphylos manzanita ssp. elegans*	1B.3	Chaparral; Cismontane woodland; Lower montane coniferous forest	Volcanic soils. 225-1830 m.	**Absent:** No habitat onsite.
Jepson's milkvetch	*Astragalus rattanii var. jepsonianus*	1B.2	Cismontane woodland; Ultramafic; Valley & foothill grassland	Commonly on serpentine in grassland or openings in chaparral. 175-1005 m.	**Absent:** No habitat onsite.

Table 4.3-2: Special-Status Plant Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
Two-carpellate western flax	*Hesperolinon bicarpellatum*	1B.2	Chaparral; Ultramafic	Serpentine barrens at edge of chaparral. 175-825 m.	**Absent:** No habitat onsite.
Sharsmith's western flax	*Hesperolinon sharsmithiae*	1B.2	Chaparral; Ultramafic	Serpentine substrates. 180-670 m.	**Absent:** No habitat onsite.
Keck's checkerbloom	*Sidalcea keckii*	FE/1B.1	Cismontane woodland; Ultramafic; Valley & foothill grassland	Grassy slopes in blue oak woodland. On serpentine-derived, clay soils, at least sometimes. 85-505 m.	**Absent:** No habitat onsite.
Marsh checkerbloom	*Sidalcea oregana ssp. hydrophila*	1B.2	Meadow & seep; Riparian forest; Wetland	Wet soil of streambanks, meadows. 455-2030 m.	**Absent:** No habitat onsite.
Hellers bushmallow	*Malacothamnus helleri*	3.3	Chaparral	Native shrub with blooming period between June and August	**Absent:** No habitat onsite.
Brandegee's eriastrum	*Eriastrum brandegeeae*	1B.1	Chaparral; Cismontane woodland	On barren volcanic soils; often in open areas. 410- 845 m.	**Absent:** No habitat onsite.
Baker's navarretia	*Navarretia leucocephala ssp. bakeri*	1B.1	Cismontane woodland; Lower montane coniferous forest; Meadow & seep; Valley & foothill grassland; Vernal pool; Wetland	Vernal pools and swales; adobe or alkaline soils. 3-1680 m.	**Absent:** No habitat onsite.
Few-flowered navarretia	*Navarretia leucocephala ssp. pauciflora*	FE/CT/1B.1	Vernal pool; Wetland	Volcanic ash flow, and volcanic substrate vernal pools. 425-855 m.	**Absent:** No habitat onsite.
Many-flowered navarretia	*Navarretia leucocephala ssp. plieantha*	FE/CE/1B.2	Vernal pool; Wetland	Volcanic ash flow vernal pools. 30-915 m.	**Absent:** No habitat onsite.
Bolander's horkelia	*Horkelia bolanderi*	1B.2	Cismontane woodland; Lower montane coniferous forest; Meadow & seep; Valley & foothill grassland	Grassy margins of vernal pools and meadows. 455-855 m.	**Absent:** No habitat onsite.
Boggs Lake hedgehyssop	*Gratiola heterosepala*	CE/1B.2	Freshwater marsh; Marsh & swamp; Vernal pool; Wetland	Clay soils; usually in vernal pools, sometimes on lake margins. 4-2410 m.	**Absent:** No habitat onsite.
Little mousetail	*Myosurus minimus ssp. apus*	3.1	Vernal pools and other seasonal wetlands	Native annual herb with a blooming period between March and June	**Absent:** No habitat onsite.

Table 4.3-2: Special-Status Plant Species with the Potential to Occur in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat	Microhabitat	Potential to Occur in Project Area
Mendocino tarplant	*Hemizonia congesta ssp. calyculata*	4.3	Foothill woodlands and valley grasslands	Native annual herb with a blooming period between July and November	**Absent:** Marginal suitable habitat present but not identified during a July 2025 botanical survey.
Slender Orcutt grass	*Orcuttia tenuis*	FT/CE/1B.1	Vernal pool; Wetland	Often in gravelly substrate. 25-1755 m.	**Absent:** No habitat onsite.
California alkali grass	*Puccinellia simplex*	1B.2	Chenopod scrub; Meadow & seep; Valley & foothill grassland; Vernal pool	Alkaline, vernally mesic. Sinks, flats, and lake margins. 1-915 m.	**Absent:** No habitat onsite.
Adobe-lily	*Fritillaria pluriflora*	1B.2	Chaparral; Cismontane woodland; Ultramafic; Valley & foothill grassland	Usually on clay soils; sometimes serpentine. 45- 945 m.	**Absent:** No habitat onsite.
California satintail	*Imperata brevifolia*	2B.1	Chaparral; Coastal scrub; Mojavean desert scrub; Meadow & seep; Riparian scrub; Wetland	Mesic sites, alkali seeps, riparian areas. 3-1495 m.	**Absent:** No habitat onsite.
Eel-grass pondweed	*Potamogeton zosteriformis*	2B.2	Marsh & swamp; Wetland	Ponds, lakes, streams. 90-2135 m.	**Absent:** No habitat onsite.

Note:

California Rank Plant Rank - *California Native Plant Society (CNPS) Rare Plant Ranking System*

- 1A: Plants presumed extirpated in California and either rare or extinct elsewhere – not seen in California in many decades, despite extensive searching.
- 1B: Plants rare, threatened, or endangered in California and elsewhere – these species are often formally listed under the California or federal Endangered Species Acts.
- 2A: Plants presumed extirpated in California but common elsewhere – similar to 1A, but populations exist outside California.
- 2B: Plants rare, threatened, or endangered in California but more common elsewhere – may still be at risk within California due to limited distribution or threats.
- 3: Plants about which more information is needed – a review list – insufficient data exist to determine rarity or threats. May be moved to another list upon further study.
- 4: Plants of limited distribution – a watch list – not currently rare or endangered but of potential concern due to restricted distribution or recent decline.

Threat Status -

- .1 - Seriously threatened in California (over 80% of occurrences are threatened or high degree of immediacy)
- .2 - Fairly threatened in California (20–80% of occurrences)
- .3 - Not very threatened in California (less than 20% of occurrences are threatened)

***Example*:** *CRPR 1B.1* = A species rare in California and elsewhere and **seriously threatened** in California.

Soils

Soil Survey

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey is an online tool designed to provide public access to soil data and information produced by the NRCS. Its primary purpose is to support land use planning, environmental assessment, and resource management by offering detailed, site-specific soil maps and interpretations for appropriate land use. The Web Soil Survey provides soil data relevant to a given location, including soil type, characteristics, suitability for development, hydrologic properties, erosion potential, and other key factors that influence land use decisions and environmental impacts.

Per a review of the USDA-NRCS Web Soil Survey, three soil types occur within the project site:

- Asbill clay loam, 5 to 8 percent slopes
- Asbill clay loam, 8 to 15 percent slopes
- Benridge-Sodabay loams, 8 to 15 percent slopes

These soils are well drained with medium to rapid runoff and moderately slow permeability. They are not considered hydric or edaphic and none of these soil types are listed within the NRCS Hydric Soils List for Lake County. Mapped hydric soils can correlate with potential soils that associate with wetlands and other aquatic resources; however, given the arid and disturbed nature of the project area, water quickly evaporates and runs offsite to the north and south and then to the west towards Clear Lake. Therefore, sufficient time for the development of hydric soils and other characteristics associated with wetlands and wetland hydrology does not occur within the project area. The existing soil types are common in the region for upland and non-hydric soils.

Asbill clay loam, 5 to 8 percent slopes and 8 to 15 percent slopes
Asbill clay loam occurs at slopes of 5 to 8 percent and is also mapped within a small area along the northern border of the overall project area between 8 to 15 percent slopes. From 0 to 13 inches deep clay loam occurs and from 13 to 39 inches silty clay occurs, with bedrock below that area. There are more than 80 inches of depth to groundwater, and the soil is naturally well drained.

Benridge-Sodabay loams, 8 to 15 percent slopes
The existing project site slopes generally toward the west at varying slopes ranging up to about 2:1. The USGS Web Soil Survey is utilized to identify existing soil conditions within each of the four disconnected zones. A majority of the north and western sections of the project site are mapped as Benridge-Sodabay loams, with slopes of 8 to 15 percent. Loam and gravelly clay loam exist down to a depth of 21 to 26 inches. Gravelly clay lies below the loam, and it is expected that this soil will exist down to a depth of 63-68 inches. There are more than 80 inches of depth to any restrictive layer or water table, and the soil is naturally well drained. Clay loam is present down to a depth of 13 inches, with silty clay occurring from 13 to 39 inches in depth. Below this lies bedrock. There are more than 80 inches of depth to groundwater, and the soil is naturally well drained.

Geotechnical Survey

Geotechnical Report findings are summarized as follows as they relate to the existing soils within the overall project area:

- The soils present are highly disturbed as a result of previous construction and use of the site as a municipal airport; and
- The underlying soils are of a varying condition, having soils ranging down to 10 +/- feet deep on the north side, with some fill and very large boulders, to shallow soils and volcanic rock at, or near, the ground surface, as you move across the site to the south.[5]

Protected Trees

The City of Clearlake protects native oak trees under section 18-40 of its Zoning Code.[6] A Native Tree Removal Permit must be approved, or approved with conditions, by the Director of Community Development for the removal of protected trees. The following native oak trees are protected if they are greater than six inches in diameter at breast height (DBH):

- Blue Oak (*Quercus douglasii*)
- Valley Oak (*Quercus lobata*)
- Interior Live Oak (*Quercus wislizeni*)
- California Black Oak (*Quercus kelloggii*)
- Canyon Live Oak (*Quercus chrysolepsis*)
- Oregon White Oak (*Quercus garryana*)

Additionally, any other tree designated by the City Council as a "Heritage Tree" is protected. A "Heritage Tree" is a tree or grove of trees designated by the Council for reasons of historical significance or for reasons of age, size, visibility, beauty, rarity, or for an ecological or other special/unusual attribute. There are no currently designated "Heritage Trees" on the project site.

The project site contains a number of protected oak trees and oak woodlands as shown in Figure 4.3-6. The dominant protected species within the project area is interior live oak (*Quercus wislizeni*). Other protected species documented include a mixture of blue oak (*Quercus douglasii*) and a small number of small stature white oak (*Quercus alba*) and valley oak (*Quercus lobata*). The mixed oak woodlands also include some scattered foothill pine (*Pinus sabiniana*), which are also scattered along the eastern section of the project area where most have been burned by recent fire activity. Within the understory of the oak woodlands, larger shrubs and smaller stature trees include toyon (*Heteromeles arbutifolia*) and black elderberry (*Sambucus nigra)*.

The project site contains 1.75 acres of oak woodland within the northern project area and 1.9 acres of oak woodland within the southern project area, for a total of 3.65 acres of oak woodland within

[5] Clearlake Airport Redevelopment Project Geotechnical Report. NV5, 2022 and Moore/Twining Associates. 2008.
[6] Clearlake Municipal Code Section 18-40, Native Tree Protection. https://clearlake.municipal.codes/CMC/18-40. Accessed July 21, 2025.

the project area. An additional 108 individual oak trees qualifying for protection under the City of Clearlake Municipal Code are located outside the 3.65 acres of oak groves. Figure 4.3-6 shows locations of the oak woodlands and protected individual oak trees within the project Site. Figure 4.3-7 documents the existing oak woodlands in a series of photographs.

4.3.3 Regulatory Context

A number of Federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the project site.

Federal Regulations

The following are the federal environmental laws and policies relevant to biological resources, as related to the Proposed Project.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Once a species is listed it is fully protected from a "take" unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (title 16, section 1532 of the U.S. Code [USC]; title 50, section 17.3 of the Code of Federal Regulations [CFR]). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provides regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Wildlife Code states, "It is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Clean Water Act – Section 404

The U.S. Army Corps of Engineers (USACE or Corps) and the Environmental Protection Agency ("EPA") regulate the discharge of dredge or fill material into "waters of the U.S." under Section 404 of the CWA. "Waters of the U.S." include wetlands and lakes, rivers, streams, and their tributaries. Wetlands are defined for regulatory purposes as areas "…inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions" as specified in 33 CFR 328.3 and 40 CFR 230.3.

Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as "other waters of the U.S." Jurisdictional limits of these features are typically noted by the Ordinary High Water Mark ("OHWM"). The OHWM is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as mark a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328, and 33 CFR 329).

Isolated ponds or seasonal depressions had been previously regulated as waters of the U.S. However, in Solid Waste Agency of Northwestern Cook County (SWANCC) v. USACE et al. (January 8, 2001), the U.S. Supreme Court ruled that certain "isolated" wetlands (e.g., non-navigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under the jurisdiction of the Corps. Some circuit courts (e.g., U.S. v. Deaton, 2003; U.S. v. Rapanos, 2003; Northern California River Watch v. City of Healdsburg, 2006), though, have ruled that SWANCC does not prevent CWA jurisdiction if a "significant nexus" such as a hydrologic connection exists, whether it be man-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland and the navigable water), and changes to chemical concentrations in the navigable water is present due to water from the wetland.

The Clean Water Rule is a 2015 regulation published by the EPA and Corps to clarify water resources management in the United States under a provision of the CWA. The regulation defined the scope of federal water protection in a more consistent manner, particularly over streams and wetlands, which have a significant hydrological and ecological connection to traditional navigable waters, interstate waters, and territorial seas. It is also referred to as the Waters of the United States rule, which defines all bodies of water that fall under U.S. federal jurisdiction.

However, on April 21, 2020, the EPA and the Corps published the Navigable Waters Protection Rule to define "Waters of the United States" in the Federal Register. For the first time, the agencies have streamlined the definition so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. Congress, in the CWA, explicitly directed the Agencies to protect "navigable waters." The Navigable Waters Protection Rule regulates traditional navigable waters and the core tributary systems that provide perennial

or intermittent flow into them. Under the final rule, four clear categories of waters are federally regulated:

- Territorial seas and traditional navigable waters
- Perennial and intermittent tributaries to those waters
- Certain lakes, ponds, and impoundments
- Wetlands adjacent to jurisdictional waters

As of June 22, 2020, the final rule details 12 categories of exclusions, features that are not "waters of the United States," such as features that only contain water in direct response to rainfall (e.g., ephemeral features); groundwater; many ditches; prior converted cropland; and waste treatment systems.

However, the 2023 Updated Water of the United States (WOTUS) Rule reversed the 2020 ruling such that only perennial aquatic resources with documented connections to navigable waterways are currently regulated under the CWA.

Clean Water Act – Section 401

Section 401 of the CWA (33 USC 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board. To obtain the water quality certification, the Regional Water Quality Control Board must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

State Regulations

The following are the state environmental laws and policies relevant to biological resources, as related to the Proposed Project.

California Environmental Quality Act - Public Resources Code §21000

CEQA identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria (CEQA Guidelines section 15380). Species that are not listed under the federal ESA or CESA, but are otherwise eligible for listing (i.e. candidate or proposed) may be protected by the local government until the opportunity to list the species arises for the agency responsible. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that

have low populations, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere.

California Endangered Species Act - Fish and Game Code §2050-2097

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species but did not do so for rare plants. Thus, there are three categories for the listing of plants under CESA: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

California Native Plant Protection Act – Fish and Game Code §1900-1913

The State Legislature passed the Native Plant Protection Act (NPPA) in 1977, in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Predatory Birds - Fish and Game Code §3503, 3503.5, 3800

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, possess, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Streambed Alteration - Fish and Game Code §1601-1603

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a “Streambed Alteration Agreement” from CDFW prior to any alteration of a lakebed, stream channel, or their banks. Through this agreement, CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden

and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from the impacts of the work to be performed.

Oak Woodlands - Public Resources Code §21083.4

Oak woodland habitats are protected under both State law, and the City of Clearlake, in their General Plan and their Municipal Code as outlined below. State laws that regulate the protection and management of oak woodlands include CEQA as well as Professional Forester's Law. According to Public Resources Code section 21083.4, "oaks" are defined as a native tree species in the genus *Quercus* that is 5 inches diameter at breast height (DBH) or greater. Oak woodlands are defined as areas that have 10 percent oak canopy cover or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California, in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

Local Regulations

The following are the local governments' environmental policies and programs relevant to biological resources, as related to the Proposed Project.

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, strategies and actions that affect biological resources of this project as follows:

Goal 2: The County's network of native species and econogical communities is healthy, abundant, and distributed across the landscape to support and sustain their full ecological and cultural roals, furthering countywide climate resilience.

Strategy 4: Strengthen Habitat Connectivity and Interagency Coordination. Establish comprehensive coordination between agricultural, natural resource, and tribal agencies to identify key habitats and connections and to improve habitat connectivity planning across private and public lands while integrating traditional ecological knowledge into biodiversity conservation efforts.

Action 4.1: Develop and implement a comprehensive habitat connectivity plan that addresses biodiversity conservation across public and private lands, including wildlife corridors and habitat linkages.

Action 4.2: Coordinate with the Tribal Eco Restoration Alliance to systematically integrate traditional ecological knowledge into public and private habitat management programs and biodiversity conservation planning.

Action 5.5 Implement requirements for native plant species in public parks, publicly owned facilities, and private development projects to support pollinator habitat and reduce maintenance needs during drought conditions.

2040 City of Clearlake General Plan

The following *2040 General Plan* policies and programs relating to biological resources are applicable to the Proposed Project.

Policy CO 2.2.1	Promote native landscaping for municipal, residential, and commercial properties.
Policy CO 2.3.1	Promote use of low impact development (LID) practices.
Policy CO 4.1.1	The City shall adhere to all federal and state requirements regarding the protection of endangered species.

Policy CO 4.1.2	The City shall limit the encroachment of development within areas that contain a high potential for sensitive habitat, and direct development into less significant habitat areas.
Policy CO 4.1.3	The City shall require that buildings and other forms of development be set back (City Standard) from riparian corridors to avoid damage to habitat.
Policy CO 4.1.4	The City shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats.
Policy CO 4.1.5	The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained.
Policy CO 4.1.7	The City shall consider using appropriate Mitigation Measures for future projects (i.e., community area plans or individual projects) based on mitigation standards or protocols adopted by the applicable statute or agency (e.g., CDFW, USFWS, NMFS, etc.) with jurisdiction over any affected sensitive habitats or special-status species.
Policy CO 4.2.1	The City should conserve existing open space and prevent wildlife habitat and connecting corridor loss resulting from new development.
Policy CO 4.3.1	The Lake County list of native vegetation should be included among the City's approved list of plants.
Policy CO 4.3.2	In accordance with CEQA Guidelines section 15125 and/or 15380, plants listed in the California Native Plant List at 1A (Plants Presumed Extirpated (Extinct) in California and Either Rare or Extinct Elsewhere) or 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere shall be considered potentially significant) shall be analyzed during preparation of environmental documents.
Policy CO 8.1.1	Work with other government land management agencies to preserve and protect biological resources while maintaining the ability to utilize and enjoy the natural resources in the City.
Policy CD 4.1.1	The City shall maintain and increase quantity of tree coverage.

Policy CO 8.1.1 Work with other government land management agencies to preserve and protect biological resources while maintaining the ability to utilize and enjoy the natural resources in the City.

City of Clearlake Zoning Ordinance

Native Tree Protection

Through the City's Native Tree Protection regulations, the City has determined that trees are a valuable asset to make the environment healthier and more aesthetically pleasing. In accordance with Section 18-40 of the Zoning Code, native oak trees especially should be preserved or replaced. The following are identified as trees requiring a tree removal permit:

- Blue Oak (*Quercus douglasii*) greater than six inches diameter at breast height (DBH);
- Valley Oak (*Quercus lobata*) greater than six inches DBH;
- Interior Live Oak (*Quercus wislizeni*) greater than six inches DBH;
- California Black Oak (*Quercus kelloggii*) greater than six inches DBH;
- Canyon Live Oak (*Quercus chrysolepsis*) greater than six inches DBH;
- Oregon White Oak (*Quercus garryana*) greater than six inches DBH; and
- Any other tree designated by the City Council as a "Heritage Tree."

The regulations include exemptions for tree removal permits, prohibitions on disturbance of protected trees, penalties for tree removal/disturbance, replacement requirements, and identification of a payment fund for tree removal.

4.3.4 Impacts and Mitigation Measures

This section describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential impacts related to biological resources.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact may occur if the Proposed Project would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS);
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;

- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of a maximum of 540,000 square feet of commercial building area and three dwellings, using the assumptions of the General Plan (see Chapter 4.9, Land Use). Complete buildout of the project site, however, would be conducted over a long period of time beyond the 2040 General Plan time horizon.

Public Resources Code section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines section 15183, Streamlining for Infill Projects.

The information contained in this analysis is primarily based on the *Biological Resources Assessment* and *Tree Inventory and Assessment* prepared by Greg Matuzak Environmental Consulting LLC, in May and June of 2025, respectively. Previous biological studies were also developed for the proposed hotel site within the northern area of the project site by Live Oak Associates, Inc. in July of 2022. The results of these evaluations were incorporated into Greg Matuzak's assessments.

As part of the *Biological Resources Assessment*, Greg Matuzak conducted a reconnaissance-level pedestrian field survey for the entire project area. Mr. Matuzak is a Qualified Biologist with both CDFW and USFWS and has conducted similar assessments of sensitive biological resources within Lake County and several other neighboring counties in Northern California. The initial site visit and biological resources reconnaissance-level survey was conducted on June 19, 2024. A follow-up reconnaissance-level survey of the entirety of the project area was conducted to ensure the additional areas included in the project area were surveyed. These additional site visits and surveys occurred on May 21-22, 2025.

The assessment below, as well as the impact analysis and proposed mitigation measures, outline the process to ensure any such species are evaluated, and if they are present, that any potential impact to them would be avoided, minimized, and/or mitigated to a level of less than significant under CEQA. A photo log is included in the Biological Resources Assessment that documents the subject parcels and proposed areas of development during the site visit and field survey. Additionally, a list of plant and wildlife species observed during June 2024 and May 2025 reconnaissance-level surveys of the project area is included in the Biological Resources Assessment.

The following information was used to identify potential special-status plant and wildlife species within the project region that could be found to use the subject parcels and project development areas within the subject parcels:

- California Department of Fish and Wildlife's California Natural Diversity Database Records search for the Lower Lake and Clearlake Highlands USGS Topo Quads where the Project is located and a search of the project area and 3-mile buffer around the Project (CDFW, 2025);
- California Native Plant Society's online Inventory of Rare and Endangered Plants of California for both the Lower Lake and Clearlake Highlands USGS Topo Quads where the project area is located (CNPS, 2025);
- U.S. Fish and Wildlife Service Federal Endangered and Threatened Species Information for Planning and Consultation (IPaC) for the project area. Sacramento Fish and Wildlife Service (USFWS, 2025);
- National Wetland Inventory and National Hydrography Database (NWI and NHD, 2025);
- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2025);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Lake County (NRCS, 2025);
- City of Clearlake Municipal Code; and
- City of Clearlake 2040 General Plan Adopted by the City Council by Resolution 2017-10, on February 23, 2017.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the Proposed Project in comparison to existing conditions and the standards of significance presented above, as compared to General Plan buildout of the site. **Where mitigation is identified, the entity grading, constructing, or otherwise developing the site or a portion of the site (the City, a developer, etc.) is responsible for implementation of the mitigation measure, unless otherwise noted.**

4.3-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW (*Less than Significant with Mitigation*)

Special-Status Plant Species

As shown in Table 4.3-1, the Biological Resources Assessment prepared for the Project identifies a total of six special-status plant species that have the potential to occur on the project site.

- Hoover's lomatium (*Lomatium hooveri)* is a California Rare Plant Rank (CRPR) 4.3 native perennial herb with a blooming period between April and July that occurs in foothill woodlands and chaparral. There is marginal suitable habitat present for this species.
- Napa lomatium (*Lomatium repostum*) is a CRPR 4.2 native perennial herb with a blooming period between March and June that occurs in foothill woodlands and chaparral. There is marginal suitable habitat present for this species.
- Bristly leptosiphon (*Leptosiphon aureus*) is a CRPR 4.2 native annual herb with a blooming period between March and June that occurs in foothill woodlands and chaparral. There is marginal suitable habitat present for this species.
- Bent-flowered fiddleneck (*Amsinckia lunaris*) is a CRPR 1B.2 native annual herb with a blooming period of March to June found in coastal bluff scrub, cismontane woodland, and valley and foothill grassland. There is marginal suitable habitat present for this species.
- Oval-leaved viburnum (*Viburnum ellipticum*) is a CRPR 2B.3 native perennial deciduous shrub with a blooming period of May through June found in chaparral, cismontane woodland, and lower montane coniferous forest. There is marginal suitable habitat present for this species.
- Mendocino tarplant (*Hemizonia congesta* ssp. *Calyculata*) is a CRPR 4.3 native annual herb with a blooming period between July and November and found in foothill woodlands and valley grasslands. There is marginal suitable habitat present for this species.

However, for the first five species, two botanical surveys were conducted during their blooming seasons, one in June 2024 and another in May 2025. These species can therefore

be excluded from further analysis based on the fact that they were not found during either survey, and only marginal suitable habitat was present. A botanical survey was conducted for Mendocino tarplant in July 2025 and this species was not found and can therefore also be excluded from further discussion.

The biological resources reconnaissance-level surveys are considered comprehensive in nature, and the current presence of special-status species within the project area can be ruled out. Given that the proposed areas of disturbance within the project area have been previously disturbed to a large extent, and due to the invasive nature of the non-native annual grasslands that dominate the project area, there is an overall low potential for the special-status plant species to occur in the future within the project area.

Special-Status Wildlife Species

The project area contains suitable habitat for six special-status wildlife species: the western burrowing owl (*Athene cunicularia*), purple martin (*Progne subis*), Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), long-eared myotis (*Myotis evotis*).

Clear Lake roach (*Lavinia symmetricus ssp.*) was identified in the Biological Resources Evaluation dated July 21, 2022 (Live Oak Associates), for the proposed hotel within the northern area of the project site. However, the project biologist for the overall site has conducted a comprehensive reconnaissance-level survey of the hotel site and its drainage feature and has determined that Clear Lake roach does not have the potential to occur in the hotel-site drainage due to lack of suitable habitat. This drainage is predominately dry without any aquatic habitat or pooling, and the USFWS identifies aquatic environments such as streams that contain rainbow trout and other fish species as likely habitat. Therefore, Clear Lake roach does not have the potential to occur on the project site and can be excluded from further evaluation.

Although elderberry shrubs were documented within the northern sections of the project area, the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) has not been documented within Lake County, and neither CDFW or USFWS included the species within the database reviews covering the project area. Therefore, the valley elderberry longhorn beetle is considered absent from the project area and any impact to the existing elderberry shrubs within the project area would not require a survey or mitigation as part of any proposed removal of those shrubs.

Western burrowing owl

Burrowing owl is a candidate species for listing under the California Endangered Species Act and is considered a protected species, though its formal listing status is still under review. Burrowing owl is adapted to open, sparsely vegetated areas like prairies, deserts, grasslands, and agricultural fields, where they nest in underground burrows rather than trees. There is marginal suitable habitat for burrowing owl present along the edge of the open areas where rodent burrows are present. Although the species was not identified during the June 2024 and May 2025 surveys, the species could forage or nest within theese

areas of the project site (refer to Figure 4.3-8 which shows marginal habitat for the Burrowing Owl).

Purple martin

Purple martin is a California Species of Special Concern and is protected under the MBTA. The breeding season for most protected birds in the vicinity of the project area is generally from February 1 to August 31 of each year. Vegetation clearing or tree removal within the woodland portions of the project site outside of the breeding season for such bird species would not require the implementation of any avoidance, minimization, or mitigation measures. However, construction or development activities during the breeding season could disturb or remove occupied nests of migratory birds or raptors and could require the implementation of a pre-construction survey within 500 feet of the disturbance area within the woodland areas for nesting migratory birds and raptors prior to development (refer to Figure 4.3-6 which shows woodland portions of the site).

Townsend's big-ear bat, pallid bat, and long-eared myotis

Townsend's big-eared bat is a California Species of Special Concern (SSC) and Species of Greatest Conservation Need (SGCN) and is the subject of a petition to list it as threatened or endangered under the California Endangered Species Act. Pallid bat is a Species of Special Concern. Long-eared myotis has a Federal listing of Endangered due to declining population, particularly from white-nose syndrome.

These bats species have the potential to roost within the abandoned structures and woodlands within the project area. Although these species have not been documented previously within or directly adjacent to the project area, they have a moderate potential to occur within the woodlands of the project area and could be impacted by tree removal activities without adequate protections in place.

Therefore, project-related impacts could occur if disturbance and construction are implemented within or adjacent to the suitable habitat for the purple martin, Townsend's big-eared bat, pallid bat, and long-eared myotis. Recommended mitigation to be implemented for these species is provided in Mitigation Measures 4.3-1-4.3-3.

Nesting raptors and other migratory bird species

There is a low to moderate potential for nesting raptors and other nesting migratory bird species protected under the MBTA to occur within the proposed areas of disturbance primarily within the woodland areas of the project. The proposed areas of disturbance within the woodland areas of the project site represents degraded potential habitat for bird species protected under the MBTA, such as tree nesting species (raptors) and ground nesting species like the spotted towhee (*Pipilo maculatus*) and dark-eyed junco (*Junco hyemalis*).

Active and inactive nests within and adjacent to the project area were not identified during site visits and field surveys conducted in June 2024 and May 2025. However, this does not preclude the potential of such species from actively nesting within the project area,

particularly within the woodland areas of the project site. If development within the woodland areas of the project site occurs during the nesting season for raptors and ground nesting MBTA protected birds (February 1 through August 31), a pre-construction survey must be conducted to prevent a risk to nest abandonment prior to the fledging of young from such nests. This would ensure that the Project would have a less than significant impact on any nesting bird species.

General Plan Evaluation

The Clearlake General Plan includes Objective CO 4.1 and Policy CO 4.1.1 to protect state and federally listed endangered and threatened species. Objective CO 4.2 seeks to prevent conversion of wildlife habitat into other land uses. The General Plan EIR found that with implementation of these objectives and policies as well as compliance with state and federal laws regarding natural resources, build-out of the City under the General Plan, including development of the project site as a regional commercial center, would be less than significant. The General Plan EIR also acknowledges that each project must be individually evaluated for impacts to biological resources given that further surveys and assessments at the time of development may be necessary to confirm presence or absence of species at specific development sites. The project site does not contain valuable habitat that would be converted since it is highly disturbed with mostly ruderal vegetation and is an infill development.

Conclusion

Mitigation Measures 4.3-1 through 4.3-3 would provide compliance with state and federal laws to ensure that special-status species are protected during Project development. The Project is therefore consistent with the General Plan EIR, and implementation of mitigation shown below would result in impacts that are ***less than significant with mitigation***.

Mitigation Measures

Implementation of the following mitigation measures would reduce impacts to special-status species.

Mitigation Measure 4.3-1: Conduct pre-construction surveys for western burrowing owl. Prior to any earth disturbance and prior to the issuance of any grading permits within areas on the site determined to have potential marginal habitat for the Burrowing Owl (see Figure 4.3-8 Burrowing Owl Marginal Habitat Map) , a California Department of Fish and Wildlife (CDFW)-approved biologist shall conduct pre-construction (i.e., take avoidance) surveys for western burrowing owl. The survey shall include two site visits: one within 14 days of construction start, and one within 48 hours of construction start. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines, which include the following:

- Within the project area where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint, as accessible, to identify burrows and owls.
- Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped.
- During the breeding season (February 1 – August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas.
- During the nonbreeding season (September 1 – January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area.
- If burrowing owl is detected on-site during preconstruction surveys or during construction, no ground-disturbing activities within a minimum 200-meter (approximately 656-foot) avoidance buffer shall occur around occupied burrows during the breeding season (February 1–August 31), unless authorized by the California Department of Fish and Wildlife. During the non-breeding season (September 1–January 31), no ground-disturbing activities within a minimum 50-meter (approximately 164-foot) avoidance buffer shall occur around occupied burrows, unless authorized by CDFW.
- If occupied burrow avoidance is infeasible during the non-breeding season or during the breeding season where resident owls have not yet begun egg-laying or incubation, or where the juveniles are foraging independently and capable of independent survival, CDFW shall be consulted to develop a Burrowing Owl Exclusion and Mitigation Plan. The plan shall differentiate strategies for active burrows found on the project site vs. active burrows found adjacent to the project site. For example, an Exclusion and Mitigation Plan strategy may include:
  - Passive exclusion of burrowing owl from burrows within the project site using one-way doors.
  - Excavation of potential burrowing owl burrows within the project site that are confirmed to be empty of burrowing owl adults and/or young.
  - Creation of artificial burrowing owl burrows within the project site to offset the loss of known occupied burrowing owl burrows.
  - Acquisition of burrowing owl conservation lands and/or bank credits.

Mitigation Measure 4.3-2: Conduct pre-construction nesting surveys for migrating birds and raptors. This mitigation measure shall be placed as a note on all construction plans for woodland areas referenced on Figure 4.3-6, Woodland Areas of the Project Area and shall be implemented as follows:

Development activities that occur during the breeding season could disturb or remove occupied nests of migratory birds or raptors, which could occur in any structures or vegetation on the site, including but not limited to grasses, shrubs, and trees. If construction activities take place from September 2 through February 14 (outside the typical bird breeding/nesting season for the area), no further mitigation is required. If construction activities take place during the typical bird breeding/nesting season for the area (February

15 through September 1), then no more than seven days prior to initiation of construction, pre-construction nesting bird surveys at the project site shall be conducted by a qualified biologist and would be based on habitat type, habitat quality, and type of disturbance proposed within or adjacent to nesting habitat, but would be a minimum of 500 feet from any area of disturbance. If work stops for more than seven days during any part of the construction process, an additional pre-construction survey shall be required to meet these parameters within seven days of the onset of additional work. If any nesting raptors or protected birds are identified during such pre-construction surveys, trees, shrubs or grasslands with active nests should not be removed or disturbed and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a qualified wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

Mitigation Measure 4.3-3: Conduct pre-construction surveys for special-status bats. Prior to removal of any abandoned structure or trees within the project area and prior to the issuance of any demolition permit or tree removal permit, a pre-construction bat roosting survey prepared by a California Department of Fish and Wildlife (CDFW)-approved biologist shall be conducted to identify the presence or absence of roosting bats within any structures and within any woodlands. If any Townsend's big-eared bats, pallid bats, or long-eared myotis (or any other species of bat) are identified during roosting surveys, passive removal the roosting bats prior to disturbance to such structures or removal of trees associated with the woodland where the bats are roosting shall be implemented to avoid impacts to any bat species. Passive removal includes allowing roosting bats to freely leave the roost site (and structure). Once the roosting bats have been passively removed from the structure(s), the structure(s) would be closed off from recurring bat roosting, if possible, within the structure, and the proposed work within the structure(s) would no longer pose a risk to individuals of the species. Pre-construction roosting bat surveys are recommended to be implemented within 7 days of the removal of trees associated within the woodlands in the northern or southern sections of the project area and prior to any disturbance within any existing structure.

4.3-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (*Less than Significant with Mitigation*)

The disturbance areas within the project area do not contain any jurisdictional wetlands or "waters of the U.S.," and the small intermittent or ephemeral drainage areas within the project area are not likely to meet the updated Corps criteria for being regulated under the

CWA according to the project biologist for the EIR. The 2023 Updated Water of the United States (WOTUS) Rule reversed the 2020 ruling such that only perennial aquatic resources with documented connections to navigable waterways are currently regulated under the CWA. Therefore, the project area does not contain any "waters of the U.S." including wetlands, given the lack of perennial streams and wetlands with a direct connection to a navigable waterway, and no permitting under Section 404 or 401 of the CWA is required as part of the development of the Proposed Project.

However, CDFW could regulate the ephemeral and intermittent drainage areas within the project area. The drainages do not contain any riparian or wetland associated vegetation and are not part of a floodplain, so the CDFW-regulated stream zone would be the bed and bank of each drainage only. Therefore, at a minimum, a Lake or Streambed Alteration Agreement (LSA) with CDFW will be needed if the Proposed Project would encroach upon the two drainage areas within the overall project site.

Given the project site contains two intermittent and ephemeral drainage areas as shown in Figure 4.3-2, an LSA with CDFW will be needed for any impacts to the Class II and Class III drainages within the northwestern and southern section of the project area respectively. With the LSA, the Project would be in compliance for potential disturbances within surface water within the project area.

General Plan Evaluation

The Clearlake General Plan includes Policies CO 4.1.2 and 4.1.3 to protect riparian corridors and other sensitive habitats. Objective CO 4.2 seeks to prevent conversion of wildlife habitat to other land uses. The General Plan EIR found that with implementation of these objectives and policies, as well as compliance with state and federal laws regarding sensitive habitats and riparian corridors, build-out of the City under the General Plan, including build-out of the project site as a regional commercial center, would be less than significant.

The General Plan EIR also indicates that Clearlake has low levels of sensitive habitats because wetland habitats near the lake are already urbanized. The project site includes two drainages that do not contain riparian habitat, and overall, the site is highly disturbed with mostly ruderal vegetation.

Conclusion

Mitigation Measure 4.3-4 would provide protections to the drainages during Project development, ensuring consistency with the General Plan EIR and resulting in impacts that are ***less significant with mitigation***.

Mitigation Measure

Implementation of the following mitigation measure would reduce impacts to drainage features.

Mitigation Measure 4.3-4: Obtain a Lake or Streambed Alteration Agreement if needed. Prior to any disturbance of the identified defined drainages on the project site, a Lake or Streambed Alteration Agreement Application shall be entered into with California Department of Fish and Wildlife (CDFW) for their determination as to whether a permit would be required for the crossing. If the developer is not the City, the Project developer shall provide evidence of compliance with this measure to the City Planning Department prior to the issuance of any grading or improvement permits for the site. This mitigation measure shall be placed as a note on all construction plans.

4.3-3 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (*Less than Significant with Mitigation*)

Given the large areas of open space within and adjacent to the project area, any resident or migratory species that would use the project area as a wildlife corridor or nursery site would be able to move through and in/out of the project area with minimal disturbance. Impacts to migratory birds are described under Impact Discussion section 4.3-1 above.

General Plan Evaluation

The Clearlake General Plan includes Policy CO 4.1.3 to protect riparian corridors which are used for migration, and Policy CO 4.2.1 promotes conservation of open space for connecting wildlife corridors.

The General Plan EIR found that with implementation of these objectives and policies as well as compliance with state and federal laws regarding wildlife migration, buildout of the City under the General Plan, including buildout of the project site as a regional commercial center, would be less than significant. The General Plan EIR also indicates that the City's urbanized environment, vehicular infrastructure, and human and pet presence, reduces opportunities for wildlife movement in the urbanized portion of the city. CDFW map data provided in the General Plan EIR shows that Clearlake has zero habitat that is essential to connectivity for statewide wildlife migration. The project site is not an identified wildlife corridor other than possible use as a corridor for migratory birds.

Conclusion

Mitigation Measure 4.3-2 provides protections for migrating birds, ensuring consistency with the General Plan EIR and, therefore, the Proposed Project's impacts that are ***less significant with mitigation***.

Mitigation Measure
See Mitigation Measure 4.3-2.

4.3-4 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (*Less than Significant*)

The project site contains 1.75 acres of oak woodland within the northern section of the project area and 1.9 acres of oak woodland within the southern section of the project area, for a total of 3.65 acres of oak woodland within the project area, as well as 108 individual trees qualifying for protection outside of the woodland areas. As shown in Figure 4.3-1, most of the protected trees within the project site are expected to be removed or damaged due to the proposed construction envelopes and associated project-related activities, except for a portion of the 1.75-acre oak grove in the northern area that would be preserved under the Preferred Site Plan.

Per the City of Clearlake's Native Tree Protection Ordinance in Chapter 18, Section 40 of the City of Clearlake Municipal Code, any activity that might cause harm to a protected tree is strictly prohibited within the root protection zone (RPZ) of that tree.

The City of Clearlake Municipal Code requires a Tree Protection Plan and Tree Removal Permit prior to granting grading or building permits for work that consists of either 1) completely removing a protected tree or 2) any grading or construction related activities will encroach within the dripline of a protected tree. For protected trees under the City of Clearlake Municipal Code and Tree Preservation Policy, a site-specific tree inventory based on the final site plan covering any area of the Proposed Project would be required. The City of Clearlake provides options for tree replacement, including on-site replacement of trees and/or off-site replacement of trees on other property owned by the project applicant or on public property in locations to be determined by the City. Where replacement trees cannot be reasonably accommodated on site, the trees must be planted at a higher ratio off-site. Based on the City's requirements, for each protected tree removed, two replacement trees must be planted for the first six inches DBH of tree removed, as well as one tree for each additional inch of DBH of the protected tree felled. Replacement trees are required to be of the same species type as that of the removed tree and must be a minimum five-gallon sapling size. Based on the number of individual protected trees on the project site, at least 216 additional oak trees would need to be replanted if all individual oak trees (108) are removed with the Project, and this number could be significantly higher depending on the diameter at breast height of individual trees at the time of their removal.

Compliance with the City's Native Tree Protection regulations will ensure tree protection through project build-out.

General Plan Evaluation

The Clearlake General Plan includes Objective CO 4.3 and Policy CO 4.3.1 which support the preservation and planting of native vegetation. The General Plan EIR found that with implementation of this objective and policy as well as several others related to low impact development, there would be no conflicts with local plans and policies with build-out of

the City under the General Plan. In addition, the City's tree preservation ordinance would be applied to the Project.

Conclusion

Compliance with the City's Native Tree Protection regulations will ensure no impacts to trees. Project would be consistent with the General Plan and General Plan EIR, and impacts would be ***less than significant***.

Mitigation Measure
None required

4.3-5 Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan (*No Impact*)

The Project would not conflict with any provision of an adopted HCP, NCCP, or other approved governmental habitat conservation plan given no such plan covers the project area.

General Plan Evaluation

The Clearlake General Plan EIR indicates that there was no adopted HCP for the area at the time of the General Plan EIR. However, impacts related to conflicts with the Clear Lake Integrated Watershed Management Plan and the Clear Lake Integrated Aquatic Plant Management Plan were considered. The Clear Lake Integrated Watershed Management Plan identifies opportunities to improve watershed conditions and provides guidance for continuing watershed planning efforts, such as public education and outreach and preservation of shoreline habitat. The Clear Lake Integrated Aquatic Plant Management Plan addresses the aquatic ecosystem in Clear Lake. The City of Clearlake's 2040 General Plan Update's policies and programs are consistent with these plans, and the Project does not impact shoreline habitat.

Conclusion

The Proposed Project would have no conflict with any habitat or natural community conservation plan at the local, state, or federal level, and ***no impact*** would occur.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

4.3-6 Cumulative loss of biological resources and the effects of ongoing urbanization in the region (*Less than Significant with Mitigation*)

Other proposed and pending projects in the region under the cumulative context would include build-out of the City's General Plan, as well as development of the most recent planned land uses within the vicinity of the project area. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail.

The City of Clearlake, like other cities and communities in the region, is experiencing urban growth. Some developments have already been approved or planned in the surrounding areas. Cumulatively, these projects would reduce common and special-status plant and wildlife habitats.

With implementation of Mitigation Measures 4.3-1 through 4.3-3 included in this chapter, special-status plant and animal species, as well as protected migratory bird species would be protected. Mitigation Measure 4.3-4 would ensure that any impacts to aquatic habitat would be mitigated. Thus, all of the Proposed Project's potential impacts related to biological resources would be reduced to less-than-significant levels with implementation of the project-specific mitigation measures included in this EIR.

With observance of applicable federal, state, and local regulations and implementation of Project-specific mitigation measures for individual development projects, cumulative impacts to biological resources would be less than significant. Because the Proposed Project would comply with federal, state, and local regulations related to biological resources and the Project would be required to implement the mitigation measures included in this EIR, the Project's incremental contribution to the cumulative biological impact related to increasing urbanization would be ***less than significant with mitigation***.

General Plan Evaluation

The Clearlake General Plan EIR indicates that although the General Plan proposes development in an urban environment, construction within the build-out area may impact biological resources through noise, dust, or other disturbances, and cumulatively, the Plan has the potential of causing significant impact on biological resources because of the City's close proximity to key natural resources, such as Clear Lake and the Anderson Marsh State Historic Park. The Proposed Project would not impact either of these key natural resources, and the project site is highly disturbed and of poor habitat value. Furthermore, the General Plan EIR indicates that buildout of the General Plan would not include any additional development in open space or agricultural areas, and policies and programs included in the General Plan, as well as the CEQA process for site-specific development projects, would promote context-sensitive development and minimize impacts on natural resources.

Conclusion

With observance of applicable federal, state, and local regulations and implementation of Project-specific mitigation measures, the Proposed Project would result in cumulative impacts on biological resources that are ***less than significant with mitigation***.

Mitigation Measures

See Mitigation Measures 4.3-1 through 4.3-4.

Figure 4.3-1 Habitats on the Project Site

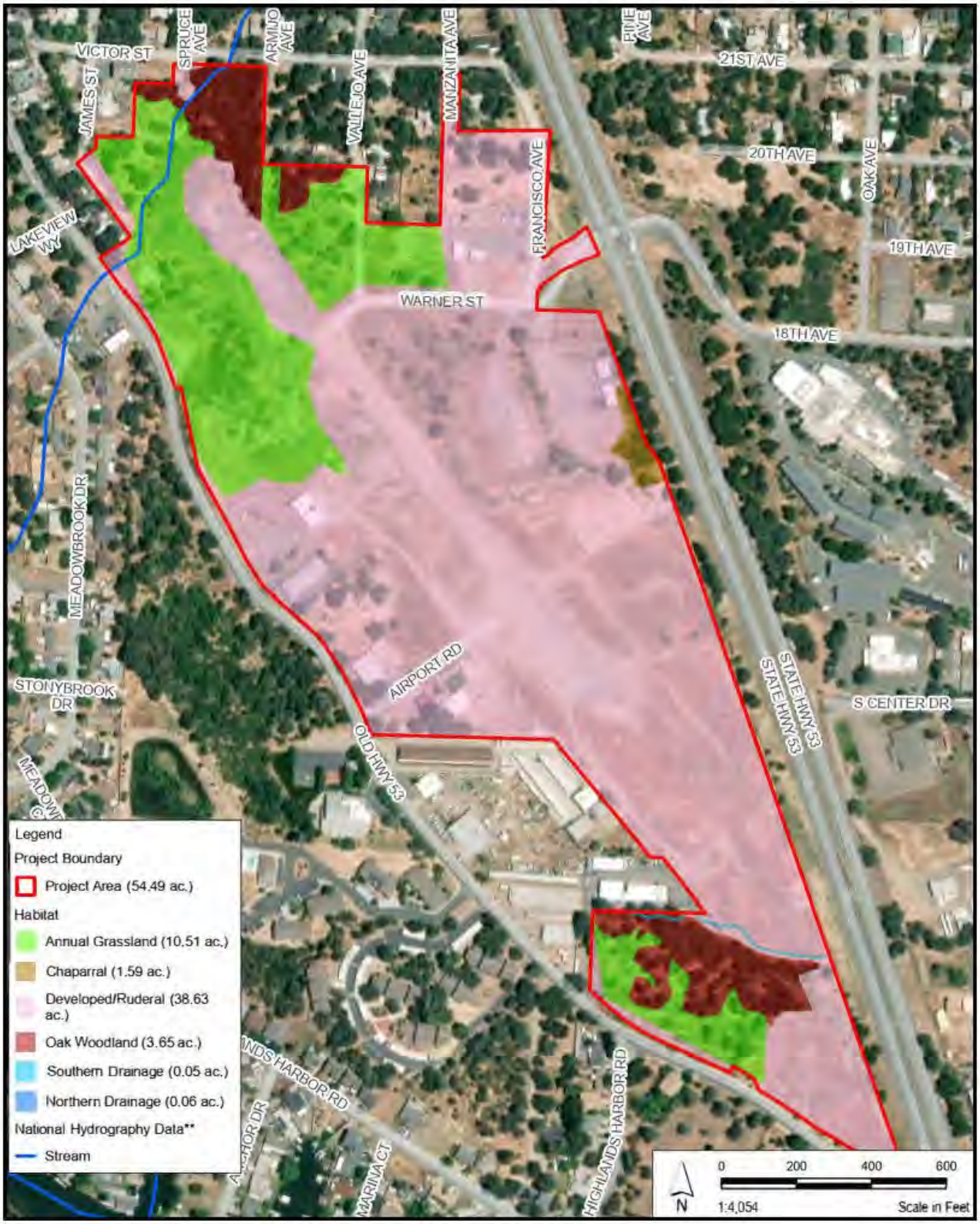


Figure 4.3-2 Ephemeral Drainage Locations



Figure 4.3-3 Northern Ephemeral Drainage Photos



Photo 1 - Ephemeral drainage crossing through the northwestern section of the Project area. No riparian vegetation present.



Photo 2 - Ephemeral drainage entering the northern end of the Project area through a culvert under Victor Street. Note culvert in disrepair. This photo also shows oak woodland in northern area, dominated by interior live oak.

Figure 4.3-4 Southern Ephemeral Drainage Photos



Photo 1 - Southern ephemeral drainage entering the Project area through the culvert under State Route 53. Drainage lined with disturbed ruderal vegetation.



Photo 2 - Southern ephemeral drainage looking northwest from where it enters the Project area. Dominated by non-native annual grassland and ruderal vegetation. This photo also shows oak woodland in southern area.

Figure 4.3-5 CNDDB and Critical Habitat Map

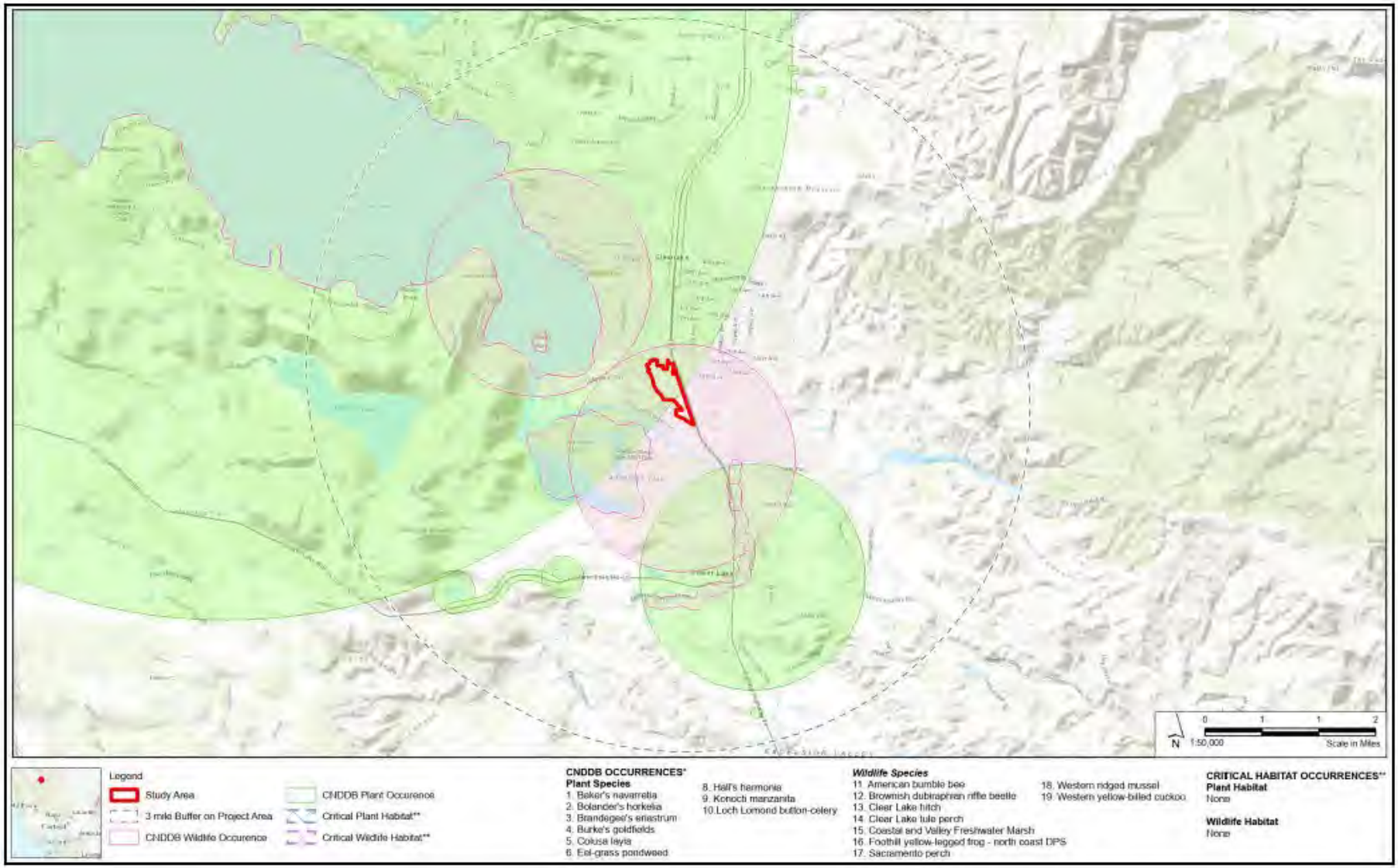


Figure 4.3-6 Locations of Inventoried Oak Woodlands and Protected Trees



Photo - Aerial photo depicting the project area with survey areas for sensitive bird and bat species, largely corresponding to the distribution of oak woodland and oak trees.

Figure 4.3-7 Photos of Oak Woodlands



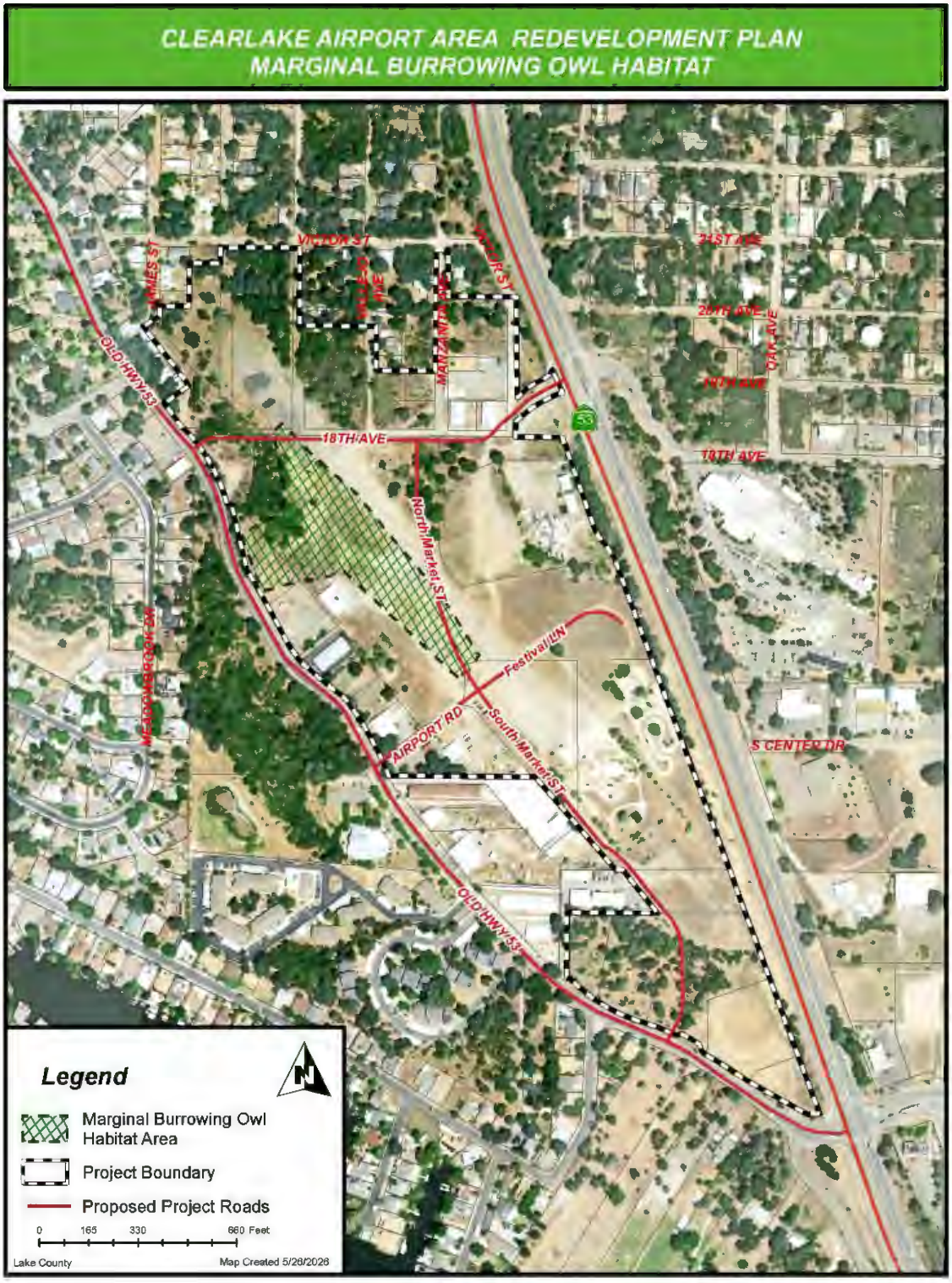
Photo 1 - Oak woodland within the southwestern section of the Project area. Dominated by blue oak, interior live oak and foothill pine trees.



Photo 2 - Oak woodland within the northern section of the Project area in the vicinity of the proposed hotel development parcel. Dominated by interior live oak and foothill pine.

Figure 4.3-8, Burrowing Owl Marginal Habitat Area

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4.4 CULTURAL RESOURCES

4.4.1 Introduction

The purpose of this chapter is to provide a discussion of the archaeological background, ethnographic overview, historic overview, known cultural resources in the region, the regulatory setting, an impact analysis, and mitigation measures. Chapter 4.14 of this EIR consists of a separate evaluation of tribal cultural resources that will be referenced throughout this section. The cultural resource aspects of this section is primarily based upon the cultural investigation and reports prepared for the project (confidential; on file at the City offices). The cultural resources assessments used for this document are:

1. Cultural Resource Investigation of the Proposed Airport Commercial Center Property, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, April 2026
2. Cultural Resource Inspection of the Former Airport Materials Storage Yard, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, August 2024
3. Cultural Resource Investigation of the 2.8-Acre Airport Parcel APN 04212125 and the 3.47-Acre Proposed 18th Avenue Extension, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, August 2022
4. Peer Review of Cultural Resources Reports for the Airport Retail Commercial Center and 18th Avenue Extension Project, City of Clearlake, Lake County, California, by ECORP Consulting, Inc., May 2026

The investigations completed by Sub-Terra Heritage Resource Investigations are collectively referred to as the cultural assessments. The peer review completed by ECORP Consulting, Inc. is hereinafter referred to as the peer review assessment.

Under existing law, environmental documents must not include information about the location of archaeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (California Code of Regulations Section 15120[d]). Accordingly, confidential information was redacted from Appendix F for purposes of public review. The four complete reports are confidential reports and are on file at the City of Clearlake Community Development Department, available only to consulting tribes and individuals meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology.

4.4.2 Existing Environmental Setting

The Project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map from the Project Description Chapter). The Project site is bounded by the 18th Avenue extension and Victor

Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 3-2, Project Location Map from the Project Description Chapter).

The cultural assessment reviewed the Area of Potential Effects (APE) for the proposed Project. The APE is defined as the geographic area where project activities may directly or indirectly cause changes in the character or use of historic properties of prehistoric or historic age, if any such properties exist. The APE includes the entire 54-acres of the proposed Project site. The Existing land uses surrounding the APE are as follows:

- North: Single-family residential, as well as a place of worship approximately 200 feet to the northwest.
- South: Single-family residential to the south and southwest and fast food uses to the southeast.
- East: State Route (SR) 53 abuts the site's eastern boundary. Across SR 53 to the east are Adventist health care facilities, a private community center (Masonic Lodge), the Lake County Campus of Woodland Community College, government facilities, and commercial uses, including the Clear Lake Shopping Center and Walmart.
- West: Old Highway 53 abuts most of the western boundary of the Project site. To the west of Old Highway 53 are single- and multi-family residential uses, a park, a high school, and a small market.

Archaeological Context

The archaeology of Clearlake centers on the Clear Lake basin, which holds evidence of human habitation dating back 11,000–12,000 years, making it one of the oldest inhabited regions in California. Key sites, such as the Borax Lake site, highlight a long, continuous Paleo-Indian and Pomo indigenous presence, characterized by obsidian tools, and grinding stones.

Fixed, multi-season settlement began in Clear Lake basin as early as 7,000 years ago, with more intensive settlement after 2,600 years ago. The early residential sites found in traditional Koi Pomo territory likely signaled an unusually early colonization. Extensive production for trade began in traditional Koi Pomo territory by 3,200 years ago, focusing on Borax Lake obsidian but involving other products including marine shell beads, and potentially, early ceramics, bone fishhooks, and basketry, the latter indicated in the archaeological record by finely finished basketry awls and an increasingly varied range of textiles evident in impressed clay artifacts.

Ethnographic Overview

The Project is located within traditional territory of the Koi tribe, southeast of the Elem, and due north of the Middletown Rancheria tribe. For thousands of years, the Pomo Indians lived throughout North-Central California. Before colonization by Europeans, there were some 3,000 Pomo Indians living in the region, speaking one of three distinct languages. A more detailed evaluation of tribal occupation in and around the Project site is presented in Chapter 3-14, regarding tribal cultural resources.

Project Site Historic Development

Since 1956, the Project site has undergone significant development and disturbance with over 96 percent of the site being impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities (see Figure 4.4-1) which provides a summary of site development. Also, see the evolution of site disturbance presented in the Project Description Section of this EIR, Chapter 3 which presents the historic pattern of site disturbance from 1956 to present.

Section 1.01 Methods

Records Search Methods

The Northwest Information Center (NWIC) completed a records search for the Project site in March 2022. The review included consulting the National Register of Historic Places for Lake County, California Points of Historic Interest for Lake County, California Historical Landmarks Registry for Lake County, and the Directory of Historic Properties Data File for Lake County within a 0.5-mile radius around the Project site. The review also included a review of published and unpublished records of archaeological investigations, ethnographic studies, and historical documents, land patent records, aerial photographs, historical plat maps, and topographic maps.

Archaeological Survey Methods

To describe the Project site's setting and to obtain an understanding of the presence of cultural and tribal cultural resources, the cultural assessment included an extensive review of archaeological records in the area and an on-site survey consisting of an intensive pedestrian walk at 1 to 3 meter intervals, surface or trowel exploration at intervals throughout the Project site. This survey was conducted in coordination with Koi Nation monitors to observe survey site disturbances. After completion of the report, ECORP completed a peer review assessment to verify accuracy.

Archaeological Testing Methods

Sub-Terra Heritage Resource Investigations completed sub-surface testing throughout much of the Project site. The sub-surface testing was completed via trenching using a backhoe. The trenches were excavated in areas associated with the "disturbed, mostly leveled lands of the former airstrip and adjoining building pads. This approach was used to determine the extent of cut and fill of the disturbed areas, if undisturbed deposits were present beneath the fill and to determine if geological and/or culturally modified obsidian observed in the disturbed lands were or were not exclusively associated with imported fill deposits."

Section 1.02 Results

Records Search Results

The records search review completed by the NWIC identified three "Conditional Resources" within the Project site. All three resources were identified and recorded by Donald Branscomb, a

local amateur. All three "conditional resources" were identified as obsidian scatters. The three "conditional resources" were noted as subject to field verification, due to plotting errors compounded through time.

As a result of the records search review, the Project site encompasses the footprint of the former Pearce Airport. Five structures and two buildings are present within the Project site. One building, the County of Lake steel shop and storage, meets the 50-year age threshold to be considered a cultural resource. The building was built between 1967 and 1968. Disturbances to the land within the Project site include construction of the initial airport and runway, improvements to the airport, construction of a large County of Lake corporation yard and later expansion, as well as construction for the 18th Avenue extension. As a result of the review of maps and aerial photographs, it was determined that fill used for the previous construction remained in the Project site.

Archaeological Survey Results

Sub-Terra Heritage Resource Investigations surveyed the northern portion of the Project site on July 1, 2022, and the remainder in February 2023 and March 2025. The survey resulted in the identification of widespread geological and culturally modified obsidian throughout the Project site. The survey also resulted in the identification of a pre-contact resource (ACD-CR-01) that partially overlaps a small portion of the Project site. The pedestrian survey noted three historic-era isolate artifacts, including a ceramic fragment and cans.

Archaeological Testing Results

Sub-Terra Heritage Resource Investigations completed subsurface testing in August 2025. The trenches were located in the central and southern portion of the Project site which correspond to areas of previous disturbance. A total of 56 backhoe trenches were completed. As a result of the testing, seven discreet time periods of development were identified and the resulting soils piles correspond to those development phases. The soils left from each phase of construction match a specific pattern of soil deposition and have a distinct "package of foreign fills".

4.4.3 Regulatory Context

Federal

National Historic Preservation Act

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and local levels.

To qualify for significance in the National Register, resources must possess integrity of location, design, setting, materials, workmanship, feeling and association, in addition to any of the following:

- Be associated with events that made a significant contribution to the broad patterns of American history; or
- Be associated with lives of significant persons in or past; or
- Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity; or
- Have yielded or may yield, information important in history and prehistory.

Resources less than 50 years old are not considered eligible with the exception of those resources that have achieved significance of exceptional importance. The California Environmental Quality Act (CEQA) requires the evaluation of projects, which affect properties that are listed in the National Register.

Section 106 NHPA

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the NHPA until shown to be not significant. Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800) note that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archaeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: It is associated with the lives of persons significant in our past; or
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or

other administrative actions issued or overseen by a Federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. Section 106 requires the federal lead agency to take into account the effects of a federal undertaking on historic properties and make reasonable effort to avoid, reduce, or resolve adverse effects to them in advance.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 CFR 67.

Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

State

California Environmental Quality Act

CEQA requires a lead agency, in this case the City of Clearlake, to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]). A resource shall be considered historically significant if it:

a. Is associated with events that have made a significant contribution to the broad patterns of
   California's history and cultural heritage;
b. Is associated with the lives of persons important in our past;
c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
d. Has yielded, or may be likely to yield, information important in prehistory or history.

CEQA also requires lead agencies to determine if a proposed project would have a significant effect on unique archaeological resources. If a lead agency determines that an archaeological site

is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083.2 regarding unique archaeological resources.

"Unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

The California Historical Building Code (CHBC)

Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code (CHBC), and subject to the rules and regulations in 24 CCR Part 8, supplies regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or relocation of historical buildings, structures, and properties.

According to the CHBC, a qualified historical building or structure is any structure or collection of structures, and their associated sites deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This includes any structures in existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historic or architecturally significant sites, places, historic districts or landmarks.

California Health and Safety Code

The discovery of human remains is regulated in accordance with California Health and Safety Code Section 7050.5, which states:

> *In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his*

> *or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.*

Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code

Section 622.5 of the Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

California Public Resources Code

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require descendants to be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR.

Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.

Assembly Bill 978

In 2001, AB 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

Assembly Bill 52

AB 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a

tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

A) Included or determined to be eligible for inclusion in the CRHR;
B) Included in a local register of historical resources as defined in PRC Section 5020.1(k).

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe. A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed Projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Local Plans

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, strategies and actions that affect cultural resources. The following strategy regarding cultural resources from the CAP applies to the project:

Strategy 4: Strengthen Habitat Connectivity and Interagency Coordination. Establish comprehensive coordination between agricultural, natural resource, and tribal agencies to identify key habitats and connections and to improve habitat connectivity planning across private and public lands while integrating traditional ecological knowledge into biodiversity conservation efforts.

City of Clearlake 2040 General Plan

The General Plan includes goals and policies to protect resources, including historical, cultural and tribal resources.

The Conservation Element contains the following policies and programs specific to archaeological, paleontological, historic, and tribal resources:

Policy CO 10.1.1
The City shall identify and evaluate cultural resources during the land use planning process pursuant to CEQA and participate in and support efforts by others to identify significant cultural, historical, and archaeological resources using appropriate State and Federal standards.

Program CO 10.1.1.1
The City shall work with California Native American Tribes, as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3, through collaboration with the Sonoma State University Northwest Information Center (SSUNIC) to prepare an archaeological, cultural, and historical resources map and inventory within the City.

Policy CO 10.2.1
The City shall encourage the protection of cultural, historical, and archaeological sites

Program CO 10.2.1.1
The City shall help identify sites of statewide or local significance that have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values for potential for placement on the National Register of Historic Places and/or inclusion in the California Inventory of Historic Resources.

Program CO 10.2.1.2
The City shall update the City's Grading Ordinance to be consistent California Code of Regulations, Title 20, Section 2501 et seq. to ensure protection of cultural resource sites during the grading process

Policy CO 10.2.2
Development on sites of cultural significance shall follow the guidelines outlined in the California Environmental Quality Act (CEQA) Section 21083.2 (b1, b2, b3, b4) and the CEQA Guidelines Section 15126.4c.

Program CO 10.2.2.1
The City shall develop a set of mitigation measures to be used for any project which may impact an identified site of cultural significance

Program CO 10.2.2.2
The City shall enforce procedures to ensure that mitigation measures established for the protection of historical resources are carried out prior to development.

Program CO 10.2.3.2
Use the State Historic Building Code for designated historic properties.

Policy CO 10.2.4
The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

Policy CO 10.2.5
In the event that archaeological/paleontological resources are inadvertently discovered during ground disturbing activities, the City shall require that grading and construction work within 100 feet of the find be suspended until the significance of the resource can be determined by a Registered Professional Archaeologist /Paleontologist as appropriate. The City will require that a Registered Professional Archaeologist/Paleontologist make recommendations for measures necessary to protect the find; or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials as appropriate.

Policy CO 10.2.6
Pursuant to CEQA Guidelines (Section 15064.5), if human remains are discovered during project construction, it is necessary to comply with state laws relating to prohibitions on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (California Health and Safety Code Section 7050.5).

Policy CO 10.2.7
If human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097).

Policy CO 10.2.8
The City shall continue to require "Project Reviews" (archaeological/historical) record searches for all discretionary projects under the California Environmental Quality Act (CEQA) that involves any subsurface soil work. If the record search determines that the project site has the potential to contain archaeological, historical or other cultural resources (per Section 15064.5 of the CEQA Guidelines), an archaeological survey shall be conducted of the project site by a Registered Professional Archaeologist selected by the City. The survey shall include consultation with Native American Indian Tribes for the City of Clearlake (as maintained by the Native American Heritage Commission). The survey shall include a report summarizing findings including any required measures that will mitigate damage to the cultural resource to a level of non-significance. Recommended mitigation measures shall be incorporated into the project to insure potential that impacts are mitigated to a level of non-significance.

Policy CO 10.2.9
The City shall maintain a list of approved Registered Professional Archaeologists for conducting archaeological, cultural or historical resource surveys. This list shall undergo periodic review by California Native American Tribes, as identified by the Native American

Heritage Commission, pursuant to Government Code Section 65352.3, and through collaboration with (SSUNIC). The City will consider concerns presented regarding those on the list and will consult with Tribes in a good faith effort to resolve concerns received regarding the list.

Policy CO 10.2.10
The City shall enter into a memorandum of understanding, memorandum or agreement, or other agreements with the Native American Heritage Commission (SSUNIC) for facilitated record searches for projects that may result in ground disturbance.

Policy CO 10.2.11
The City shall implement provisions of the Memorandum of Understanding (MOU) with the Koi Nation of Northern California, for addressing preservation of cultural resources within the City. The City will consider entering into other similar agreements with other Native American Indian Tribes, as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3.

Policy CO10.2.12
In collaboration with the Koi Nation of Northern California, the City will establish a consultation protocol for project consultation. The City will encourage other American Indian Tribes to consult with the Koi Nation of Northern California to develop consensus in project consultations with the City.

Policy CO 10.2.14
In order to assure compliance with the Native American Graves Protection Act, the City will work with California Native American Tribes as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3 and other groups to the extent reasonably feasible to communicate develop procedures and enforce existing cultural resource protection laws.

Policy CO 10.3.2
The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites and districts.

Program CO 10.3.2.1
The City shall encourage the use of the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

4.4.4 Impacts and Mitigation Measures

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural or tribal cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of dedicated cemeteries.

CEQA Guidelines Section 15064.5 defines substantial adverse change as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired.
CEQA Guidelines Section 15064.5(b)(2) defines materially impaired for purposes of the definition of substantial adverse change as follows:

> The significance of an historical resource is materially impaired when a project:
>
> (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
>
> (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
>
> (C) Demolishes or materially alters in an adverse manner those physical characteristics of a Historical Resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

CEQA requires that if a project would result in an effect that may cause a substantial adverse change in the significance of a historical resource or would cause significant effects on a unique archaeological resource, then alternative plans or mitigation measures must be considered. Therefore, prior to assessing effects or developing mitigation measures, the Lead Agency must determine if a historical resource or unique archaeological resource is present that may be affected

by the project. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources and unique archaeological resources;
- Evaluate the significance of the potential historical resources; and
- Evaluate the effects of the project on eligible (significant) historical resources and unique archaeological resources.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project.

4.4-1 Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section15064.5?

Historical resources are defined in Section 15064.5 of the CEQA Guidelines resources listed in, or eligible for listing in, the CRHR. They also are defined as any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Historical resources, therefore, can be from any time period and take many forms, including archaeological sites, buildings, structures, and landscapes.

The cultural assessments indicate that five structures and two buildings were constructed in the Project site between the years 1959 and 1968; all but one demolished by subsequent development (see Chapter 3, Project Description, Project Site Historic Development section and related Figure 3-14 that shows the evolution of project area disturbance, as well as Figure 4.4-1, Project Area History of Demolished and Extant Buildings and Structures).

Based on historic contexts and the comprehensive background research completed, the Lake County steel workshop is not associated with any significant events (NRHP/CRHR Criterion A/1) or persons (NRHP/CRHR Criterion B/2). Furthermore, the resource does not embody any distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction (NRHP/CRHR Criterion C/3). Finally, simple built-environment resources are expressed in their built form and, therefore, do not possess any information potential outside of the archival record (NRHP/CRHR Criterion D/4).

General Plan Evaluation

The Clearlake General Plan includes Polices CO 10.1.1 and CO 10.2.2 requiring evaluation and protection of historic resources, and Programs CO 10.2.1.1, CO 10.2.2.2, and CO 10.2.3.2 to insure mitigation of impacts on historic resources. The General Plan EIR found that with implementation of these policies and programs for future development, there would be no significant impacts on historic resources. The General Plan includes the Project site for development of a commercial center.

Conclusion

The cultural resources assessments revealed that there is one historical resource within the project area: ACD-CR-01. However, the City of Clearlake plans to avoid the resource. Excavation and trenching during project construction, however, could encounter previously unknown buried historical resources. If encountered, project activity could result in a substantial adverse change in the significance of a historical resource. Procedures to identity, evaluate, and treat any discoveries would ensure that historical resources, if encountered, are treated in accordance with state law. Implementation of these enforceable mitigation measures is sufficient to reduce impacts to historical resources to less than significant with mitigation.

Mitigation Measure(s)

Mitigation Measure 4.4-1: During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of the discovery. Significant historical cultural materials may include finds from the late 19th and early 20th centuries including structural remains, refuse deposits, isolated artifacts, etc. The cultural resources consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation

may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.

4.4-2 The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

The cultural assessment indicates that over 96 percent of the Project site has been impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. Consequently, there is low risk of finding significant archaeological resources on the Project site during construction. However, a small portion of the Project site includes a pre-contact site that spans the boundary and is partially located outside the Project site. This pre-contact area is assumed to be eligible for listing on the National and California Register of Historic Resources. However, a small portion of the site includes a pre-contact site partially located on, and adjacent to, the project site.

General Plan Evaluation

The Clearlake General Plan includes policies and programs regarding protection of archaeological resources, and to insure mitigation of impacts on archaeological resources. The General Plan EIR found that with implementation of these policies and programs for future development, there would be no significant impacts on archaeological resources. The General Plan includes the Project site for development of a commercial center.

Conclusion

The cultural resources assessments revealed that there is one archaeological resource within the project area: ACD-CR-01. However, the City of Clearlake plans to avoid the resource. Excavation and trenching during project construction, however, could encounter previously unknown buried historical resources. If encountered, project activity could result in a substantial adverse change in the significance of an archaeological resource. Procedures to identity, evaluate, and treat any discoveries would ensure that archaeological resources, if encountered, are treated in accordance with state law. Implementation of these enforceable mitigation measures is sufficient to reduce impacts to archaeological resources to less than significant with mitigation.

Mitigation Measure(s)

Implementation of Mitigation Measures 4.4-1 and 4.4-2 and 4.4-3, below, would reduce impacts to archaeological resources to a level of less than significant. Please refer to Chapter 4-14, Tribal Resources and Mitigation Measures 4.14-1 through 4.14-3 for details regarding mitigation of tribal resources.

Mitigation Measure 4.4-2: The City Community Development Department (Planning and Building Divisions) shall ensure that a contractor awareness training program is

delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about:

A. Federal and state regulations pertaining to cultural resources and tribal cultural resources.
B. The subsurface indicators of resources that shall require a work stoppage; procedures for notifying the City of any occurrences.
C. Project-specific requirements and mitigation measures.
D. Enforcement of penalties and repercussions for non-compliance with the program.

The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. The training will be completed once, prior to the start of all ground disturbing activities. All personnel who receive the training shall be required to sign a training roster. The Construction Manager shall provide a copy of the signed training roster to the City as proof of compliance.

4.4-3 The proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries.

The cultural assessment indicates that over 96 percent of the Project site has been impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. Consequently, there is low risk of the project disturbing human remains. There are no known cemeteries or human remains located on the Project site. Although there is a low risk of encountering human remains within the Project Area, mitigation measure 4.4-3 ensures that if remains are encountered state law and appropriate procedures are followed.

General Plan Evaluation

The Clearlake General Plan includes policies and programs regarding protecting human remains protection and provides mitigation of disturbance to human remains. The General Plan EIR found that with implementation of these policies for future development, there would be no significant impacts on disturbance of human remains. The General Plan includes the Project site for development of a commercial center.

Conclusion

Development on the project site could result in disturbance to previously undiscovered human remains. Mitigation Measure 4.4-3 addresses the potential incident if human remains are encountered during project development. Mitigation Measure 4.4-3 ensures impacts from the disturbance of human remains are reduced to a level that is less than significant.

Mitigation Measure(s)

Mitigation Measure 4.4-3: If human remains are encountered, no further disturbance shall occur within 150 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains and associated cultural items shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Remains and associated cultural items shall be covered and protected from the elements, and no unauthorized individual may photograph remains or associated cultural items. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)" (MLD). The landowner shall engage in consultations with the MLD. The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner does not agree with the recommendations of the MLD, then the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Cumulative Impacts and Mitigation Measures

4.4-5 Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and archaeological resources and/or human remains in archaeological contexts.

The cumulative context for cultural resources includes a rich history of Native American activity in Lake County. The Cultural Resources Assessments indicate that over 96 percent of the Project site has been impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. Only 10 small patches of unaltered landscape less than 4 percent, of the Project site remain undisturbed.

The cultural assessment indicates that over 96 percent of the Project site has been impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. Consequently, there is low risk of finding significant cultural resources on the site over 96 percent of the Project Site. However, a small portion of the site includes a pre-contact site partially located on, and adjacent to, the project site. This pre-contact area

is assumed to be eligible for listing on the National and California Register of Historic Resources. If the project were to be developed as contemplated by the project site plan, there could be impacts to intact subsurface deposits of cultural resources during construction. As noted in Mitigation Measures 4.4-1 through 4.4-3, any discovery of potential resources will be evaluated and proper measures to avoid significant impacts to cultural resources. Also, Mitigation Measures 4.14-1 through 4.14-5, in Chapter 14 of this EIR chapter would also reduce potential impacts to cultural resources to a level that is less than significant.

The cultural resources assessments indicated that there is a potential for ground disturbing activities to impact previously undocumented historical and archaeological resources. With the implementation of mitigation measures, potential impacts to these resources would be reduced to a less than significant level. Cumulative impacts would also be less than significant with these mitigation measures. It is anticipated that similar mitigation measures would be implemented for projects in surrounding jurisdictions that may affect cultural resources.

General Plan Evaluation

The Clearlake General Plan includes a number of policies and programs regarding protecting cultural resources. The General Plan, which identifies the Project site for development of a future shopping center and acknowledges that there could be potential impacts on cultural resources from future development. However, the proposed mitigation measures would be consistent with the General Plan's policies and programs to protect these resources.

Conclusion

Implementation of the Mitigation Measure 4.4-1 and 4.4-3 would reduce impacts to cultural resources and human remains to a level of less than significant.

Mitigation Measure(s)

Implementation of Mitigation Measures 4.4-1 and 4.4-3 would reduce impacts to cultural resources and human remains to a level of less than significant

Figure 4.4-1: Project Site History of Demolished and Extant Buildings and Structures

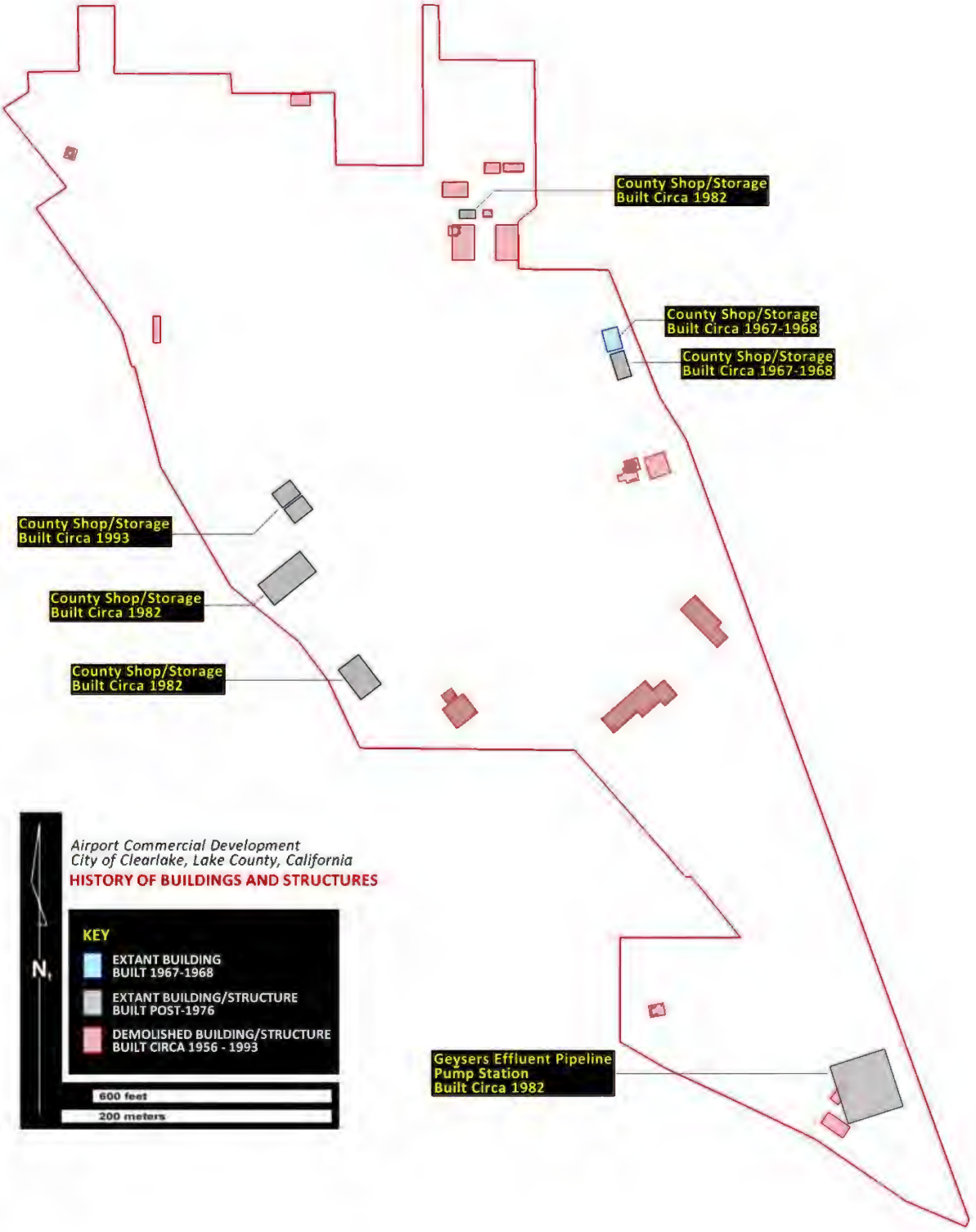


Figure 4.4-2: County of Lake Shop-Storage Building - Built 1967–1968



Photo 1 - County of Lake Shop-Storage Building - constructed circa 1967-1968; viewed from the west, looking east.



Photo 2 - County of Lake Shop-Storage Building; viewed from the southwest, looking northeast.

4.5 GEOLOGY AND SOILS

4.5.1 Introduction

This chapter describes the geologic and soil characteristics of the project site and evaluates the extent to which implementation of the Project could be affected by geologic and seismic hazards such as unstable or expansive soils, ground shaking, liquefaction, and loss of topsoil. This chapter also describes paleontological characteristics to the project site and evaluates the project's potential impacts to these resources.

During the NOP comment period for the EIR, no comments regarding this topic were received.

4.5.2 Existing Environmental Setting

The 54-acre project site was previously developed with the Pearce Airport (now closed). The site is relatively flat to gently rolling terrain situated at an elevational range of approximately 1,350 to 1,415 feet above mean sea level (MSL) in the Inner North Coast Ranges District of the California floristic province. The project site slopes generally toward the west at varying slopes ranging up to about 2:1. The site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 4.5-1, Project Location Map).

Geologic Setting

The project site is located on the eastern side of the Coast Ranges geomorphic province of California. Geomorphic provinces are naturally defined geologic regions that are characterized by a distinct landscape or landform. The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Santa Barbara County in the south. The Coast Ranges are northwest-trending mountain ranges and valleys. Elevations in the mountains extend from 2,000 to 6,000 feet above MSL. The Coast Ranges are composed primarily of Mesozoic and Cenozoic sedimentary strata. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by ridges and valleys comprised primarily of Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. Mount Konocti, the largest volcanic feature of the Clear Lake volcanic fields, is located approximately eight miles northeast of the Project site. The Coast Ranges run parallel and overlap the San Andreas Fault in some areas (see Figure 4.5-2, Topographic Map of the Project Site).

Seismicity and Fault Zones

Seismic hazards include both rupture (surface and subsurface) along active faults and ground shaking, which can occur over wider areas. Ground shaking, produced by various tectonic phenomena, is the principal source of seismic hazards in areas devoid of active faults. All areas of the State are subject to some level of seismic ground shaking.

The Northern California region contains numerous active earthquake faults. An active fault is defined by the California Geologic Survey as one that has had surface displacement within Holocene time (about the last 11,700 years). The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site. Although fault rupture is not anticipated, an earthquake in the region could generate ground shaking at the site. The Coast Ranges are considered a seismically active area of California. Ground shaking could result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion.

While there are no major faults within the City, there are several quaternary faults with the City's boundaries. A quaternary fault is a specific type of fault that has shown evidence of movement within the Quaternary period, which spans the last 2.6 million years up to the present. These faults are important in seismic hazard assessments because they indicate geological activity that is relatively recent in terms of Earth's history, suggesting a higher likelihood of future seismic activity compared to older, inactive faults. The City is in a geologically complex region shaped by faulting, lacustrine (lake-related) deposition, and volcanism. The bedrock substrate of the area is dominated primarily by semi-consolidated sandstone and volcanic andesite. Much of the City of Clearlake is built upon Pleistocene sandstone, gravel, and shale. This material is characterized by the California Geological Survey as mostly loosely consolidated. Along the shore of Clear Lake, the substrate consists of unconsolidated or semi-consolidated alluvium. Quaternary volcanic andesite from past lava flows originating from Mt. Konocti is also present.[1]

Clearlake seismic activity within the past two hundred years has shown absence of any major or damaging earthquake occurring on identified fault lines within Lake County. According to the City's 2019 Local Hazard Mitigation Plan, it is likely that Clearlake will be subject to minor earthquakes in the future. Major earthquakes are less likely to occur or affect the City.

No known active faults are located at or adjacent to the project site. Furthermore, no designated Alquist-Priolo Fault Zones intersect the project site. The potential for fault rupture on the site is estimated to be low.[2] Active and potentially active faults nearest the Project site (see Figure 4.5-3, Active Faults in or near the City of Clearlake). Active faults nearest the Project site along with their estimated Maximum Moment Magnitude are included in Table 4.5-1. The nearest potentially

[1] Foster, Morrison. City of Clearlake Local Hazard Mitigation Plan. 2019.
[2] Moore Twining Associates. Geotechnical Engineering Investigation Report prepared for the Home Depot Store, Inc. February 22, 2008.

active fault is part of the Huntington Creek-Berryessa Fault Zone. The maximum moment magnitude that this fault could produce is 6.9. In addition to these faults, there are numerous other unnamed potentially active faults located near the project site.

Table 4.5-1: Faults Near Project Area

Fault	Approximate Distance from the Project Site	Fault Classification[1]	Maximum Moment Magnitude[2]
Huntington Creek-Berryessa Fault Zone	4 miles east	Potentially Active	6.9
Konocti Bay Fault Zone	4 miles west	Active/Potentially Active	n/a
Clover Valley Fault	7 miles northwest	Potentially Active	n/a
Big Valley Fault Zone	11 miles northwest	Active	n/a
Resort Fault Zone	12 miles northeast	Potentially Active	n/a
Bartlett Springs Fault	14 miles north	Potentially Active	7.1
Dunnigan Hills	33 miles southeast	Active	6.75
Collayomi Fault	9 miles west	Potentially Active	6.5
Maacama Fault	21 miles west	Active	7.1
Marsh Creek-Greenville Fault	22 miles west	Potentially Active	n/a
Healdsburg Fault	22 miles southwest	Potentially Active	n/a
Rodgers Creek Fault	25 miles southwest	Active	7.0
San Andreas Fault	43 miles west	Active	7.9

1 An active fault is defined as a fracture that has shifted in the last 10,000 to 12,000 years (Holocene Period). A potentially active fault is one that has been active in the past 1.6 million years (Quaternary Period). A sufficiently active fault is one that shows evidence of Holocene displacement on one or more of its segments or branches (Hart, 1997).
2 The moment magnitude scale is used by seismologists to compare the energy released by earthquakes.
N/A = not available or not known.
SOURCE: Moore Twining Associates, Inc. Geotechnical Engineering Investigation Report prepared for the Home Depot Store. February 22, 2008.

Liquefaction

Liquefaction in some soils and sediments occurs during earthquake events, when the underlying materials are transformed from a solid to a liquid state because of increases in pore pressure (the spaces between soil particles), which reduces friction between soil particles. Earthquake-induced liquefaction most often occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with some clay content. Liquefaction is also more likely to occur in areas where groundwater depths are shallow. The City's Local Hazard Mitigation Plan and General Plan identify the Project site as having moderate liquefaction susceptibility.

Subsidence and Settlement

Subsidence is the settling or sinking of parts of the earth's surface. There are various causes of subsidence, most of which happen slowly over a long period of time. Tectonic subsidence can occur suddenly due to a rapid compaction of soils from ground shaking during earthquakes. The process whereby soil materials settle at varying rates depending on the load weight is referred to as differential settlement. Differential settlement can be a greater hazard than total settlement if there are variations in the thickness of previous and new fills or natural variations in the thickness

and compressibility of soils across a given area. Settlement commonly occurs as a result of building construction or other large projects that require soil stockpiling. The highest potential for subsidence in Lake County is in areas characterized by geothermal development in the southern portion of the County.[3]

Volcanic Activity

Mount Konocti is a composite dacitic lava dome on the south shore of Clear Lake, approximately nine miles northwest of the project site. Mount Konocti is part of the Clear Lake volcanic field within the San Andreas fault system. Volcanic activity in Mount Konocti is considered dormant and has been largely non-explosive with the most recent eruptive activity occurring approximately 10,000 years ago.[4]

Landslides

The threat of seismically induced landslides in and around the City of Clearlake is low due to the gentle topography of much of the incorporated area. The City of Clearlake is classified by the California Geological Survey as being in landslide risk areas 1 and 2. These are the least hazardous areas and pose little or no threat.

Soils

The City of Clearlake is in a geologically complex region of hills and valleys of various ages and composition. The different parent materials in the area have created great differences in soil properties within short distances. The soils on the hills are predominantly shallow or moderately deep, of medium texture, and moderately well drained or well drained. In the valleys and on low terraces, the soils are deep to very deep, of medium or fine texture, and poorly drained to well-drained. Some soil types are expansive and will shrink and swell in response to moisture. Construction on these types of soils requires complex engineering or replacement of the soil on the site with non-expansive fill. Other soils may lose strength during earthquakes, increasing damage to structures.

There are several soil-related limitations for future development within the City. Limiting factors include high slope percent, depth to bedrock, tendency to flood, high erosion potential, poor soil strength and the shrinking and swelling of soils. Soil type is also important when considering waste disposal and placement of septic tanks. The majority of the soils within the City are unable to adequately absorb and filter septic tank effluent. Several soil types are underlain by loose sand and gravel or fractured bedrock, which can lead to groundwater contamination.

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[3] State of California Department of Water Resources. Summary of Recent, Historical, and Estimated Potential for Future Land Subsidence in California. 2014. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/GWU2013_Apdx_F_Final.pdf. Accessed July 29, 2025.

[4] USGS, California's Exposure to Volcanic Hazards, Scientific Investigations Report 2018–5159, Version 1.1. December 2019. https://pubs.usgs.gov/sir/2018/5159/sir20185159ver1.1.pdf. Accessed July 29, 2025.

Other geologic considerations are expansive and corrosive soils. Expansive soils have shrink-swell capacity, meaning they may swell when wet and shrink when dried. Expansive soils can be hazardous to structures and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential. Corrosive soils contain chemical constituents capable of damaging construction materials such as concrete and metals.

Asbestos is naturally occurring in soil. Asbestos is a friable mineral that when disturbed can become airborne. The fiber-like airborne asbestos particles are easily inhaled and can result in lung disease or other respiratory illnesses. If asbestos is not disturbed (in situ), the friable mineral typically remains naturally cemented and does not become an airborne pollutant. In Lake County, the Lake County Air Quality Management District locally regulates those actions with the potential to disturb naturally occurring asbestos. The California Air Resources Board is the authority that regulates asbestos state-wide. Although naturally occurring asbestos does occur in Lake County, it is not located on the project site.[5]

Paleontological Resources

Paleontological resources are the fossil remains or traces of past life forms, including both vertebrate and invertebrate species, as well as plants. A geologic unit known to contain significant fossils is considered to be "sensitive" to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either disturb or destroy fossil remains directly or indirectly. This definition of sensitivity differs fundamentally from the definition for archaeological resources because the boundaries of archaeological sites define the areal extent of the resource. However, paleontological sites encompass the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case.

The Clear Lake region is an active volcanic center that lies within a complex faulted region. The geologically recent faulting is a result of the northward migration of the San Andreas Fault system, locally represented by the Bartlett Springs Fault. These faults disrupted the older bedrock of accreted subduction zone material from the Jurassic and early Cretaceous, creating a series of down-dropped basins. The basins are filled with sediments derived from the local highlands and were deposited in alluvial fans, river facies, and lakes. Starting in the Pleistocene, mixed volcanics erupted from a variety of centers, defining Clear Lake as an active volcanic region. Low areas around the lake and in adjacent basins have been infilled with alluvium from the eroding hillsides.

The project lies in a basin bounded on the east by a northwest-southeast trending normal fault. The basin is filled in by the Cache Formation. Closer to the present lake, the Cache Formation is capped by older lake deposits of the Lower Lake Formation. Immediately in the project area is a remnant flow of the Dacite of Cache Creek. The dacite is one of the many units of the Clear Lake Volcanic series. Additional units of the Clear Lake Volcanics are found immediately outside the

[5] California Department of Conservation, Division of Mines and Geology. A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos, 2000, https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf, Accessed July 18, 2025.

project. Finally, the lowest topographic areas are covered by younger alluvium. See Appendix G for the Clearlake Airport Redevelopment Project Paleontological Resource Assessment Report.

4.5.3 Regulatory Context

Federal

The following are the federal environmental laws and policies relevant to geology and soils, as related to the Proposed Project.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 established the National Earthquake Hazards Reduction Program (NEHRP). Under the NEHRP, four federal agencies have responsibility for long-term earthquake risk reduction: the U.S. Geological Survey (USGS), the National Science Foundation, the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology. NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerability; improvements of building codes and land use practices; risk reduction through post-earthquake investigation and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results.

State

The following are the state environmental laws and policies relevant to geological and soil resources, as related to the Proposed Project.

Earthquake Fault Zoning Act (Alquist-Priolo Act)

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the act, the State geologist has established regulatory zones (known as earthquake fault zones) around surface traces of active faults. These have been mapped for affected cities, including the City of Gardena. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report, prepared by a geologist registered in the State of California, that is directed to the problem of potential surface fault displacement through a project site.

Seismic Hazards Mapping Act

The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 to protect the public from the effects of non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, ground amplification or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey (CGS) is the primary agency responsible for the implementation of the SHMA.

The CGS prepares maps identifying seismic hazard zones and provides them to local governments, which include areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. SHMA requires responsible agencies to only approve projects within these zones following a site-specific investigation to determine if the hazard is present, and if so, the inclusion of appropriate mitigation(s). In addition, the SHMA requires real estate sellers and agents at the time of sale to disclose whether a property is within one of the designated seismic hazard zones.

California Building Standards Code, Title 24

Title 24 of the California Code of Regulations (CCR) provides State regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as California Building Standards Code (CBSC) (reference California Health and Safety Code § 18909). Cities and counties are required by State law to enforce CCR Title 24, and may adopt ordinances making more restrictive requirements than provided by CCR Title 24 due to local climatic, geological, or topographical conditions.

National Pollutant Discharge Elimination System (NPDES)

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.). The RWQCB issues these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The NPDES permit terms implement pertinent provisions and regulations of the CWA, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less and are therefore required to be updated regularly. Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit).[6] The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing best management practices (BMPs) the discharger would use to prevent and retain stormwater runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs;

[6] California State Water Resources Control Board. Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022). https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0057-dwq.pdf. Accessed July 29, 2025.

and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

A Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the SWRCB on February 5, 2013.[7]

California Environmental Quality Act – Paleontological Resources

Section 5097.5 of the California Public Resources Code (California Environmental Quality Act) provides protection for paleontological resources on public lands as follows: "No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, paleontological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other paleontological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

Local

The following are the local governments' environmental policies and programs relevant to geology and soils, as related to the Proposed Project.

City of Clearlake 2040 General Plan

The General Plan contains the following policies and programs that are relevant to geology and soils:

Conservation Element:

Policy CO 2.3.1	Promote use of low impact development (LID) practices.
Program CO 1.2.1.1	The City should implement policies and programs established in the Total Maximum Drainage Load Implementation into the Lake.
Program CO 2.3.1.2	The City should provide guidance for development that uses City approved LID methods for new development projects.
Policy CO 10.2.5	In the event that archaeological/paleontological resources are inadvertently dis-covered during ground disturbing activities, the City shall require that all grading and construction work within 100 feet of the find be suspended until the significance of the resource can

[7] California State Water Resources Control Board. Water Quality Order No. 2013-0001-DWQ, NPDES NO. CAS000004, as amended. https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0001dwq.pdf. Accessed July 29, 2025.

be determined by a Registered Professional Archaeologist /Paleontologist as appropriate. The City will require that a Registered Professional Archaeologist/Paleontologist make recommendations for measures necessary to protect the find or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials, as appropriate.

Safety Element

Policy SA 1.2.3 The City shall continue to work with Lake County to ensure that additional storm drainage runoff and erosion resulting from development occurring in unincorporated areas upstream from drainage channels is adequately mitigated through improvements on site and/or downstream.

Policy SA 1.2.4 The City shall enforce measures to minimize soil erosion and volume and velocity of surface runoff both during and after construction through application of the erosion control guidelines.

Policy SA 1.4.1 The City shall require structural integrity of existing buildings to reasonably protect occupants from earthquakes.

Policy SA 1.4.2 The City shall require geotechnical reports by a state registered geologist for development proposals on sites in seismically and geologically hazardous areas and for all critical structures.

Policy SA 1.4.3 The City should designate properties in areas with severe sliding and soils conditions for low intensity uses such as open space, low density residential and agriculture.

Local Hazard Mitigation Plan

In 2019, the City adopted the Clearlake Local Hazard Mitigation Plan (LHMP) that identifies risks and ways to minimize damage from natural and human-caused hazards. Lake County in 2018 adopted its own LHMP which also addresses hazards similarly. Both plans relate to each other since they deal with common hazards that are not limited to jurisdictional boundaries. The purpose of the LHMPs is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. These plans were also developed to ensure the City and the County maintain eligibility for certain federal disaster assistance. Subject to review by FEMA and the State Office of Emergency Services, LHMPs require updating every five years. The County and the City are now working on developing a multi-jurisdictional LHMP that will allow a streamlined and collaborative approach to addressing hazard events. The City's part is an annex to the County's multi-jurisdictional plan. The update was prepared as a public review draft at the time this section of the EIR was prepared (July 2025) and is expected to be adopted by both agencies before the end of 2025. For the purposes of this EIR, the City's 2019 LHMP will be used as primary data support but will then be verified by reviewing the draft update documents.

Clearlake Municipal Code

Chapter 9 of the Clearlake Municipal Code, Building and Housing, adopts various codes and safety precautions that regulate development activities within the City. Section 9-1.4 incorporates by reference the 2022 California Building Standard Codes (CBC) as the City's code concerning grading regulations.[8] Grading regulations are intended to minimize geological and soils hazards. Chapter 14, Stormwater Management, contains the City's stormwater control ordinance. The ordinance addresses City requirements for stormwater management and discharge control, including controlling erosion, sedimentation, and other pollutant runoff. Chapter 16, Land Subdivision Regulations, contains the City's Subdivision Ordinance, which requires that soils reports, seismic analysis, bank stabilization, and other factors pertinent to the site location be provided as part of the application for a tentative subdivision map, unless the City Engineer determines that no preliminary analysis is necessary.[9] The City does not maintain a grading ordinance but applies Chapter 33 of the Uniform Building Code for grading activities.

4.6.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential project-specific impacts related to geology and soils. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact related to geology and soils if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;[10]
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; and
    - Landslides.

[8] Clearlake Municipal Code Subsection 9-1.4, California Building Standards Code – Adopted. https://clearlake.municipal.codes/CMC/9-1.4. Accessed July 29, 2025.
[9] Clearlake Municipal Code Chapter XVI, Land Subdivision. https://clearlake.municipal.codes/CMC/ChXVI. Accessed July 29, 2025.
[10] California Geological Survey. Earthquake Fault Zones: A Guide […] for Assessing Hazards in California. Department of Conservation. 2018. https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP_042-a11y.pdf. Accessed July 29, 2025.

- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;
- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and/or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Methodology

The information contained in this analysis is based on the General Plan EIR and the geotechnical report. The geotechnical report analyzed the subsurface conditions of much of the project site using a variety of sources to provide geotechnical recommendations for design of the Project or similar development.

Based on the Proposed Project and its location, the Project would not result in impacts related to the following criteria:

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

No impact discussion is provided for this topic because the Project would use City wastewater collection and treatment services. Overall sewer capacity is discussed in Section 4.8, of this EIR (Public Services and Utilities). No septic tanks or alternative wastewater disposal systems are proposed.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project's particular impacts as compared to General Plan build-out of the site.

4.5-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking or seismic related ground failure, including liquefaction (*Less than Significant*)

An earthquake of moderate to high magnitude generated within the Northern California region has the potential to cause considerable ground shaking at the project site. Strong ground shaking can result in liquefaction. While the City's Local Hazard Mitigation Plan and General Plan identifies the project site as having moderate liquefaction susceptibility, the project site is not located within or near an Alquist-Priolo Earthquake Fault Zone, and the geotechnical report concludes that the site has a low potential for rupture due to the relatively shallow depth to rock. The report states that liquefaction and seismic settlement are not considered a factor in project design other than what is expected under the building codes.

The Project proposes a mixed-use development consisting of residential and non-residential uses, as well as infrastructure improvements to serve the project site. Development would be required to comply with the provisions of the CBC, which includes design requirements to mitigate the effects of potential hazards associated with seismic ground shaking. Further, the Project would be reviewed by the City for conformance with the General Plan, Municipal Code, and other regulations that address seismic safety issues and would be required to provide adequate mitigation for existing and potential identified hazards.

General Plan Evaluation

The General Plan EIR evaluated, at a broad level, seismic ground shaking and related ground shaking aspects of the City. This EIR evaluated more specific seismic issues associated with the Proposed Project. Compliance with General Plan safety objectives, policies and programs applied to the Proposed Project will ensure development is safe.

Conclusion

With the implementation of the policies in the General Plan, as well as applicable State and City codes, potential impacts associated with a seismic event, including seismic ground shaking and liquefaction, would be ***less than significant***.

Mitigation Measure(s)
None required.

4.5-2 Substantial soil erosion or the loss of topsoil (*Less than Significant with Mitigation*)

Implementation of Project would provide for development and associated improvements that would involve land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

The project would be evaluated for conformance with the CBC, General Plan, Municipal Code, Lake County Clean Water Program Low Impact Development Standards Manual and other regulations that address construction activities and soil erosion. Each phase of project construction, as part of the "larger common plan of development," would be required to obtain coverage under the Construction General Permit prior to issuance of a grading permit.[11] The Construction General Permit requires development and implementation of a SWPPP and monitoring plan, which must include erosion-control and sediment control BMPs that would meet or exceed measures required by the Construction General Permit to control stormwater quality degradation due to potential construction-related pollutants. Further, project construction would be required to implement construction site control BMPs in compliance with the City's NPDES Permit (MS4). Project construction activities would also be subject to the City's grading ordinance and the Lake County Clean Water Program Low Impact Development Standards Manual, which controls land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from new development and redevelopment, and establishes procedures for the issuance, administration and enforcement of permits for such activities; and storm water control ordinance, which addresses City requirements for stormwater management and discharge control, including controlling erosion, sedimentation, and other pollutant runoff.

General Plan Evaluation

The General Plan EIR evaluated, at a broad level, sedimentation and erosion impacts concerning anticipated development. This EIR evaluated more specific sedimentation and erosion impacts associated with the Proposed Project. Compliance with General Plan sedimentation and erosion policies and programs applied to the Proposed Project will ensure development reduces sedimentation and erosion to an adequate level.

Conclusion

Due to the fact that the Project is a common plan of development which triggers the somewhat unusual requirement of coverage under the Construction General Permit for one-plus acres of disturbance over the whole of a development, mitigation is included to ensure

[11] California State Water Resources Control Board. "Welcome to the Construction Stormwater Program." California State Water Resources Control Board Construction Stormwater Program Overview. Accessed July 18, 2025.

clarity on this point for future developers and City staff. With this measure, the impact would be ***less than significant with mitigation***.

Mitigation Measure
Implementation of the following mitigation measures would reduce impacts to related to erosion and runoff.

Mitigation Measure 4.5-1: Obtain Coverage Under the Construction General Permit from the Central Valley Regional Water Quality Control Board. Given that the Project would, as a whole, disturb over one acre, and is a common plan of development, each project applicant shall obtain a SWPPP from the Central Valley Regional Water Quality Control Board and provide it to the Building Department prior to the onset of any construction activities and prior to issuance of grading and improvement permits.

4.5-3 Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (*Less than Significant*)

The Proposed Project was reviewed for unstable geologic conditions and determined that with more specific investigation pending formal subsequent development, the project would be built safely. Implementation of CBC and the Municipal Code requirements related to seismic and geologic conditions, as well as compliance with General Plan policies, would ensure that future development projects are evaluated for potential geologic and seismic risks and that potential risks are adequately addressed.

General Plan Evaluation

The General Plan EIR evaluated, at a broad level, geology and soils for concerning anticipated development. This EIR evaluated this category in more detail and determined the project site is stable to accommodate the proposed development. Compliance with General Plan geologic and soils policies and programs applied to the Proposed Project will ensure development reduces impacts from unstable geologic conditions to an adequate and safe level.

Conclusion

Compliance with applicable State and City regulations would reduce potential impacts associated with unstable geologic and soil conditions to a ***less than significant*** level.

Mitigation Measure(s)
None required.

4.5-4 Be located on expansive soil, as defined in Tables 18-1-D of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (*Less than Significant*)

Expansive soils may swell considerably when wet and shrink when dried. Expansive soils can be hazardous to structures and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. Structural damage, such as warping and cracking of improvements, and rupture of underground utility lines, may occur if the expansive potential of soils is not considered during the design and construction of all improvements.

According to the General Plan EIR, much of Clearlake is located where soils have the potential for shrink-swell. Determination of the presence and degree of effect of expansive soils is site-specific and may require further investigation by a geologist or engineer at the time of project development.

The geotechnical report, however, which covers a portion of the overall Project site, indicates the native clay soils on the site exhibit very low to low expansion potential. Structure and infrastructure improvements associated with the Project would be evaluated for conformance with the CBC, the General Plan, the Municipal Code, and other regulations. Implementation of CBC and the Municipal Code requirements related to seismic and geological conditions, as well as compliance with General Plan policies, would ensure that future development projects are evaluated for potential geologic and seismic risks and that potential risks are adequately addressed. The Clearlake Building Department may also require geotechnical reports for individual projects based on specific site conditions and compliance with the Clearlake Municipal Code and CBC.

General Plan Evaluation

The General Plan EIR evaluated expansive soils on a broad level for future anticipated development. This EIR evaluated in more detail the existence of expansive soils that could impact specific development of the project. Compliance with General Plan geologic and soils policies and programs applied to the Proposed Project will ensure development reduces impacts from expansive soils to an adequate and safe level.

Conclusion

Compliance with applicable State and City regulations would ensure potential impacts associated with expansive soils are ***less than significant***.

Mitigation Measure(s)
None required.

4.5-5 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (*Less than Significant with Mitigation*)

Section 5097.5 of the California Public Resources Code (California Environmental Quality Act) indicates that it is unlawful to remove paleontological resources. The City's General Plan Conservation Element states, "In the event that archaeological/paleontological resources are inadvertently discovered during ground disturbing activities, the City shall require that all grading and construction work within 100 feet of the find be suspended until the significance of the resource can be determined by a Registered Professional Archaeologist/Paleontologist as appropriate. The City will require that a Registered Professional Archaeologist/Paleontologist make recommendations for measures necessary to protect the find or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials, as appropriate" (Policy CO 10.2.5).

A paleontological resource assessment report prepared for the project by Russell Shapiro, Ph.D. Principal and Qualified Paleontologist of Sub-Terra Heritage Resource Investigations in August 2025, concludes that the project is not like to encounter significant paleontological resources in shallow excavations (see Appendix G). However, the report notes that deep excavations exceeding five feet below ground surface, in the region mapped as alluvium (al) and Lower Lake Formation (II) may encounter the Cache Formation that is known to contain significant paleontological resources. Figure 4.5-5, Geologic Units, shows these locations and Figure 4.5-6, Sensitive Paleontological Resource Areas, shows the specific locations of these sensitive areas and links it to further investigation by a qualified paleontologist.

Due to the potential for paleontological resources in the Project area, mitigation is required to ensure that impacts are minimized if unanticipated paleontological resources are inadvertently discovered. With implementation of the identified mitigation, this impact would be ***less than significant with mitigation***.

Mitigation Measure

Implementation of the following mitigation measures would reduce impacts to paleontological resources.

Mitigation Measure 4.5-2. Paleontological Mitigation Plan for Areas shows in Figure 4.5-6. Any excavations exceeding five feet below ground surface with the Cache Formation (al) or the Lower Lake Formation (II) shall first undergo review for paleontological resource mitigation. These areas are shown on Figure 4.5-6. Paleontological review shall be conducted by a Principal Investigator to include preparation of a mitigation plan for on-site subsurface geology. Necessary elements of the plan shall include paleontological monitoring, proper field recovery techniques, museum curation, and post-excavation reporting. The mitigation plan shall also include guidance for minimizing or ending paleontological monitoring should local conditions prove unlikely to host significant fossils. Final engineering plans shall incorporate the paleontological mitigation plan.

Mitigation Measure 4.5-3. Unanticipated Discovery of Paleontological Resources. If fossils or fossil-bearing deposits are encountered during ground-disturbing activities, work within a 100-feet radius of the find all construction/disturbance within this radius shall halt, the City Planning Department shall be notified, and a Qualified Professional Paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the Qualified Paleontologist.

4.5-6 Cumulative geologic or soils impacts related to risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction; substantial soil erosion or the loss of topsoil; substantial direct or indirect risks to life or property from expansive soils (*Less than Cumulatively Considerable*)

Related projects in the City may have the potential to interact with the Project to the extent that a significant cumulative effect relative to geology and soils may occur. The geographic setting for geology and soils typically contains regional and local considerations, as the cumulative projects' geologic setting and regional seismicity would be similar; however, the local geologic setting, surficial geology, and subsurface and above soil conditions would vary according to the site location and specific conditions. Therefore, cumulative impact analysis of geology and soils must consider development within the City, as well as development within the vicinity of the project site.

Potentially adverse environmental effects associated with seismic hazards are usually site-specific and generally do not result in cumulative effects. Cumulative projects could be exposed to considerable ground shaking during seismic events, but the development of individual projects would not increase the potential for impacts to occur.

Potentially adverse environmental effects associated with topographic alteration and erosion are usually site-specific and generally do not result in cumulative effects. Development of the Project and cumulative projects would involve some land clearing, excavation, and grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction.

Potentially adverse environmental effects associated with expansive soils, topographic alteration, and erosion, are usually site-specific and generally do not result in cumulative effects.

In the event that future cumulative development would result in impacts related to geologic, soils, or seismic impacts, those potential project- or site-specific impacts would be ad-

dressed in accordance with the requirements of CEQA. New buildings would be constructed utilizing current design and construction methodologies for earthquake resistant design as required by relevant regulations.

Site specific geology and soil conditions would be evaluated on a project-by-project basis, and each project would be required to comply with stormwater runoff and pollution control requirements required by the Regional Water Control Board and implemented by the City. These include Low Impact Development (LID) Standards that are used by the County and the Cities of Lakeport and Clearlake. Construction activities for projects in the City would also be subject to the City's grading permit process and standards.

General Plan Evaluation

The General Plan EIR evaluated, at a broad level, geologic or soils impacts related to risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction; substantial soil erosion or the loss of topsoil; substantial direct or indirect risks to life or property from expansive soils of the City. Consistent with General Plan objectives, policies, and programs, this EIR evaluated these potential factors applied to the Proposed Project and for the most part determined that the project site can safely accommodate the Proposed Project without significant adverse geologic or soils impacts.

Conclusion

This EIR determined that with proper investigation of more specific development, through building permit review and compliance with state and City codes, the project will not result in significant impacts related to geologic or soils impacts related to risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction; substantial soil erosion or the loss of topsoil. Mitigation Measure ; substantial direct or indirect risks to life or property from expansive soils. Mitigation Measure 4.6-1, regarding obtaining a Coverage Under the Construction General Permit from the Central Valley Regional Water Quality Control Board for subsequent development will assure this and future cumulative impacts regarding the geology and soils would be ***less than cumulatively considerable***.

Mitigation Measure(s)
Implementation of Mitigation Measure 4.5-1

Cumulative Impacts and Mitigation Measures

4.5-7 In combination with other cumulative development, directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (*Less than Cumulatively Considerable with Mitigation*)

Any project involving earth-moving activity could potentially result in inadvertent discovery and disturbance of paleontological resources during grading and excavation work; these inadvertent discoveries could create potentially significant impacts. As indicated in the General Plan EIR, numerous paleontological resources have been discovered in Lake County. While no paleontological resources have been discovered within the City, there is potential that resources could be found in the future. As referenced in the project paleontological assessment, the project is not likely to encounter significant paleontological resources in shallow excavations. However, the report notes that deep excavations exceeding five feet below ground surface, in the region mapped as alluvium (al) and Lower Lake Formation (II), may encounter the Cache Formation that is known to contain significant paleontological resources. Future ground-disturbing activities associated with project implementation and cumulative projects could have potential to cumulatively impact paleontological resources, and the project would have a cumulatively considerable contribution to that impact. The Proposed Project would develop land that has been highly disturbed as a result of light industrial activities. Although the land is disturbed, there is a potential to uncover previously unknown paleontological resources, particularly within identified sections of the site where excavations of greater than five feet could be particularly sensitive for finding resources. Therefore, the proposed Project would have a cumulatively considerable contribution to the cumulative impact, and the cumulative impact would be ***less than cumulatively considerable with mitigation***.

Mitigation Measure

Implement Mitigation Measures 4.5-1 and 4.5-2.

Figure 4.5-1: Project Location

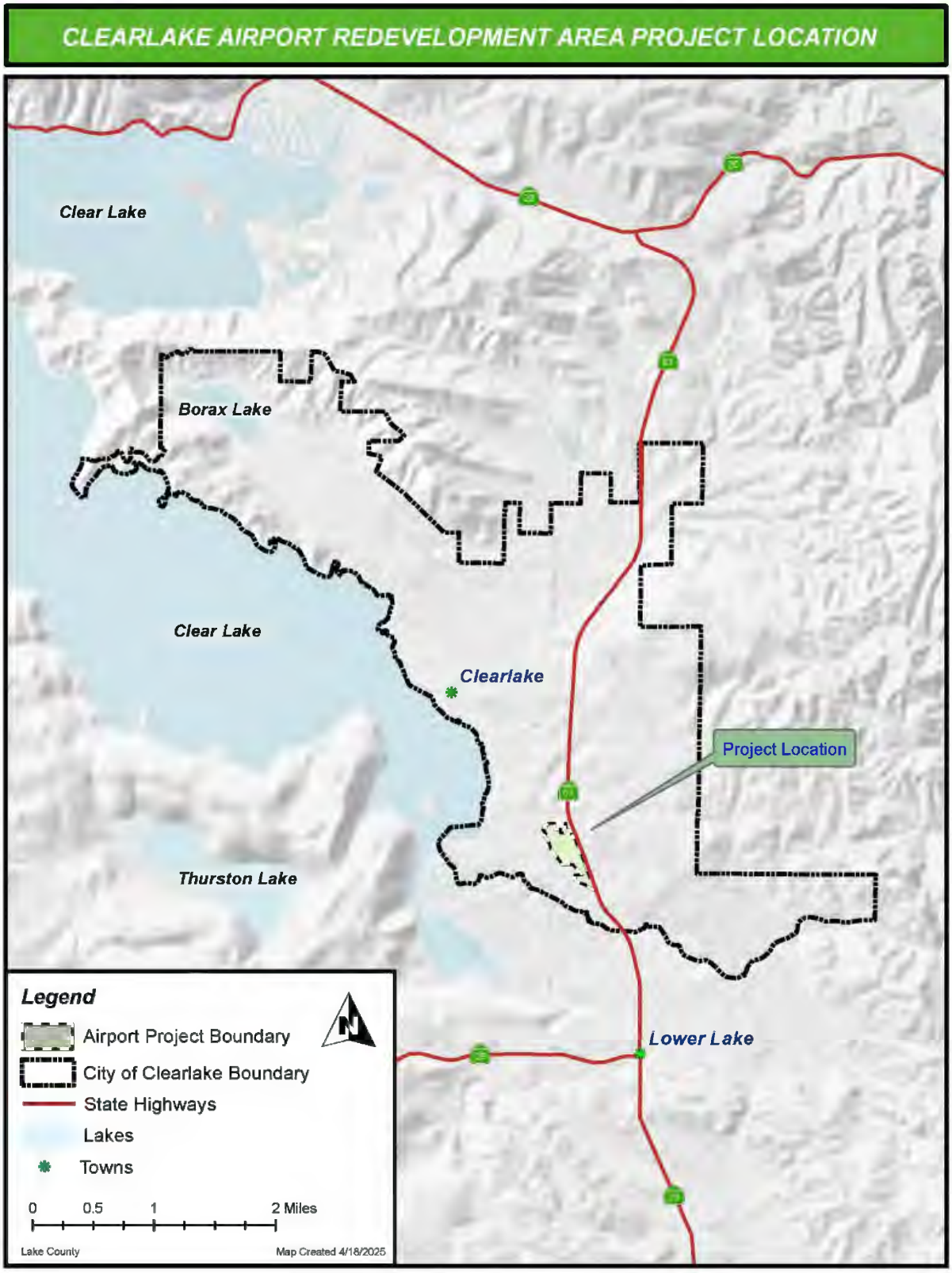
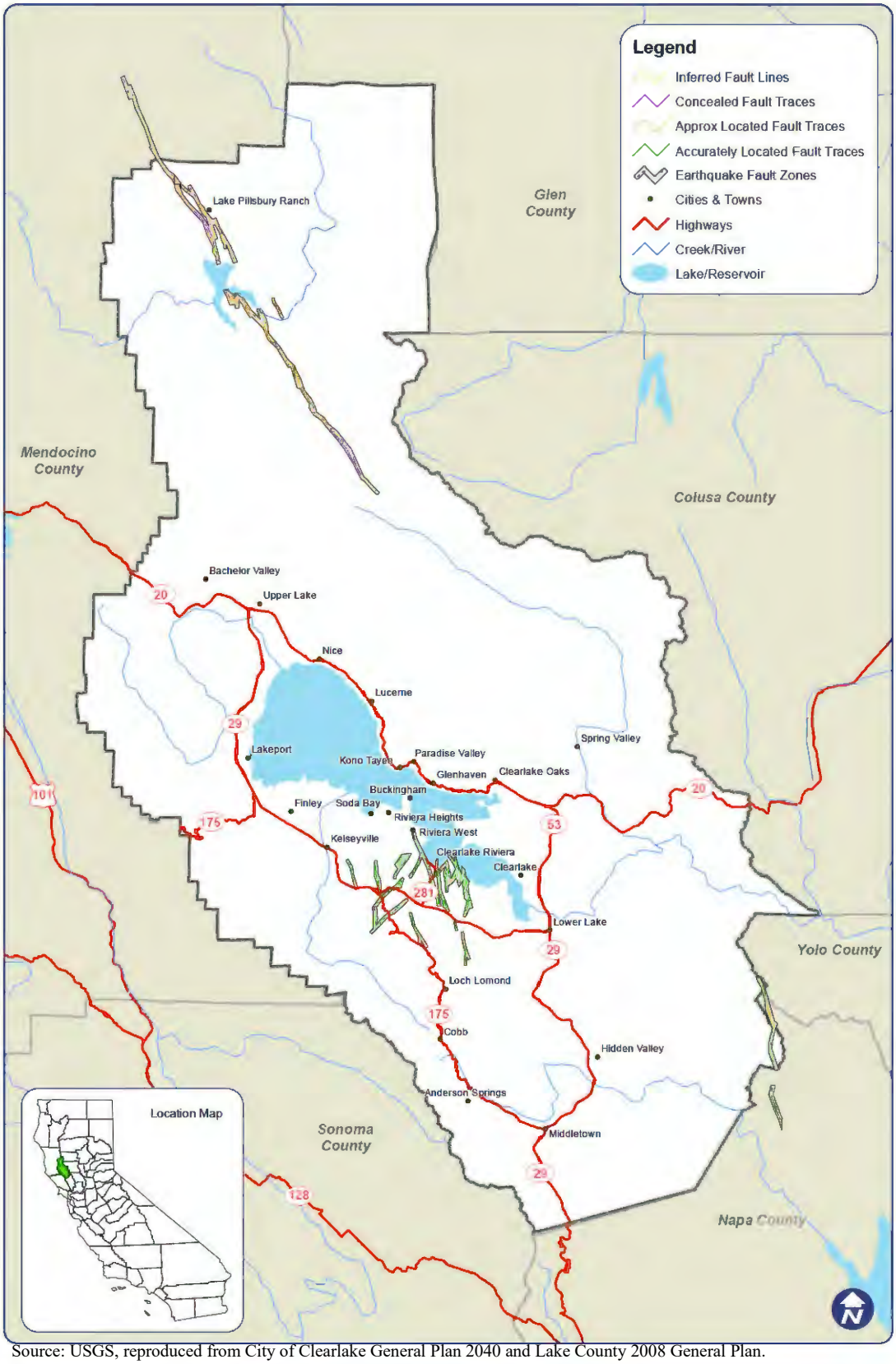


Figure 4.5-2: Topographic Map of Project Site



Figure 4.5-3: Active Faults in or near the City of Clearlake



Source: USGS, reproduced from City of Clearlake General Plan 2040 and Lake County 2008 General Plan.

Figure 4.5-4: Landslide Incidence and Susceptibility Areas

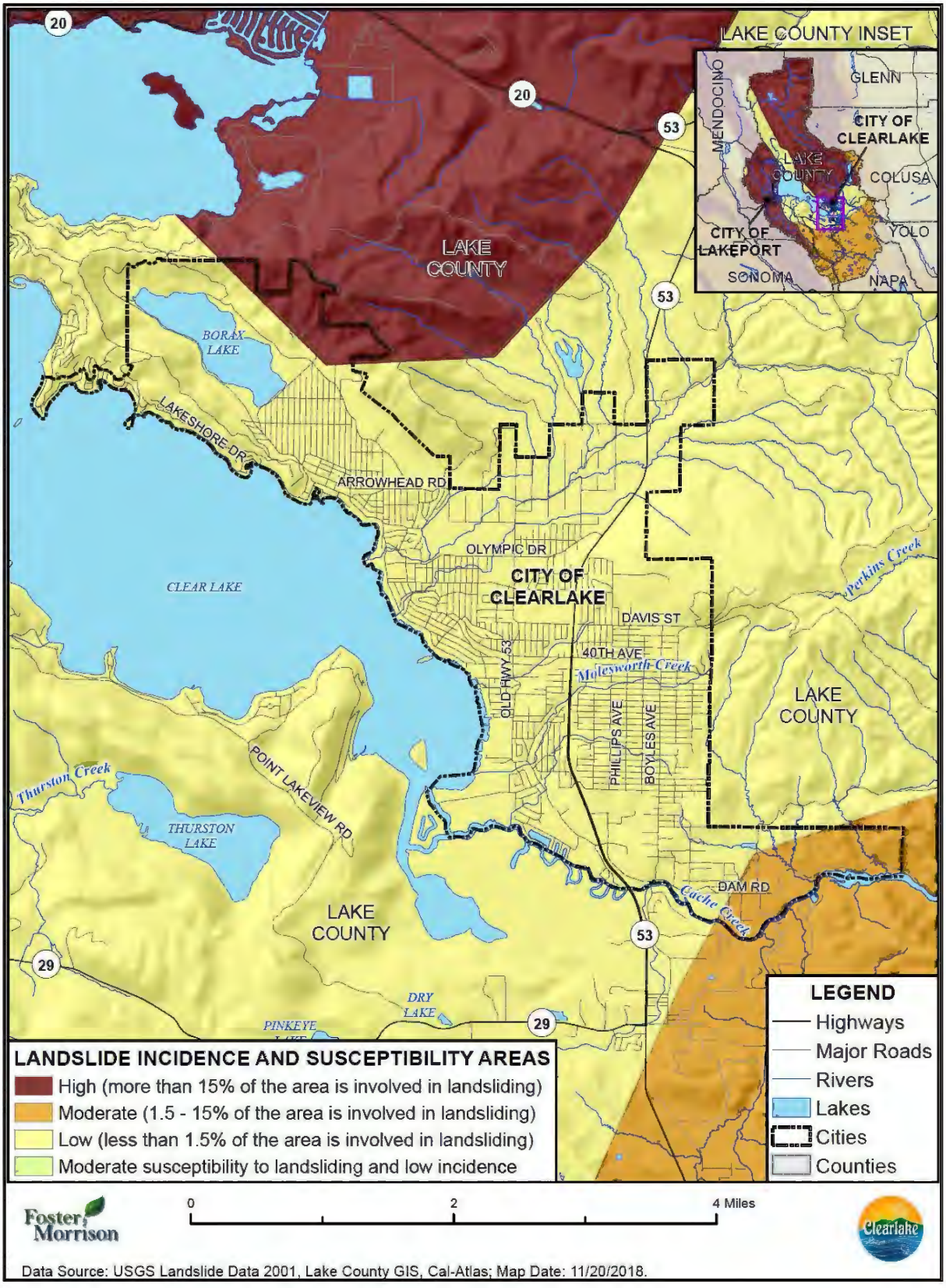
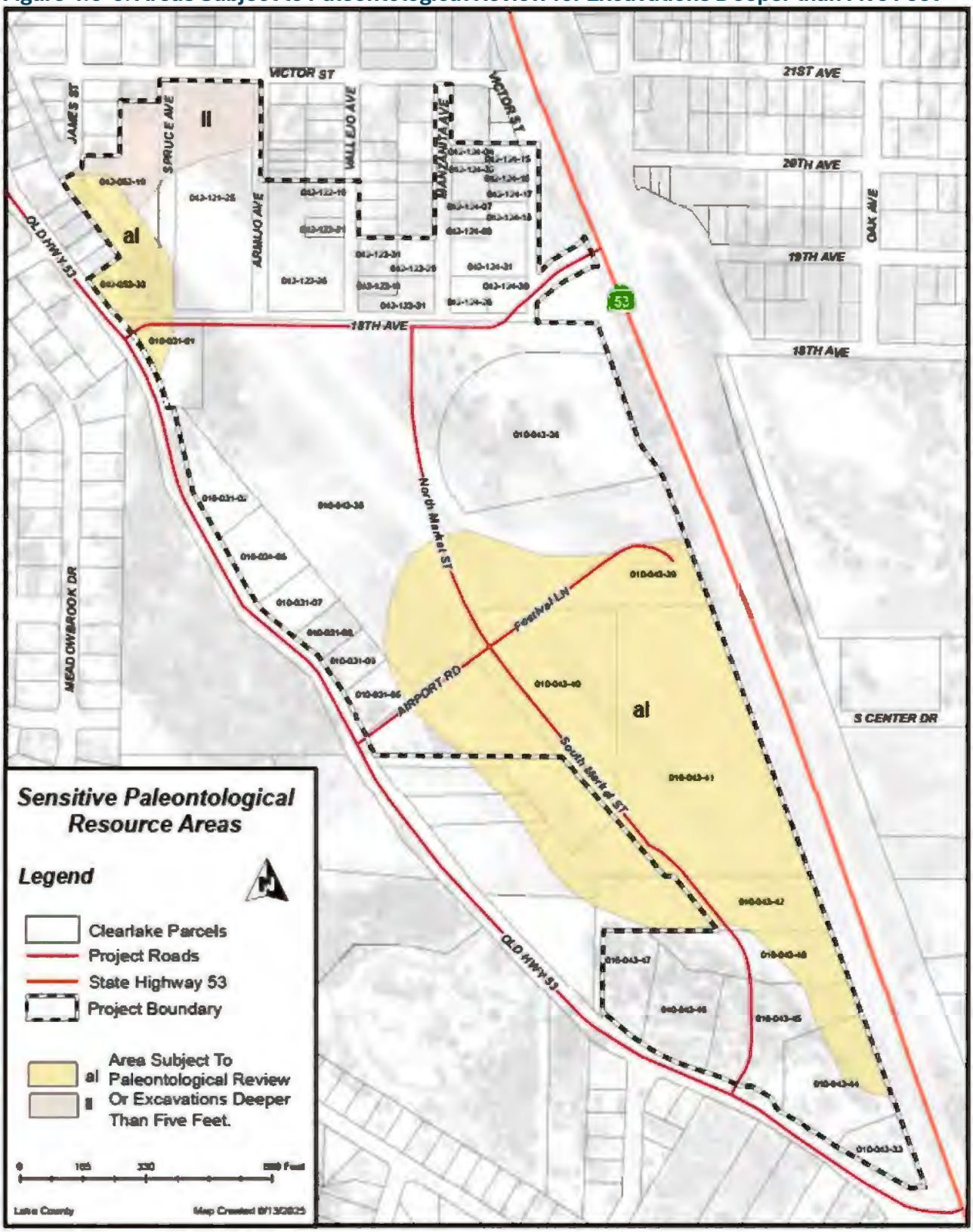


Figure 4.5-5: Geological Units



Figure 4.6-6: Areas Subject to Paleontological Review for Excavations Deeper than Five Feet



4.6 GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

4.6.1 Introduction

This chapter discusses regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from implementation of the Proposed Project. This Chapter provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change. This Chapter is organized with an existing setting, regulatory setting, approach/methodology, and impact analysis. The analysis and discussion of the GHG, climate change, and energy conservation impacts in this Chapter focuses on the Project's consistency with local, regional, and statewide climate change planning efforts and discusses the context of these planning efforts as they relate to the Project. Disclosure and discussion of the Project's estimated energy usage and greenhouse gas emissions are provided.

No comments were received on GHGs, climate change, or energy during the Notice of Preparation for the Proposed Project.

4.6.2 Existing Environmental Setting

Existing Climate Setting

There are ten primary GHGs; of these, water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), are naturally occurring. The remaining six are products of anthropogenic, industrial processes. Although the direct GHGs CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2023, concentrations of these three GHGs have increased globally by approximately 150, 264, and 124 percent, respectively.[1] Anthropogenic emissions of CO_2 are largely by-products of fossil fuel combustion, primarily from transportation and power generation, whereas CH_4 results from off-gassing, natural gas leaks from pipelines and industrial processes and incomplete combustion associated with agricultural practices, landfills, energy providers and other industrial facilities.[2]

In emissions inventories, GHG emissions are typically reported as metric tons (MT) of CO_2 equivalents (CO_2e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific global warming potential (GWP). While CH_4 and N_2O have much higher GWP than CO_2, CO_2 is emitted in higher quantities and it accounts for the majority of GHG emissions in CO_2e, both from commercial developments and human activity in general.

[1] World Meteorological Organization. "Greenhouse Gas Concentrations Hit Record High Again." November 15, 2023. https://wmo.int/news/media-centre/greenhouse-gas-concentrations-hit-record-high-again. Accessed September 1, 2025.
[2] Center for Sustainable Systems, University of Michigan. 2024. "Greenhouse Gases Factsheet." Pub. No. CSS05-21. https://css.umich.edu/publications/factsheets/climate-change/greenhouse-gases-factsheet. Accessed September 1, 2025.

GHG Emissions Estimates

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In 2021, the United States emitted approximately 6.34 billion tons of CO_2e, a decrease from the estimated 6.46 billion tons of CO_2e emitted in 2017 as reported by the United States Environmental Protection Agency (US EPA or EPA). Similar to GHG emissions presented in the 2020 EIR, of the five main sectors – residential and commercial, industrial, agriculture, transportation, and electricity generation – the transportation sector accounts for the highest portion of GHG emissions in 2021 (28.5 percent, down from 29 percent in 2017), followed closely by electricity production (25 percent, down from 28 percent in 2017.[3] California has decreased the carbon intensity of its economy by 55 percent in the last 20 years, driven by regulations outlined in the Regulatory Setting segment of this Chapter.

Emissions from on-road gasoline and diesel vehicles declined as a result of regulations such as Advanced Clean Cars and the Low Carbon Fuel Standard which require cleaner emissions technology and cleaner fuel, respectively. The electricity sector had its lowest carbon intensity since 2000. Wind and solar now represent 30 percent of generation and in-state solar increased by 15 percent from 2021, driven by requirements under the state's Cap-and-Trade Program and Renewables Portfolio Standard. Furthermore, California increased its battery storage by 757 percent from 2019 through 2023, bolstering its renewable energy efforts. Industrial emissions declined by 2 percent, falling to the lowest level in 22 years.

While refinery emissions remained essentially flat, emissions from oil and gas extraction declined, as did emissions from other fuel use, cement manufacturing, and cogeneration facilities. Livestock emissions, which are responsible for 70 percent of agriculture's greenhouse gas emissions, peaked in 2012 and once again saw reductions in 2022. The decrease is driven by the use of methane digesters funded by the California Climate Investments and incentivized by the Low Carbon Fuel Standard, which capture emissions at the source and convert them to clean fuel. Landfill methane emissions also continued to decline in 2022. This decline can be attributed in part to the state's efforts to reduce disposal of organic waste, as well as the California Landfill Methane Regulation, which requires landfill operators to monitor and capture emissions escaping from their facilities.

Emissions from refrigerants also continue to decline in the transport sector. This reduction can be attributed to California's transport refrigeration Airborne Toxic Control Measure and to the Low-Emission Vehicle Regulation (part of Advanced Clean Cars), which requires lower global warming potential refrigerants in automobiles.[4]

Effects of Global Climate Change

[3] United States Environmental Protection Agency. "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021." February 15, 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. Accessed September 1, 2025.

[4] California Air Resources Board. "California Greenhouse Gas Emissions Decline Across Most Sectors." September 20, 2024. California Air Resources Board webpage article on greenhouse gas emissions reductions.. Accessed September 1, 2025.

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could potentially decline by 48 percent to 65 percent by the end of the 21st century.[5] This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately 8 inches during the last century in La Jolla and San Francisco, California and it is predicted to rise an additional 0.03 inches per year, or 1 to 6.6 feet by 2100, depending on the future GHG emissions levels.[6 & 7] If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion, and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of California's Fourth Climate Change Assessment summary report, the impacts of global warming in California are anticipated to include, but are not limited to, the following.[8]

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 percent to 35 percent under the lower warming range and to 75 percent to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate

[5] California Department of Water Resources. "Climate Change and Water." 2025. California Department of Water Resources webpage article on climate change and water resources.. Accessed September 1, 2025.
[6] California Office of Environmental Health Hazard Assessment. "Sea Level Rise." July 1, 2024. https://oehha.ca.gov/climate-change/epic-2022/impacts-physical-systems/sea-level-rise. Accessed September 1, 2025.
[7] California Ocean Protection Council and California Ocean Science Trust. "State of California Sea Level Rise Guidance: 2024 Science and Policy Update." January 2024. https://opc.ca.gov/wp-content/uploads/2024/01/SLR-Guidance-DRAFT-Jan-2024-508.pdf. Accessed September 1, 2025.
[8] Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. (California Governor's Ofce of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018. Statewide Summary Report. California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-013. https://www.climateassessment.ca.gov/. Accessed September 1, 2025.

Change Assessment report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90ºF in Los Angeles and 95ºF in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada Spring snowpack by as much as 70 to 90 percent. Under the lower warming scenario, snowpack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain, but which are estimated to demonstrate increasing variability. However, even under the wetter climate projections, the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's

farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk. Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species, while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent. Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

Energy Consumption

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 33 percent of electricity generated from renewable resources by 2020, 60 percent by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under AB 100).

California is the second-largest total energy consumer among the states, after Texas, but its per capita energy consumption is tied for second-lowest in the nation. California's per capita rate of energy usage has remained relatively constant since the 1970s and is approximately 35 percent lower than the average energy use per capita in the nation.[9] Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles, results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, and nuclear generation resources. In 2024, renewable resources, including hydroelectric power and small-scale solar power, supplied 57 percent of California's in-state electricity generation. Natural gas fueled another 35 percent, and nuclear power provided almost all the rest.[10] The percentage of renewable resources as a proportion of California's overall energy portfolio has been increasing over time, as directed in the State's RPS.

[9] U.S. Energy Information and Administration. "California: Profile Overview." 2025. U.S. Energy Information Administration California: Profile Overview. Accessed September 1, 2025.
[10] Ibid.

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 276,213 GWh in 2023, which is an estimated annual growth rate of 3.85 percent. Electricity consumption in Lake County has decreased over the past 33 years from 452 GWh in 1990 to 437.2 GWh in 2023.[11]

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. In 2023, the most recent year for which data is available, the United States was both the top producer and top consumer of oil of any country in the world, with nearly double the production of the next highest country, Saudi Arabia, and 25 percent more consumption than the next highest consumer, China. The United States, with approximately five percent of the world's population, accounts for approximately 20 percent of world oil consumption, or approximately 20.01 million barrels per day.[12] The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 97 percent of the State's transportation energy needs. In 2024 California produced approximately 109.5 million barrels of oil annually, which is part of a declining trend since its peak in 1985, when the state produced over 400 million barrels.[13] In 2023 California used approximately 648 million barrels of oil annually, significantly more than it produced. [14]

Natural Gas/Propane

PG&E does not provide natural gas in the Clearlake area. However, individual residences often have propane tanks to supplement electricity use, as do some commercial operations.

4.6.3 Regulatory Context

Federal

Federal Clean Air Act

The EPA, under the federal Clean Air Act, is responsible for enforcement of atmospheric pollutant standards and regulates emission sources including GHGs. The EPA has been directed to develop regulations to address the GHG emissions of cars and trucks. The Mandatory Reporting of

[11] California Energy Commission. "Electricity Consumption." 2025. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed September 1, 2025.
[12] U.S. Energy Information Administration. "Frequently Asked Questions: What countries are the top producers and consumers of oil." April 11, 2024. U.S. Energy Information Administration webpage on oil production and consumption.. Accessed September 1, 2025.
[13] --. "Petroleum & Other Liquids: California Field Production of Crude Oil." August 29, 2025. U.S. Energy Information Administration webpage on California oil production.. Accessed September 1, 2025.
[14] --. "California State Energy Profile." June 20, 2025. U.S. Energy Information Administration webpage on California's energy sector profile.. Accessed September 1, 2025.

Greenhouse Gases Rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHG, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA. To track the national trend in emissions and removals of GHG since 1990, EPA develops the official U.S. Inventory of Greenhouse Gas Emissions and Sinks each year.

On April 2, 2007, the U.S. Supreme Court ruled that CO_2 is an air pollutant as defined under the Clean Air Act, and that the EPA has the authority to regulate emissions of GHGs. The EPA made two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act, as follows:

- Endangerment Finding: The current and projected concentrations of the six key well-mixed GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF6) in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

In July 2025, EPA announced it was proposing to rescind the Endangerment Finding and all prior regulations and actions that rely on the Endangerment Finding.[15] On August 19-20, 2025, the EPA held a public virtual hearing to gather comments on the proposed reconsideration and potential rescission of the finding, but has not taken action as of this writing.

Federal Vehicle Standards

These Endangerment and Cause or Contribute Findings do not themselves impose any requirements on industry or other entities. However, they were a prerequisite for implementing GHG emissions standards for vehicles. In May 2010, the EPA in collaboration with the National Highway Traffic Safety Administration (NHTSA) finalized national GHG emission and fuel economy standards for light-duty vehicles for the model years 2012 to 2016. These standards were consistent with the standards adopted by California under the Pavley Regulations, described below. In August 2012, EPA and NHTSA extended the national GHG emission and fuel economy standards for light-duty vehicles for the model years 2017 to 2025. Combined with the 2012 to 2016 standards, the regulation will result in vehicles emitting 50 percent less than 2010 levels in in 2025. In August 2016, EPA and NHTSA finalized national GHG emission and fuel economy standards for medium- and heavy-duty vehicles that would cover model years 2018 to 2027 for certain trailers and model years 2021 to 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

[15] U.S. Environmental Protection Agency. "EPA Releases Proposal to Rescind Obama-Era Endangerment Finding, Regulations that Paved the Way for Electric Vehicle Mandates." July 29, 2025. https://www.epa.gov/newsreleases/epa-releases-proposal-rescind-obama-era-endangerment-finding-regulations-paved-way. Accessed August 28, 2025.

Inflation Reduction Act

The Inflation Reduction Act was signed into law by President Biden in August 2022. The bill includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the U.S. by 40 percent as compared to 2005 levels by 2030. The bill allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and began regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the implementation of energy systems that would reduce GHG emissions related to energy production.

State

California Climate Solutions Act

In September 2006, Assembly Bill (AB) 32, the California Climate Solutions Act of 2006, was enacted (Stats. 2006, Ch. 488) (Health & Saf. Code, §38500 et seq.). AB 32 delegated the authority for its implementation to the CARB and directs CARB to enforce the State-wide cap. Among other requirements, AB 32 required CARB to (1) identify the State-wide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a Scoping Plan. Accordingly, the CARB has prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008 and is required to be updated every five years.

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which builds on the previous scoping plan as well as the requirements set forth by the California Climate Crisis Act (AB 1279, further described below), which directs the State to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022

Scoping Plan lays out how California can reduce GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045. The 2022 Scoping Plan creates a sector-by-sector roadmap for California that deploys "a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor."[16]

California GHG Cap-and-Trade Program

The AB 32 Scoping Plan identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The program was instated to put California on the path to meet the GHG emission reduction goal of 1990 levels by the year 2020, and ultimately to achieve an 80 percent reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established by the cap-and-trade program and facilities subject to the cap, which are able to trade permits (allowances) to emit GHGs. The CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32. The program started on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions.

Climate Equity and Transparency Act and Senate Bill 32

On September 8, 2016, Governor Jerry Brown signed into law the Climate Equity and Transparency Act (AB 197) and Senate Bill (SB) 32 with the goal of providing further control over GHG emissions in the State. SB 32 built on previous GHG reduction goals by requiring that the CARB ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by the year 2030. Additionally, SB 32 emphasized the critical role that reducing GHG emissions would play in protecting disadvantaged communities and the public health from adverse impacts of climate change. Enactment of SB 32 was predicated on the enactment of AB 197, which seeks to make the achievement of SB 32's mandated GHG emission reductions more transparent to the public and responsive to the Legislature. Transparency to the public is achieved by AB 197 through the publication of an online inventory of GHG and TAC emissions from facilities required to report such emissions pursuant to section 38530 of California's Health and Safety Code. AB 197 further established a six-member Joint Legislative Committee on Climate Change Policies, which is intended to provide oversight and accountability of the CARB, while also adding two new legislatively appointed, non-voting members to the CARB. Additionally, AB 197 directs the CARB to consider the "social costs" of emission reduction rules and regulations, with particular focus on how such measures may impact disadvantaged communities.

California Climate Crisis Act

California Climate Crisis Act (AB 1279) requires the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions

[16] California Air Resources. *2022 Scoping Plan for Achieving Carbon Neutrality*. December 2022. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed August 28, 2025.

thereafter. The bill also requires California to reduce statewide anthropogenic GHG emissions by 85 percent below 1990 levels and directs CARB to work with relevant state agencies to achieve these goals.

Small Off-Road Engines

Small Off-Road Engines (AB 1346) or California's "Green Lawn Care" law bans the sale of new gasoline-powers lawnmowers and other small off-road engines (SOREs) and went into effect starting January 1, 2024.

Greenhouse Gas Vehicle Emissions Standards

California AB 1493 (Stats. 2002, ch. 200; Health & Safety Code, §§42823, 43018.5), known as Pavley I, was enacted on July 22, 2002. AB 1493 requires that the CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state." On June 30, 2009, the EPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles, beginning with the 2009 model year. Pursuant to the CAA, the waiver allows the State to have special authority to enact stricter air pollution standards for motor vehicles than those of the federal government. On September 24, 2009, the CARB adopted amendments to the Pavley regulations (Pavley I) that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The second phase of the Pavley regulations (Pavley II) is expected to affect model year vehicles from 2016 through 2020. The CARB estimates that the regulation would reduce GHG emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

Building Energy Standards

California Energy Code

The 2022 Title 24 Standards improve upon the 2019 standards for new construction, additions, and alterations to residential and nonresidential buildings. The CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code (CBSC) in December 2021. The 2022 Energy Code went into effect on January 1, 2023.

The 2022 Energy Code focuses on four key areas in newly constructed homes and businesses: 1) Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units. 2) Establishing electric ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and electric vehicle (EV) charging options whenever they choose to adopt those technologies. 3) Expanding PV system and battery storage standards to make clean energy available on-site and complement the state's progress toward a 100 percent clean electricity grid. 4) Strengthening ventilation standards to improve indoor air quality.

CALGreen Code

Title 24, Part 11. In 2008, the California Building Standards Commission adopted the nation's first green building standards; the CALGreen Code (CALGreen; Part 11 of Title 24) establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CEC updates the Title 24 Energy Code every 3 years, and the 2022 Title 24 Energy Code was adopted in August 2021 and went into effect on January 1, 2023.

When compared to the 2019 Title 24 Standards, the 2022 amendments include measures that will further reduce energy use in single family, multifamily, and nonresidential buildings, through the following strategies:

- New standards for electric heat pumps for space conditioning and water heating, as appropriate for the various climate zones in California,
- Require PV and battery storage systems for newly constructed multifamily and selected nonresidential buildings,
- Updated efficiency measures for lighting, building envelope, heating, ventilation, and air conditioning (HVAC), and
- Improvements to reduce the energy loads of certain equipment covered by (i.e., subject to the requirements of) the Energy Code that perform a commercial process that is not related to the occupant needs in the building (such as refrigeration equipment in refrigerated warehouses, or air conditioning for computer equipment in data processing centers).

Executive Orders

Executive Order B-30-15

On April 29, 2015, Executive Order B-30-15 set a statewide GHG reduction target of 40 percent below 1990 levels by 2030. The governor identified the following methods to achieve these reductions:

- Incorporate climate change impacts into the state's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan – the State climate adaption strategy – to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change;
- Factor climate change into state agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce GHG emissions.

The five key goals that Governor Brown has identified for reducing GHG emissions in California through 2030 include the following: [17]

- Increase renewable electricity to 50 percent;
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner;
- Reduce petroleum use in cars and trucks by up to 50 percent;
- Reduce emissions of short-lived climate pollutants; and
- Manage farms, rangelands, forests and wetlands to store carbon.

The CARB is to update the Climate Change Scoping Plan with the 2030 target, while the California Natural Resources Agency is to update Safeguarding California. In addition, all state agencies are to consider climate change and the goals of EO B-30-15 in their planning and investment decisions.

Executive Order S-01-07

On January 18, 2007, then-Governor Schwarzenegger signed Executive Order S-01-07, which mandates that a State-wide goal be established to reduce carbon intensity of California's transportation fuels by at least 10 percent by 2020. The Order also requires that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California.

Executive Order S-03-05

On June 1, 2005, then-Governor Schwarzenegger signed Executive Order S-03-05, which established total GHG emission targets. Specifically, emissions are to be reduced to year 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (Cal-EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also directed to submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts.

To comply with the Executive Order, the Secretary of the Cal-EPA created a Climate Action Team (CAT) made up of members from various State agencies and commissions. In March 2006, CAT released their first report. In addition, the CAT has released several "white papers" addressing issues pertaining to the potential impacts of climate change on California.

Executive Order S-13-08

Then-Governor Arnold Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The Executive Order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise, and directs state agencies to take specified actions to assess and

[17] California Air Resources Board. *Frequently Asked Questions about Executive Order B-30-15, 2030 Carbon Target and Adaptation*. April 29, 2015. Available at: http://www.arb.ca.gov/newsrel/2030_carbon_target_adaptation_faq.pdf. Accessed June 2016.

plan for such impacts, including requesting the National Academy of Sciences to prepare a Sea Level Rise Assessment Report, directing the Business, Transportation, and Housing Agency to assess the vulnerability of the State's transportation systems to sea level rise, and requiring the Office of Planning and Research and the Natural Resources Agency to provide land use planning guidance related to sea level rise and other climate change impacts.

The order also required State agencies to develop adaptation strategies to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. The adaption strategies report summarizes key climate change impacts to the State for the following areas: public health; ocean and coastal resources; water supply and flood protection; agriculture; forestry; biodiversity and habitat; and transportation and energy infrastructure. The report recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

Renewable Portfolio Standard

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

On October 7, 2015, Clean Energy and Pollution Reduction Act (SB 350) was signed into law, which sets two climate change-related goals. One goal is a 50 percent increase in building energy efficiency. The other goal is for the State's utility companies to meet a target of 50 percent of their total power supply from renewable energy sources. Both goals are to be met by the year 2030.

The RPS set forth by SB 350 builds upon California's existing commitment to renewable energy. Prior legislation set a goal of a 33 percent RPS, requiring utilities to source at least 33 percent their energy supply from renewable sources like wind, solar, geothermal and biogas by the year 2020. The 33 percent RPS goal has been credited with spurring substantial development in solar infrastructure within California.

CEQA Analysis of GHG Emissions

SB 97, signed in August 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. The bill directs the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, by July 1, 2009.

As directed by SB 97, the Governor's Office of Land Use and Climate Innovation amended the CEQA Guidelines, effective March 18, 2010, to provide guidance to public agencies regarding the analysis and mitigation of GHG emissions and the effects of GHG emissions in draft CEQA documents. The amendments include revisions to the *Appendix G Initial Study Checklist* that incorporates a new subdivision to address project-generated GHG emissions and contribution to

climate change. The new subdivision emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. In addition, the revisions include a new subdivision to assist lead agencies in determining the significance of project related GHG emissions. Under the revised CEQA Appendix G checklist, an agency would consider whether the project will generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and whether the project conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

Guidance on determining the significance of impacts from GHG emissions is also provided in the SB 97 amendments. The guidance suggests the lead agency make a good-faith effort, based on available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project. When assessing the significance of impacts from GHG emissions on the environment, lead agencies can consider the extent to which the project may increase or reduce GHG as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance determined applicable to the project, and/or the extent to which the project complies with adopted regulations or requirements to implement a State-wide, regional, or local plan for the reduction or mitigation of GHG emissions. When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

Under the SB 97 amendments, if GHG emissions of a project are determined to be significant, feasible means of mitigating GHG emissions, such as the following, shall be applied:

- Measurement of the reduction of emissions required as part of the lead agency’s decision;
- Reductions in emissions resulting from project through project features, design, or other measures;
- Off-site measures, including offsets, to mitigate a project’s emissions;
- Measures that sequester GHG gases; and
- If a GHG reduction plan, ordinance, regulation, or other similar plan is adopted, mitigation may include project-by-project measures, or specific measures or policies found in the plan that reduces the cumulative effect of emissions.

Sustainable Communities and Climate Protection Act

In September 2008, SB 375, known as the Sustainable Communities and Climate Protection Act of 2008, was enacted, which is intended to build on AB 32 by attempting to control GHG emissions from cars and light-duty trucks by curbing sprawl. SB 375 enhances CARB's ability to reach goals set by AB 32 by directing CARB to develop regional GHG emission reduction targets to be achieved by the State's 18 metropolitan planning organizations (MPOs). Under SB 375, MPOs must align regional transportation, housing, and land-use plans and prepare a "Sustainable Communities Strategy" (SCS) to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its GHG reduction targets. SB 375 provides incentives for creating walkable and sustainable communities and revitalizing existing communities, and allows home builders to get relief from certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Furthermore, SB 375 encourages the development of alternative transportation options, which will reduce traffic congestion.

Clean Electricity

Clean Electricity (SB 1020) codifies into law a state policy that eligible renewable energy resources and zero-carbon resources supply: 1) 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent by December 31, 2040, and 100 percent by December 31, 2045; and 2) 100 percent of electricity procured to serve all State agencies by December 31, 2035. To achieve these objectives, SB 1020 requires that CARB and the California Energy Commission (CEC) use unspecified programs authorized under existing statutes and employ measures to ensure that implementation of the policy does not cause increases in GHG emissions elsewhere, a concept also known as leakage.

Short-lived Climate Pollutants

SB 1383 establishes specific targets for the reduction of short-lived climate pollutants (SLCPs) (40 percent below 2013 levels by 2030 for CH_4 and HFCs, and 50 percent below 2013 levels by 2030 for anthropogenic black carbon) and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.[18]

Local

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks

[18] CARB. Final Short-Lived Climate Pollutant Reduction Strategy (March 2017). https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final. Accessed September 11, 2025.

and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, policies and programs that affect greenhouse gas and energy aspects of the project. Regarding greenhouse gas emissions, the following are strategies/actions related to this project from the CAP:

Strategy 9: Carbon Sequestration Considerations in Planning and Development. Incorporate greenhouse gas emissions reduction and carbon sequestration goals into existing policies, programs, and development review and permitting processes to maximize landscape-scale greenhouse gas reduction benefits while supporting sustainable growth patterns.

Action 9.1: Identify countywide greenhouse gas emissions reduction and sequestration goals, adopt a CEQA significance threshold for greenhouse gas emissions to provide a consistent standard for evaluating development projects, and amend land use planning and permitting processes to ensure land development minimizes greenhouse gas emissions and optimizes natural carbon sequestration processes.

Action 9.2: Evaluate the feasibility of establishing a countywide carbon offset and sequestration program.

City of Clearlake 2040 General Plan

The *2040 General Plan Update* policies and programs relating to GHG emissions, climate change, and energy that are applicable to the Proposed Project are presented below.

Circulation Element

Policy CI 1.1.1	Maintain roadways and circulation improvements to ensure safe, energy efficient, and convenient daily travel for pedestrians, bicyclists, transit users and drivers as Clearlake grows.
Policy CI 1.3.2	Improve travel safety, accessibility and energy efficiency.

Conservation Element

Policy CO 3.3.1	The City should promote the use of non-motorized transportation to reduce carbon monoxide and carbon dioxide levels.
Policy CO 6.1.1	The City should require the use of energy conservation features and clean alternative energy use in new construction and renovation of existing structures in accordance with state law.
Policy CO 7.1.1	The City should conform to the goals, objectives, policies, and programs outlined in a Climate Action Plan to reduce citywide greenhouse gas emissions.

Housing Element

Program HO 2.6.1.1 Support of Existing Energy Conservation Programs. The City will continue to support residential energy conservation programs offered by Pacific Gas and Electric Company, North Coast Energy Services, and others. This support will include referrals to these programs for homeowners expressing interest in energy conservation, as well as placement of brochures (if available) for such programs at City offices. The City will also review the feasibility of joining the County in developing a stronger housing rehabilitation program that includes energy conservation measures.

Program HO 2.6.1.2 Implementation of Energy Conservation Standards. The City will continue to implement the energy conservation standards under Title 24 of the California Code of Regulations, as required by State law. The City will continue to provide information at the permit counter from the California Energy Commission on compliance with Title 24 and other energy conservation techniques.

Policy HO 2.6.2 The City will promote energy conservation through its land use planning and development standards.

Program HO 2.6.2.2 Energy Conservation for New Residential Development: Through the City's housing rehabilitation program and design review process, the City will encourage additional energy conservation measures with respect to the siting of buildings, landscaping, and solar access.

Lake County Air Quality Management District

The LCAQMD maintains the air quality conditions in Lake County through a robust program of plans, regulations, enforcement, and technical innovations that are described in depth in Chapter 4.2 of this EIR. All projects under the jurisdiction of the LCAQMD are required to comply with all applicable LCAQMD rules and regulations, which include, but are not limited to, the following:

- Chapter II, Prohibitions and Standards
    - Article I, Visible Emissions
    - Article II, Particulate Matter Emissions
    - Article IV, Other Emission or Contaminants
        - Part III, Demolition, Renovation, and Removal
        - Part V, Roadways and Surfacing Standards
- Chapter IV, Permits
    - Article I, Authority to Construct
    - Article II, Permit to Operate

4.6.4 Impacts and Mitigation Measures

This section describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential impacts related to greenhouse gases, climate change, and energy.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact related to GHG emissions, climate change, or energy may occur if the proposed project would result in any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with, or obstruct, a state or local plan for renewable energy or energy efficiency.

Because the LCAQMD has not adopted CEQA thresholds relating to GHGs, the BAAQMD thresholds are utilized in this EIR.

BAAQMD adopted updated CEQA Air Quality Guidelines On April 20, 2022. The 2022 CEQA Air Quality Guidelines are designed to provide recommended procedures to evaluate potential air quality and climate impacts during the environmental review process for land use projects, consistent with CEQA requirements. The 2022 Guidelines contain instructions and examples for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. They focus on generated emissions of CAPs and precursors, odors, toxic air contaminants, and GHGs from local plans and projects.

The Guidelines provide two methods for lead agencies to assess a project's potential impacts: screening criteria and thresholds of significance. For GHG emissions, the 2022 BAAQMD CEQA Guidelines recommend evaluating the climate impacts of land use projects based on the extent to which a project's design elements would provide a "fair share" reduction in GHG emissions. The BAAQMD CEQA Guidelines provides two possible approaches to assess this. Under Approach A, projects that incorporate certain minimum design elements are considered to have less-than-significant climate impacts.

There are four minimum design elements outlined in Approach A of the BAAQMD CEQA Guidelines, which are summarized below.

Buildings

- The project will not include natural gas appliances or natural gas plumbing.
- 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.

Transportation

- The project will achieve a reduction in project-generated vehicle miles traveled (VMT) 15% below the existing VMT per capita.
- The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Alternatively, under Approach B, the BAAQMD states that a project will have a less-than-significant impact relating to GHG emissions if it is consistent with a local GHG reduction strategy that meets CEQA Guidelines Section 15183.5(b) requirements. Because there is no local GHG reduction strategy, the Proposed Project is evaluated under Approach A.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of a maximum of 540,000 square feet of commercial building area and three dwellings, using the assumptions of the General Plan (see Section 4.9, Land Use). Complete buildout of the project site, however, would be conducted over a long period of time beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Construction and operational GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.29 software. Construction GHG emissions from on- and off-road vehicle operation and stationary sources emissions from operation of air compressors and generators were estimated for each construction phase. Modeling assumed that construction would begin in 2026 and be completed (with the Project in operation) by 2032. This

is a worst-case scenario to provide conservative emissions estimates as the CalEEMod model assumes emissions are reduced over time with improving technologies and stricter regulations. However, the project could occur over a more extended time period. The following assumptions were made for the project construction modeling:

- Approximately 11,280 square feet of existing buildings would be demolished;
- Approximately 48,550 cubic yards of soil would be imported during the grading and linear excavation phases;
- Approximately 22,098 cubic yards of material would be exported during the site preparation phase;
- Approximately 30.7 acres would be paved as part of the construction process.

The model estimates emissions for a variety of sources, including transportation, electricity use, natural gas use, and solid waste disposal. Project-specific construction CalEEMod inputs are provided in Appendix D.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to greenhouse gases, climate change, and energy is based on implementation of the Proposed Project in comparison to existing conditions and the standards of significance presented above, as compared to General Plan build-out of the site. Where mitigation is identified, the entity grading, constructing, or otherwise developing the site or a portion of the site (the City, a developer, etc.) is responsible for implementation of the mitigation measure, unless otherwise noted.

4.6-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (*Less than Significant with Mitigation*)

GHG emissions from the Proposed Project were estimated using the CalEEMod emissions model. The CalEEMod model estimated the total GHG construction and operational emissions associated with the Proposed Project development (see section 4.2 Air Quality and Appendix D of this EIR). Table 4.6-1 presents the results of the CalEEMod model run.

Construction GHG Emissions

Based on results from the CalEEMod model run, maximum project construction GHG emissions for a calendar year would be approximately 3,032 metric tons CO2e for the assumed construction period. Mitigation measures applied to reduce air pollutant emissions from construction emissions, which are largely related to dust control, would have no impact on GHG emissions.

Table 4.6-1 Project GHG Emissions

GHG Emission Type	Unmitigated Emissions (metric tons CO_2e)	Mitigated Emission (metric tons CO_2e)
Construction[1]	3,032	3,032
Operational[2]	64,664	64,016

[1] Maximum GHG emissions for calendar year
[2] Annual emissions

Source: California Emissions Estimator Model 2022.1.1.29

Construction emissions would occur only during construction work and would cease once work is completed. Though construction activity may increase or decrease for a given year because of market demand, the average amount of construction undertaken does not tend to increase over time, according to historical construction fleet emissions data. For this reason, even without mitigation, the amount of annual GHG emissions resulting from construction is expected to decrease over time as a result of improving fuel efficiency and the implementation of existing regulations, such as the Low Carbon Fuel Standard and the regulation for In-Use Off-Road Diesel Fueled Fleets, which applies to all self-propelled -

engine vehicles (except on-road two-engine sweepers). The overall purpose of the Off-Road Regulation is to reduce emissions of NO_X and particulate matter from off-road diesel vehicles operating within California. The Off-Road Regulation imposes limits on idling and requires a written idling policy. It also requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or by installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). Compliance with the Off-Road Regulation, particularly the idling limitations, is expected to lead to an incidental reduction in GHG emissions, though the amount of this reduction cannot be determined.

As discussed in Chapter 4.2 Air Quality, Mitigation Measure 4.2-1 (which addresses NO_X emissions from construction) would reduce construction GHG emissions. While the effectiveness of the above measures cannot be precisely quantified, and no quantified thresholds applicable to GHG construction emissions are available, it is expected that GHG emissions would be reduced to a level that is considered less than significant with implementation of the measures and applicable regulations.

Operational GHG Emissions

Project operation, mainly through vehicle traffic, would be a source of GHG emissions. As indicated in Table 4.6-1, operational GHG emissions resulting from development under the Proposed Project would be approximately 64,664 metric tons CO2e annually under unmitigated conditions (i.e., without implementation of any reduction measures). To estimate mitigated project conditions, the CalEEMod run incorporated the following project features and regulations that would reduce GHG emissions.

- Limit heavy-duty diesel vehicle idling
- Provide pedestrian network improvements
- Provide bike parking
- Provide traffic calming measures
- Provide real-time transit information
- Required project contributions to transportation infrastructure improvements
- Require energy efficient residential boilers
- Require energy efficient commercial packaged boilers
- Install electric ranges in place of gas ranges
- Require all-electric development
- Design water-efficient landscapes
- Wildfire resilience and management
- Use low-VOC paints
- Limit wood-burning devices and natural gas/propane fireplaces in residential development

With incorporation of these features as identified in Mitigation Measure 4.2-3 in the Air Quality section of this EIR, estimated operational GHG emissions would be reduced to approximately 64,016 metric tons CO2e annually, an approximately one percent reduction in GHG emissions from unmitigated levels of 64,664 metric CO2e. Most of the decrease comes from mobile emissions, associated with an approximately 6.8 percent decline in VMT.

The Guidelines provide two methods for lead agencies to assess a project's potential impacts: screening criteria and thresholds of significance. For GHG emissions, the 2022 BAAQMD CEQA Guidelines recommend evaluating the climate impacts of land use projects based on the extent to which a project's design elements would provide a "fair share" reduction in GHG emissions. Under BAAQMD's Approach A, projects that incorporate certain minimum design elements are considered to have less-than-significant climate impacts as summarized below. A description of the Proposed Project's incorporation of these features is shown in *italics* next to each criterion.

Buildings

- The project will not include natural gas appliances or natural gas plumbing. *The Proposed Project would not include any natural gas appliances or natural gas plumbing because the City of Clearlake does not have natural gas service from PG&E or another utility provider. The Project therefore meets this criterion.*

- 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. *As a mixed-use project that integrates housing and commercial services, active transportation modes, traffic calming measures, all-electric residential development, and energy-efficient commercial development, as shown in Mitigation Measure 4.2-3 of the Air Quality section of this EIR, the Proposed Project would not result in any wasteful, inefficient, or unnecessary energy use. The Project's all-electric development would be served by both on-site solar systems as well as PG&E as the electricity provider. PG&E now acquires 100 percent of its energy from greenhouse gas-free sources.[19] The Project therefore meets this criterion.*

[19] PG&E Corporation. "News & Events: PG&E Customers' Electricity 100% Greenhouse Gas-Free in 2023." April 22, 2024. News & Events: PG&E Customers' Electricity 100% Greenhouse Gas-Free in 2023. Accessed August 29, 2025.

Transportation

- The project will achieve a reduction in project-generated vehicle miles traveled (VMT) 15% below the existing VMT per capita. *The Project would achieve a reduction in VMT 15 percent below the existing VMT per capita as noted in the Traffic Impact Study (Appendix L) and meets this criterion.*

- The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2. *With implementation of Mitigation Measure 4.6-1, the Project would achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.*

General Plan Evaluation

The General Plan EIR found that the build-out of the General Plan, which included the project site as a regional shopping center, would result in less than significant impacts related to greenhouse gas emissions with the implementation of a Climate Action Plan by the year 2017 that includes "enforceable, measurable local actions that can be demonstrated to achieve the purpose of reducing citywide per-capita greenhouse gas emissions to 1990 levels by 2020" (Mitigation GHG-1). The City does not currently have a Climate Action Plan in place but is part of a regional effort through Lake County's Climate Adaptation Plan (CAP) which was adopted by the city in January 2026. This CAP aims to identify vulnerabilities to climate change and develop strategies to build resilience in the region, which includes the City of Clearlake, by developing a framework for adaptation, targeting focus areas with high needs, and engaging the community through a collaborative process.

Conclusion

Given that the Proposed Project includes the criteria above (including with Mitigation Measure 4.6-1), the Project would reduce GHG emissions in comparison with the General Plan's projected buildout of the site, resulting in an impact that is ***less than significant with mitigation***.

Mitigation Measure(s)

In addition to Mitigation Measures 4.2-1, the following measures shall be implemented:

Mitigation Measure 4.6-1. Implement Off-Street Electric Vehicle Requirements in CalGreen Tier 2. Prior to issuance of building or improvement permits, the project shall meet the following requirements as applicable:

Residential Requirements:

Hotels, motels, and multifamily projects with 20 or more units:

- EV Ready: 55% of all off-street parking spaces must have a low-power Level 2 (208/240-volt, 20-amp) charging receptacle installed.

- Installed chargers: 20% of all off-street parking spaces must be equipped with installed Level 2 (208/240-volt, 40-amp) chargers.

Multifamily projects and hotels or motels with fewer than 20 units:

- EV Ready: 55% of all off-street parking spaces must be equipped with low-power Level 2 charging receptacles.

- Installed chargers: For projects with fewer than 20 units, the code requires installed chargers only if there are 20 or more parking spaces for residents and guests, in which case 20% must be equipped with Level 2 chargers.

Nonresidential Requirements

Given that the total number of parking spaces for the overall Project is over 200, project development must meet the following criteria:

Total number of parking spaces (201 and over):

- EV Ready: 45% of the total off-street parking spaces must be EV capable.

- Installed chargers: 33% of the total EV capable spaces must be provided with installed Level 2 EVSE (Electric Vehicle Supply Equipment) chargers.

4.6-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (*Less than Significant with Mitigation*)

To date, Lake County has not adopted any specific GHG reduction strategies or climate action plans, although a regional Climate Adaptation Plan is currently under development. In developing its service population GHG threshold, BAAQMD used the requirements of AB 32 in determining the level at which its threshold should be set. Consequently, since the Proposed Project would result in a major increase in GHG emissions above BAAQMD thresholds, it would conflict with the AB 32 Scoping Plan for reducing GHG emissions.

General Plan Evaluation

The General Plan EIR found that subsequent development allowed under the General Plan may result in new projects that would increase GHG emissions in the City. However, the General Plan EIR found that implementation of Conservation Element policies and programs that address water and energy efficiency would result in lower GHG emissions from energy and water consumption. The Proposed Project would be subject to the Geneal Plan Conservation Element policies, which are largely codified in the City's Municipal

Code. The City adopted the county-wide Climate Action Plan in January, 2026. This CAP incorporates an analysis of vulnerabilities to climate change and develop strategies to build resilience in the region by developing a framework for adaptation, targeting focus areas with high needs, and engaging the community through a collaborative process. The project is consistent with the CAP in that many efforts are proposed to reduce greenhouse gas emissions by creating a mix of residential and commercial uses that will reduce vehicular emissions as compared to the General Plan alternative for a regional shopping center with no residential use.

Conclusion

Implementation of Mitigation Measure 4.2-3 would reduce GHG emissions during operations under the Proposed Project, and as noted above, the emissions would qualify for less than significant under the Approach A of the BAAQMD CEQA Guidelines, making this impact ***less than significant with mitigation***.

Mitigation Measure(s)

Implement Mitigation Measures 4.2-1 and 4.6-3.

4.6-3: Result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (*Less than Significant with Mitigation*)

The Proposed Project would include development of both commercial and residential uses. Energy use associated with operation of the Project would be typical of such uses, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC) systems, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the Project would result in transportation energy use associated with vehicle trips generated by residents, visitors, and employees travelling to and from the project site. Energy use associated with construction under the Proposed Project, as well as building energy use and transportation energy use are discussed separately below.

Construction Energy Use

Construction of the Proposed Project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid. Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity

would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand.

Construction of the Proposed Project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections or exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist. Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location.

In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation identified in Mitigation Measure 4.2-1. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines being the least efficient, and Tier 4 being the most efficient. The Proposed Project is also required to use Tier 4 Final certified diesel engines pursuant to Mitigation Measure 4.2-1.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet's average index target in a given year, the fleet may instead choose to comply with the Best Available Control Technology (BACT) requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements. Construction under the Project would be required to comply with

such regulations, which would ensure that construction equipment meets all State efficiency requirements.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand for oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable LCAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the Proposed Project. Based on the above, the temporary increase in energy use occurring during construction of the Proposed Project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the Proposed Project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Building Energy Demand

The Proposed Project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring residential projects to meet 100 percent of their electricity needs through rooftop solar. Therefore, residential development associated with the Proposed Project would include rooftop solar to meet 100 percent of each project's electricity demand.

The 2022 Building Energy Efficiency Standards also require that newly constructed non-residential buildings, including grocery stores, offices, financial institutions, unleased tenant space, retail space, schools, warehouses, auditoriums, convention centers, hotel/motels, libraries, medical office building/clinics, and theaters, be developed to include a solar PV system. Therefore, a portion of the electricity demand associated with the nonresidential development of the Proposed Project would be met by on-site renewable energy.

State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS require utilities, including PG&E, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Based on the air quality modeling prepared for the Proposed Project, including adjustments to account for no use of natural gas, the Project is anticipated to result in increased mitigated electricity consumption of approximately 15.86 GWh annually during operations. It is noted that, compared to the electricity consumption for all of Lake County which used 437.2 GWh in 2023.[20] The Proposed Project's contribution would therefore represent an estimated 3.62 percent increase in electricity demand. Although the project would increase electricity demand in the project area, the increased demand is not anticipated to conflict with the PG&E's ability to meet the RPS requirements or exceed PG&E's capacity such that the Proposed Project's energy demands would not be met. Increased energy usage does not necessarily mean that a project would have an impact related to energy resources.

Based on Appendix F of the CEQA Guidelines, a proposed project would result in an impact related to energy resources if a project would result in inefficient use or waste of energy. As stated above, the Proposed Project would be required to comply with the efficiency standards set forth in the CBSC, CALGreen Code, Building Energy Efficiency Standards, and by CARB, and the Proposed Project would not conflict or obstruct with any State or local plans related to renewable energy. With regard to landscaping and maintenance equipment, AB 1346 would require that all small off-road engines are all-electric by the time that the Proposed Project is operational. Given that electricity from PG&E is generated from renewable sources, the use of electric maintenance equipment would be considered more energy efficient than diesel- or gas-powered maintenance equipment.

Transportation Energy Demand

The average fuel economy for the U.S. passenger vehicle fleet was 27.1 miles per gallon (mpg) in 2023, the most recent year such data is available.[21] The Project is in a pre-screened zone for VMT with an average of 27.1 mpg and an annual mitigated VMT of approximately 23,275,746 miles for the Project would result in the consumption of approximately 20,450 barrels of gasoline a year. California is estimated to consume approximately 638 million barrels of petroleum per year.

Based on annual consumption within the State, vehicle trips generated by the Proposed Project would result in a 0.0032 percent increase in the State's current consumption of gasoline. The calculation above is likely an overestimate, as the estimate does not account for the increasing ownership of electric vehicles. California leads the nation in registered alternatively fueled and hybrid vehicles, passing the States Advanced Clean Cars II rule which required 100 percent of new passenger car and light truck sales to be zero-emission vehicles by the 2035 model year. Improvements in vehicle efficiency and fuel economy

[20] California Energy Commission. "Electricity Consumption." https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed August 29, 2025/
[21] US Environmental Protection Agency. "Highlights of the Automotive Trends Report." November 25, 2024. U.S. Environmental Protection Agency webpage on trends in automobile use.. Accessed August 29, 2025.

standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The 2022 CBSC also requires new developments to include the necessary electrical infrastructure for EV charging stations.

However, the future of these regulations is uncertain due to a currently changing political and regulatory environment. The US Congress has voted to revoke them, and President Trump signed legislation in July 2025 ending federal tax credits for EVs, a move likely to impact EV sales. A joint report of the CARB, CEC, and several other state agencies, outlines potential state policy initiatives in response to recent federal policy shifts revoking certain zero-emissions vehicle adoption incentives.[22]

The Proposed Project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, build-out of the Project would involve the provision of sidewalks throughout the project site, as well as multi-use trails to allow for passive recreation, such as walking, jogging, and bicycling. These improvements would provide pedestrian and bicycle connectivity within the project site, thereby helping to discourage driving and reducing vehicle trips and associated transportation energy demand.

General Plan Evaluation

The General Plan EIR found that subsequent development allowed under the General Plan may result in new projects that would increase GHG emissions in the City. However, the General Plan EIR found that implementation of Conservation Element policies and programs that address water and energy efficiency would result in lower GHG emissions from energy and water consumption. The Proposed Project would be subject to the Geneal Plan Conservation Element policies, which are largely codified in the City's Municipal Code.

Conclusion

Based on the above, the Proposed Project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the Proposed Project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency provided that the project implements Mitigation Measure 4.2-1. Thus, impacts would be considered ***less than significant with mitigation***.

Mitigation Measure(s)

Implement Mitigation Measure 4.2-1.

[22] CARB. *Report to the Governor: In Response to Executive Order N-27-25 On Zero-Emission Vehicle Deployment*. California Air Resources Boad report to the Governor on Zero-emission Vehicle adoption. . Accessed September 18, 2025.

4.6-4: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency (*Less than Significant*)

The Proposed Project is a mixed-use development that promotes energy efficiency by mixing residential uses with services that residents need, and includes sidewalks, pathways, and bike lanes throughout the development, supporting safe and convenient travel for non-motorized uses.

The Proposed Project would be implemented in accordance with the 2022 Title 24 Building Energy Efficiency Standards, CalGreen Code, and other codes as described in more detail in impact discussion 4.6-3 above. The new standards require solar photovoltaic systems for new homes and require use of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

General Plan Evaluation

Although the General Plan EIR found that implementation of the General Plan would result in the commitment of limited, renewable resources such as lumber and water and irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements, the General Plan contains several objectives and policies that promote renewable energy under Goal CO 6 of the Conservation Element. Future development under the General Plan is also required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. In compliance with CALGreen, the State's Green Building Standards Code, future development would be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. The Plan would also encourage future development to incorporate low impact design (LID) principles and water efficient best-management practices into landscape plans. These proposed policies and actions are described in detail in the Greenhouse Gas Emissions and Transportation and Traffic chapters of this General Plan EIR. Implementation of these policies and actions would minimize increased consumption of fossil fuels that would occur with build-out of the General Plan. In addition, by providing for a greater number of jobs, the General Plan seeks to improve Clearlake's jobs-to-housing balance, which would allow more Clearlake residents to work within Clearlake and avoid GHG emissions associated with long commutes.

The Proposed Project is an example of the jobs-to-housing balance of development that the General Plan seeks to promote and, as demonstrated in the Table 4.6-2 below, the Proposed Project is consistent with the City of Clearlake General Plan policies for reducing energy consumption and promoting energy efficiency. Furthermore, the General Plan EIR found that the General Plan would not represent a large commitment of nonrenewable resources in comparison to a business-as-usual scenario.

Conclusion

The Proposed Project would be consistent with State and local policies for energy efficiency, and this impact would be ***less than significant***.

Mitigation Measure(s)

None required.

Table 4.6-2 City of Clearlake General Plan 2040 Consistency Analysis - Energy

General Plan Element, Policy and/or Program		Consistency Analysis
Policies		
CI 1.1.1	Maintain roadways and circulation improvements to ensure safe, energy efficient, and convenient daily travel for pedestrians, bicyclists, transit users and drivers as Clearlake grows.	The Proposed Project is a mixed-use development that promotes energy efficiency by mixing residential uses with services that residents need, and includes sidewalks, pathways, and bike lanes throughout the development, supporting safe and convenient travel for non-motorized uses.
CI 1.3.2	Improve travel safety, accessibility and energy efficiency.	The Project includes pedestrian crossings, rapid rectangular flashing beacons (RRFBs), a pedestrian overpass across SR 53, and traffic calming measures to improve travel safety, accessibility, and efficiency.
CO 3.3.1	The City should promote the use of non-motorized transportation to reduce carbon monoxide and carbon dioxide levels.	The Project promotes energy efficiency by mixing residential uses with services, which allows for less vehicle travel and more active transportation that does not use carbon-based fuels.
CO 3.3.1	The City should promote the use of non-motorized transportation to reduce carbon monoxide and carbon dioxide levels.	The Project promotes energy efficiency by mixing residential uses with services, which allows for less vehicle travel and more active transportation that does not use carbon-based fuels.
CO 6.1.1	The City should require the use of energy conservation features and clean alternative energy use in new construction and renovation of existing structures in accordance with state law.	The Project incorporates the use of many energy conservation features as detailed in Mitigation Measure 4.6-3 of the Air Quality section of this EIR.
CO 7.1.1	The City should conform to the goals, objectives, policies, and programs outlined in a Climate Action Plan to reduce citywide greenhouse gas emissions.	The City adopted the county-wide Climate Action Plan in January of 2026.
HO 2.6.2	The City will promote energy conservation through its land use planning and development standards.	The Proposed Project incorporates the use of many energy conservation features that conform to and exceed Title 24 regulations as detailed in Mitigation Measure 4.6-3 of the Air Quality section of this EIR.
Programs		
HO 2.6.1.2	Implementation of Energy Conservation Standards. The City will continue to implement the energy conservation standards under Title 24 of the California Code of Regulations, as required by State law. The City will continue to provide information at the permit counter from the California Energy Commission on compliance with Title 24 and other energy conservation techniques.	The Proposed Project incorporates the use of many energy conservation features that conform to and exceed Title 24 regulations as detailed in Mitigation Measure 4.6-3 of the Air Quality section of this EIR.
HO 2.6.2.2	Energy Conservation for New Residential Development: Through the City's housing rehabilitation program and design review process, the City will encourage additional energy conservation measures with respect to the siting of buildings, landscaping, and solar access.	The Proposed Project incorporates the use of many energy conservation features that conform to and exceed Title 24 regulations as detailed in Mitigation Measure 4.6-3 of the Air Quality section of this EIR.

Cumulative Impacts and Mitigation Measures

Global climate change is, by nature, a cumulative impact. Emissions of GHG contribute, on a cumulative basis, to the adverse environmental effects of global climate change (e.g., regional and local sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the Proposed Project, the geographical context for global climate change in this EIR is limited to the State of California.

4.6-5 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs (*Less than Cumulatively Considerable with Mitigation*)

An individual project's GHG emissions are a small fraction of global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to GHG emissions are inherently considered cumulative impacts. Implementation of the Proposed Project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 and, to a lesser extent, other GHG pollutants, such as CH_4 and N_2O. Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. As shown in Table 4.6-1, based on the modeling conducted for the Proposed Project, construction of the project was estimated to generate maximum unmitigated GHG emissions of 3,032 $MTCO_2e$/year, and operational GHG emissions are estimated at 64,664 $MTCO_2e$/year.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. The City, LCAQMD, and BAAQMD do not have any adopted thresholds of significance for construction-related GHG emissions.

Operational emissions are ongoing and by their nature cumulative with other global GHG emissions. As discussed in impact discussion 4.6-1 above, using BAAQMD's CEQA Guidelines Approach A, the Project would less-than-significant climate impacts by way of electrifying the development, not including wasteful energy use in buildings, achieving a 15 percent reduction in VMT over the VMT per capita, and incorporating Mitigation

Measure 4.6-1 to achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Because the Project falls below the BAQQMD thresholds with design elements and mitigation and would reduce VMT as a mixed-used project compared to the General Plan buildout of the site as a regional shopping center, the Proposed Project would result in GHG emissions impacts that are ***less than cumulatively considerable with mitigation***.

Mitigation Measure(s)

Implement Mitigation Measures 4.2-1 and 4.6-1.

4.6-6 Cumulative impacts due to increased energy use (*Less than Cumulatively Considerable*)

With regard to energy usage, the California Public Utilities Commissions' Long Term Procurement Plan (LTPP) proceedings were established to ensure a safe, reliable, and cost-effective electricity supply in California. A major component of the LTPP proceedings addresses the overall long-term need for new system reliability resources, including the adoption of system resource plans. These resource plans will allow the California Public Utilities Commission to comprehensively assess the impacts of state energy policies on the need for new resources. As discussed above, several aspects of the Proposed Project would help manage the amount and efficiency of energy consumption and would ensure that the related consumption is not inefficient, wasteful or unnecessary or place a significant demand on regional energy supplies. The large-scale development of solar energy required of the Proposed Project would reduce electricity demand. The Project components would help reduce overall energy demand and would result in less-than-significant individual impacts. Therefore, impacts to energy resources resulting from the Proposed Project, combined with other past, present, or reasonably foreseeable future projects, would result in a ***less than cumulatively considerable*** contribution.

Mitigation Measure(s)

None required.

4.7 HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

4.7.1 Introduction

The Hazards, Hazardous Materials and Wildfire chapter of the EIR describes existing and potentially occurring hazards, hazardous materials and wildfire concerns within the project area. This chapter discusses potential impacts posed by these hazards to the environment, as well as to workers, visitors, and residents within the project area. The information contained in this analysis is based on the City of Clearlake 2040 General Plan Update and the General Plan Update Environmental Impact Report, as well as the following technical studies:

- Northern Area of the Site:
    - 2007 Phase I Environmental Site Assessment [1]
    - 2024 Phase 1 Environmental Site Assessment[2]
    - 2024 Phase II Subsurface Investigations[3]
    - 2008 Draft Geotechnical Engineering Investigation[4]
- Southern Area of the Site:
    - 2018 Limited Phase II Subsurface Investigation[5]
- Western Area Parcels:
    - 2024 Phase 1 Environmental Site Assessments for 6820, 6840, and 6860 Old Highway 53[6 &7]

These studies are available for review upon request of the City's Community Development Department. Archival research of federal, state, and local governmental natural resource and

[1] Krazan & Associates, Inc. "Phase I Environmental Assessment Report, Clearlake Development Properties, APNs 010-043-36, -38, and -039, 042-052-19, 042-121-25, 042-122-26, 042-123-11 and -31 and 042-124-26 and 042-124-30, Clearlake, California." May 23, 2007.
[2] Ramboll Americas Engineering Solutions. "Phase 1 Environmental Site Assessment, 6820 Old Highway 53, Clearlake, California, Assessor Parcel Numbers (APNs) 010-043-380 and 010-043-390." February 2024.
[3] Ramboll Americas Engineering Solutions, Inc. "Subsurface Investigations: 6820 and 6860 Old Highway 53, Clearlake, California, APNs 010-043-380, 010-043-390 and 010-031-050." September 2024.
[4] Moore Twining Associates, Inc. "Draft Geotechnical Engineering Investigation Proposed Home Depot Store Southwest of the Intersection of State Highway 53 and 18th Avenue, Clearlake, Lake County, California." February 22, 2008.
[5] AEI Consultants. "Limited Phase II Subsurface Investigation, 6885 and 7110 Old Highway 53, Clearlake, California 95422." April 26, 2018.
[6] Ramboll Americas Engineering Solutions. "Phase 1 Environmental Site Assessment, 6820 Old Highway 53, Clearlake, California, Assessor Parcel Numbers (APNs) 010-031-080 and 010-031-090." February 2024.
[7] Ramboll Americas Engineering Solutions. "Phase 1 Environmental Site Assessment, 6860 Old Highway 53, Clearlake, California, Assessor Parcel Numbers (APNs) 010-0311-050." February 2024.

environmental protection agencies was also used extensively in preparing the background information and analysis for this chapter, as described in the Methodology section of this chapter.

During the Notice of Preparation (NOP) comment period for this EIR, several concerns related to Hazards and Hazardous Materials were received, as follows:

Lake County Fire Protection District (LCFPD): Noted requirements for water flow and volume sufficient for fire suppression, hydrant installation, and emergency access requirements, as well as the function of LCFPD Station 71 and potential fire protection service needs. (July 18, 2024)
Comments from the LCFPD related to Fire District requirements are addressed in Impact Discussions 4.7-7 and 4.7-8 later in this chapter. Public service impacts for the Fire District are discussed in the Public Services chapter of this EIR. Comments from the County Environmental Health Division are addressed throughout this chapter, and an analysis of impacts is found in the Impact Discussions later in this chapter. NOP comments can be found in Appendix B of this EIR.

4.7.2 Existing Environmental Setting

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency.

The California Environmental Protection Agency (CalEPA), Department of Toxic Substances Control (DTSC), defines hazardous waste, as found in the California Health and Safety Code (HSC), section 25141(b), as follows:

> […] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

Krazan & Associates, Inc. performed a Phase I ESA for approximately the northern half of the project site, and Ramboll Americas Engineering Solutions also conducted a Phase 1 ESA for a large portion of the area previously investigated by Krazan & Associates, Inc Both investigations included site reconnaissance to identify any recognized environmental hazard conditions. AEI Consultants performed a Limited Phase II Subsurface Investigation for approximately the southern half of the site in 2018.

Project Location

The approximately 54-acre project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map, in Chapter 3 of this EIR). The Project site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west as shown in Figure 3-2, Project Location Map, in Chapter 3 of this EIR. Site topography is relatively flat to mildly sloping and approximately 1,385 feet above mean sea level.

Existing Site Uses

The Project site is primarily undeveloped and partially vegetated and remained undeveloped until 1958 when the site was developed as part of the Pearce Airport. The airport was operated until 1994 and included an approximately 2,500-foot-long paved runway. Since the airport's closure, the site has been used as a corporation yard by the City of Clearlake Public Works Department. The City's animal control facility is also located within the site. Site soils are largely disturbed and vegetation consists largely of ruderal species with scattered oak trees and woodlands throughout.

Existing Surrounding Uses

The existing land uses surrounding the Project site are as follows, as shown in Figure 3-4 of Chapter 3 of this EIR:

- North: Single-family residential, as well as a place of worship approximately 200 feet to the northwest.
- South: Single-family residential to the south and southwest and commercial uses, e.g., fast food, to the southeast.
- East: State Route (SR) 53 abuts the site's eastern boundary. Across SR 53 to the east are Adventist health care facilities, a private community center (Masonic Lodge), the Lake County Campus of Woodland Community College, government facilities, and commercial uses, including the Clear Lake Shopping Center and Walmart.
- West: Old Highway 53 abuts most of the western boundary of the Project site. To the west of Old Highway 53 are single- and multi-family residential uses, a park, a high school, and a small market. Existing uses in the central west area of the Project site include personal storage facilities, automotive uses, and other commercial/industrial uses.

Site Soils

A Custom Soil Survey was completed for the Project site using the United States Department of Agriculture National Resources Conservation Services (NRCS) Web Soil Survey program. The NRCS identifies the type and range of soils found in the Project site, which is summarized below in Table 4.7-1. Figure 4.7-1 presents the soils survey map. Also Figure 4.5-5 from the Geology and Soils chapter consists of a map that shows the locations of these soils types.

Table 4.7-1 NRCS Soil Series Information

Unit Symbol	Name	Source Material	Drainage	Percent of AOI
103	Asbill clay loam, 5-8% slopes	Residuum weathered from shale and siltstone	Well drained	29.3%
104	Asbill clay loam, 8-15% slopes	Residuum weathered from shale and siltstone	Well drained	2.2%
114	Benbridge-Sodabay loams, 8-15% slopes	Volcanic ash	Well drained	68.5%

The site is located within the Northern Coast Ranges Geomorphic Province and is underlain by sedimentary rocks formed from lake deposits that are Quaternary in age (up to 1.8 million years old). Surface geologic conditions consist of pebbly sandstone, conglomerate, and siltstones of the Cache Formation. Near-surface sediments are dominated by medium-dense to very dense sands and silty sands, below which medium-dense to very dense silty sands, sandy silts, clayey sands, and sands are encountered with some gravel and cobbles. Groundwater can be encountered at a depth greater than 26 to 50 feet below the ground surface and flows in a south-southwest direction toward Cache Creek, although perched groundwater can also be encountered at shallower depths depending on the time of year.

Site Reconnaissance

Table 4.7-2 summarizes the conditions encountered during the site reconnaissance for all of the referenced Phase 1 ESAs conducted in the project area.

Table 4.7-2 Summary of Phase 1 ESA Site Reconnaissance Observations

Feature	Observed	Not Observed
Structures (existing)	X	
Evidence of past uses (foundations, debris)	X	
Hazardous substances and/or petroleum products (including containers)	X	
Aboveground storage tanks (ASTs)	X	
Underground storage tanks (USTs) or evidence of USTs	X	
Evidence of underground pipelines		X
Strong, pungent, or noxious odors		X
Pools of liquid likely to be hazardous materials or petroleum products		X
Drums	X	
Unidentified substance containers	X	
Potential polychlorinated biphenyl (PCB) containing equipment	X	
Subsurface hydraulic equipment		X
Heating/ventilation/air conditioning (HVAC)		X
Stains or corrosion on floors, walls, or ceilings		X
Floor drains and sumps		X
Storm drains	X	
Pits, ponds, or lagoons		X
Stained soil and/or pavement	X	
Soil piles	X	
Stressed vegetation		X
Waste or wastewater discharges to surface or surface water on subject site (including stormwater)		X
Septic systems		X

Much of the project site is associated with the former Pearce Airfield. The central-western portion of the former airfield is occupied by two buildings, and the southwestern portion of the site is occupied by three buildings. These buildings and all others currently within the EIR project boundaries, which include the fire station, corporation yard and maintenance buildings, self-storage facilities, and Valley Glass, could be demolished eventually to accommodate buildout of the Airport Redevelopment Project. See Figure 4.7-3 for photos of all buildings.

Archival Research - Site History

Historical information was reviewed to develop a history of the previous uses on the Project site and surrounding area, in order to evaluate the Project site and adjoining properties for evidence of Recognized Environmental Conditions (RECs). Standard historical sources reviewed during the preparation of this report included the following, as available: aerial photographs, environmental records, and databases.

Aerial Photographs

According to a review of aerial photographs for the site, development of the site began around 1959. The review of historical aerial photographs yielded the following observations:

- 1942: The site was partially wooded with a few unpaved trails and an undiscernible feature near the center of the site that may have been a stack of felled logs.

- 1959: The subject site was vacant, and portions were forested. A landing strip was under construction, and two unpaved roads are visible onsite. The northern and eastern adjacent properties were vacant. The western portion of the northern adjacent property was occupied by residences, and the eastern portion of the northern adjacent property was vacant.

- 1973: The subject site contained an airfield. The eastern portion of the subject site contained three relatively small commercial buildings, and the central-western portion contained a relatively small structure. The eastern adjacent property was vacant, beyond which a large commercial building is visible. The western adjacent property was variously occupied by residential structures and vacant.

- 1982: Conditions on the subject site and the adjacent properties were relatively similar to those noted the 1973 aerial photograph except for: 1) the development of a commercial building visible in the southwestern portion of the subject site, 2) the development of two commercial buildings visible in the northeastern portion of the subject site (APNs 042-124-26 and -30), 3) the development of commercial buildings visible adjacent to the south of the subject site, 4) the development of a commercial building visible adjacent to the east of the subject site, and 5) the development of commercial building and additional residential structures visible adjacent to the west of the subject site.

- 1993: Conditions on the subject site and the adjacent properties were relatively similar to those noted in the 1982 aerial photograph, except for the development of a commercial building visible in the central-western portion of the subject site, two buildings on the east side, and four small structures on the northeast corner appeared to have been removed.

- 1998: Conditions on the subject site and the adjacent properties were relatively similar to those noted the 1993 aerial photograph except for: 1) the apparent demolition of former airport runway, 2) the development of additional commercial structures visible on the southern adjacent property, and 3) the development of additional commercial structures visible adjacent to the west of the subject site.

- 2006: Conditions on the subject site and the adjacent properties were relatively similar to those noted in the 1998 aerial photograph except for the development of a water park and additional commercial structures visible in the central area of the property.

Lake County acquired the Pearce Airfield property in 1950 and developed the property as an airfield sometime around 1958. It remained in operation until 1995 when it was transferred to the City of Clearlake Redevelopment Agency, at which time the City began to use the existing metal airport buildings for dry storage. Since 2010, the site has been used as the Clearlake City Corporation Yard for the exterior storage of construction, pavement, and landscaping debris, and

for general storage inside the metal buildings. During its operation, portions of the airfield were leased to businesses involved with servicing local private aircraft and hazardous materials, such as petroleum products and solvents, were used and stored at some of these businesses.

In response to a 1994 complaint by a local resident, the Pearce Airfield was inspected by Regional Water Board personnel and two sites, the Norris Carter & Sons Site and the Osaka Aviation Site were identified for further investigation. Aircraft painting was the primary business conducted at the Norris Carter & Sons Site, also referred to as the Norris Carter Site, which operated in the southwestern portion of the subject site for approximately 13 years. Aircraft were stripped of old paint on an exterior concrete pad and paint waste was washed into a stainless steel catch basin. Solids were filtered from the catch basin and the residual liquid was reused in the stripping operation. Additionally, a small Lake County Corporation Yard was previously located adjacent to the former Pearce Airfield in the northeastern area of the subject site.

Review of historical aerial photographs indicates the subject site was not utilized for agricultural purposes from at least 1959 until the present. Consequently, the use, storage, and application of agricultural chemicals at the subject site are not considered an environmental concern.

Environmental Records

As part of the Phase I ESAs, records were requested from regulatory agencies and databases searched to identify potentially hazardous conditions at or near the project site. The database search reviewed published lists from various federal, California, and local agencies for recognized environmental conditions (RECs).

Databases

There is a broad list of federal and state databases that provide information for sites with varying potential for risk from the possible existence of hazardous materials. There are numerous redundancies among these various databases. Below is a brief summary of each database and any associated records for the project area.

Envirostor

A review of the CalEPA DTSC Envirostor California cleanup sites database, available via the DTSC website, which tracks federal superfund sites, state response sites, voluntary cleanup sites, and school cleanup sites, indicated that no records of cleanup sites are on file with the DTSC for the subject site and the adjacent properties. See Figure 4.7-4 for an Envirostor map of the area.[8]

CERCLIS Data

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is a federal Environmental Protection Agency (EPA; as opposed to CalEPA) database

8 California Department of Toxic Substances Control. *Envirostor.* Available at https://www.envirostor.dtsc.ca.gov/public. Accessed March 22, 2025.

that contains information on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and individuals, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed for or on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The project site is not listed in this database.[9]

GeoTracker

GeoTracker is a database maintained by the State Water Resources Control Board (SWRCB) and used by the SWRCB, Regional Water Quality Control Boards, and local agencies to track and manage compliance data related to hazardous material discharges. This includes both authorized and unauthorized discharges to land or water, as well as unauthorized releases of hazardous substances from underground storage tanks (USTs). Geotracker identifies the project site as being the location of a Leaking Underground Storage Tank (LUST) cleanup site, with a status of "Completed – Case Closed" as of July 31, 1995.

See Figure 4.7-2 for the location of the cleanup site, which is in the southern area of the project boundary.[10] Table 4.7-3 displays the known hazardous material sites within 1.0 mile of the Project site with a description of the hazards provided. It should be noted that the Project site and the surrounding areas do not contain identified oil and gas monitoring wells.

National Priorities List

The National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites is EPA's database of more than 1,200 sites designated or proposed for priority cleanup under the Superfund program. NPL sites may encompass relatively large areas. The project site is not listed in this database. [11]

9 United States Environmental Protection Agency. Search Superfund Site Information. Available at: https://cumulis.epa.gov/supercpad/CurSites/srchsites.cfm. Accessed March 22, 2025.
10 California Department of Toxic Substances Control. Envirostor. Available at https://www.envirostor.dtsc.ca.gov/public. Accessed March 22, 2025.
11 United States Environmental Protection Agency. "Current NPL Updates: New Proposed NPL Sites and New MPL Sites." Available at https://www.epa.gov/superfund/current-npl-updates-new-proposed-npl-sites-and-new-npl-sites. Accessed March 23, 2025.

Table 4.7-3: Geotracker Hazards Materials Sites Within 1.0 Mile of Project Site

Site Name	Type	Cleanup Status	Address
Beacon #3693 (Former)	LUST cleanup site	Completed – case closed	15010 Lakeshore Drive
Beacon Station #36963	Cleanup Program Site	Completed – case closed	Lakeshore Drive
Burns Valley Elementary School	LUST cleanup site	Completed – case closed	3620 Pine Street
Clearlake Union 76	LUST cleanup site	Completed – case closed	14090 Lakeshore Drive
Dale's Shell & Automotive	LUST cleanup site	Completed – case closed	15021 Lakeshore Drive
Food & Liquor #177 (Former)	LUST cleanup site	Completed – case closed	14091 Lakeshore Drive
Former Pearce Aero	LUST cleanup site	Completed – case closed	7140 Old Highway 53
Konocti School Bus Yard	LUST cleanup site	Completed – case closed	Center Drive South
Notts Liquors #213	LUST cleanup site	Completed – case closed	14772 Lakeshore Drive
Redwood Oil Company Clearlake Bulk Plant (Former)	Cleanup Program Site	Open - Remediation	5200 Old Highway 53
Shaw's Shady Acres	LUST cleanup site	Completed – case closed	7805 Hwy 53
Sheriff's Substation	LUST cleanup site	Completed – case closed	7000 Hwy 53
Tru-Lube (Austin's Resort)	LUST cleanup site	Completed – case closed	14067 Lakeshore Drive

Toxics Release Inventory Program

The Toxics Release Inventory (TRI) is a US Environmental Protection Agency (EPA) program that tracks the management of over 650 toxic chemicals by industrial and federal facilities, requiring them to report annually on the releases and waste management of these chemicals. The project site and surrounding areas are not in the TRI. [12]

Resource Conservation and Recovery Act Information System

The Resource Conservation and Recovery Act Information System (RCRAInfo) is an EPA database that includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. Identification on this list does not indicate that there has been an impact on the environment. The Project site is not listed in this database.[13]

12 United States Environmental Protection Agency. "Toxics Release Inventory Program." Available at: https://www.epa.gov/toxics-release-inventory-tri-program. Accessed March 23, 2025.
13 United States Environmental Protection Agency. "RCRA Info Search." Available at: https://enviro.epa.gov/envirofacts/rcrainfo/search. Accessed March 23, 2025.

Agency Records

Regional Water Quality Control Board

On April 2007, the Central Valley Regional Water Quality Control Board (Regional Water Board or RWQCB) was contacted regarding potential records associated with leaking underground fuel tank (LUFT) sites and Spills, Leaks, Investigation, and Cleanup (SLIC) sites. According to Mr. Jim Donnally of the Regional Water Board, there were LUFT records associated with the southern area of the Project site at 7140 Old Highway 53 for Pearce Aero. The Pearce Aero LUFT site involved the removal and investigation of a 500-gallon waste oil UST which appears to have been previously located on private property to the west of the Pearce Airfield runway. The former Pearce Aero waste oil UST was granted a closure status by the Regional Water Board in a letter dated July 31, 1995, indicating effective remediation.

Lake County Division of Environmental Health (LCDEH)

A December 18, 1998, closure letter for USTs is on file with the LCDEH and indicates two USTs of unspecified size and contents were removed from the "Highlands Road Yard" (former Lake County Corporation Yard) located in the northeastern portion of the subject site on October 15, 1998. The closure letter indicates that the two USTs were removed under the supervision of the LCDEH and that soil samples were collected from beneath the former USTs. The closure letter states that based the LCDEH review of the laboratory report for soil samples collected from both ends of the tanks and their field observation, the LCDEH granted a closure status and "[...] will require no further action regarding the former underground storage tanks located the Clearlake site."

City of Clearlake Building Department

Files maintained by the Clearlake Building Department (CBD) were reviewed in the multiple Phase I's for the property. These records contained one permit for building demolition, which is a potentially hazardous activity. In addition to this demolition permit which dates from 2020, it is known that additional storage buildings were demolished in early 2025.

Wildland Fire Hazards

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is currently located within a Local Responsibility Area (LRA) per maps issued on January 22, 2025. (Figure 4.7-5). The site has some limited moderate fire hazards zones along the south and west sides of the site, but is primarily not located in a LRA fire hazard zone. The site is surrounded by Moderate, High, and Very High Fire Hazard Severity Zones, with Moderate Hazard on the immediate perimeter.

The Lake County Fire Protection District (LCFPD) has jurisdiction for the entire Local Responsibility Area (LRA), which spans 165 square miles (see Figure 4.12-1 from the Public Services and Utilities section of this EIR), including the project site. The closest staffed fire station

is located at 14815 Olympic Drive, approximately two miles north of the site. Due to its location in an LRA where wildland fire could be a threat to a State Responsibility Area (SRA), the project site is located within an area designated as a mutual threat zone between CAL FIRE and the LCFPD. Mutual threat zones exist primarily along LRA-SRA boundaries, wherein any fire is judged to be a threat to agencies having a common boundary. As such, mutual aid may be provided to the site, with CAL FIRE responding to wildland fires in the area as well.

There is an existing unstaffed fire station on the project site at 6905 Old Highway 53, Lake County Fire Protection District Station 71. This station is planned to be upgraded and staffed by LCFPD as the City develops and requires additional emergency services; there has been an increase in calls for service in the vicinity over the past three years. Active staffing and improvements to this building would further enhance the District's services to the site. Additional development impact fees, Measure D funding, and grants would help pay for expanded facilities that may be needed to serve the southern portion of the City, including the project site.

Any significant upgrades to the building would require approval by the City (as owner) and, under the Development Manual, an administrative use permit would be required (see Table 3-4, Allowable Uses by Zone District, in Chapter 3 of this EIR). The Preferred Site Plan shown in Figure 3-8 in Chapter 3 of this EIR identifies this area for redevelopment with mixed-use commercial/retail/multi-family; Station 71 could thus ultimately be developed with mixed uses or a staffed station.

Flooding Hazards

Flooding hazards are evaluated in Section 7.8 of the Hydrology and Water Quality chapter of this EIR.

Seismic Hazards

Seismic hazards are evaluated in Section 7.5 of the Geology and Soils chapter of this EIR.

Airport Safety Hazards

There are no airport safety hazard zones within the vicinity of the Project site. Lampson Field is a general aviation airport and the sole public use facility in Lake County. It is located 15 miles from the project site on the western edge of Clear Lake.

4.7.3 Regulatory Context

Many agencies regulate hazardous substances. The following discussion contains a summary review of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the EPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the EPA. The federal EPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and regulations govern hazardous materials.

Occupational Safety and Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Their goal was to make sure employers provide their workers with a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. The Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for the OSHA, to establish standards for workplace health and safety. OSHA, a division of the U.S. Department of Labor, oversees administration and enforces standards of the Act in all 50 states.[14]

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up abandoned sites when potentially responsible parties cannot be identified or located, or when they fail to act. EPA obtains satisfactory cleanup by private parties through various enforcement tools, including orders, consent decrees, and other small party settlements. EPA also recovers costs from financially-viable parties once a response action has been completed. EPA is authorized to implement the Act in all 50 states and the U.S. territories.[15]

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[14] *Occupational Safety and Health Act of 1970*, Public Law No. 91-596, 84 Statute 1590 (Dec. 29, 1970), codified at 29 U.S.C. § 651 et seq. (1970).

[15] *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*, Pub. L. No. 96-510, 94 Stat. 2767 (Dec. 11, 1980), codified at 42 U.S.C. § 9601 et seq. (1980).

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions, clarifications, and technical requirements were added to the legislation, including additional provisions for enforcement authority. Title III of SARA also authorized the Emergency Planning and Community Right-to-Know Act (EPCRA).[16] SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals, while emphasizing assistance to communities with meeting their responsibilities in preparing to handle chemical emergencies, and increasing public knowledge and access to information on hazardous chemicals present in their communities.[17]

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 gives EPA the authority to control hazardous waste from the "cradle-to-grave," including the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The federal Hazardous and Solid Waste Amendments (HSWA) are 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from UST storing petroleum and other hazardous substances. Other RCRA mandates include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive UST program.[18]

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) of 1974 was established to protect the quality of drinking water in the U.S. SDWA focuses on all waters actually or potentially designated for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments can be approved to implement these rules for EPA; some also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids.[19]

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[16] *Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)*, Pub. L. No. 99-499, 100 Stat. 1729 (Oct. 17, 1986), codified at 42 U.S.C. §§ 11001 et seq. (1986).
[17] *Superfund Amendments and Reauthorization Act of 1986*, Title III, § 305(a), Pub. L. No. 99-499, 100 Stat. 1613 (Oct. 17, 1986).
[18] *Resource Conservation and Recovery Act of 1976* (RCRA), Pub. L. No. 94-580, 90 Stat. 2795 (Oct. 21, 1976), codified at 42 U.S.C. § 6901 et seq. (1976).
[19] *Safe Drinking Water Act*, originally Pub. L. No. 93-523, 88 Stat. 1660 (Dec. 16, 1974), codified at 42 U.S.C. § 300f et seq. (1974).

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the TSCA, including, among others, food, drugs, cosmetics and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon and lead-based paint.[20]

U.S. Department of Transportation

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.[21]

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and specific loading and unloading procedures.

All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

State Regulations

The CalEPA and the California State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Within CalEPA, DTSC has primary regulatory responsibility for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste

[20] *Toxic Substances Control Act of 1976* (TSCA), Pub. L. No. 94-469, 90 Stat. 2003 (Oct. 11, 1976), codified at 15 U.S.C. § 2601 et seq. (1976).
[21] U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Hazardous Materials Regulations (HMR), codified at *Title 49 of the Code of Federal Regulations* (49 C.F.R.) Parts 100–185 (current edition). https://www.ecfr.gov/current/title-49. Accessed 2025-07-31.

Control Law (HWCL). DTSC may delegate enforcement to local jurisdictions that enter into agreements with the State agency. The following discussion contains applicable State laws.

Public Safety

Title 19 of the California Code of Regulations (CCR) is primarily focused on Public Safety. The Office of the State Fire Marshall (OSFM) is responsible for developing and reviewing these regulations (subject to the California Administrative Procedures Act) to ensure fire and life safety. The Regulations of the State Fire Marshal have been prepared and adopted for the purpose of establishing minimum standards for fire and life safety, buildings, and hazardous materials. OSFM designates and approves Fire Hazard Severity Zones in the State Responsibility Area. Other significant directives of OSFM include regulations surrounding the handling of explosives, fireworks, flammable or combustible liquids, extinguishing systems, the flammability of building or fabric materials, registration and application of flame retardants, petroleum storage, and hazardous liquid pipeline safety.

CalEPA also possesses authority for hazardous materials regulation under Title 19, establishing minimum standards for Hazardous Material Inventory and Response Plans and risk management planning and programming guidance under the California Accidental Release Prevention (CalARP).[22]

California Fire Code

The purpose of the California Fire Code is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.[23]

Defensible Space

Public Resources Code Section 4291 establishes maintenance requirements for "any person that owns, leases, controls, operates, or maintains any buildings or structures in, upon, or adjoining any mountainous or forest-covered lands, brush-covered lands, or grass-covered lands, or any land covered with flammable material." The property owner is required to maintain a defensible space of 100 feet from each side of the structure but not beyond the property line unless additional clearing is necessary to significantly reduce the risk of igniting the structure and clearing on the adjacent property is approved in writing by the adjacent landowner.[24]

[22] California Code of Regulations title 19 – Public Safety (2025). https://shared-govt.westlaw.com/calregs. Accessed August 8, 2025.
[23] Cal. Code Regs. tit. 24, part 9 - California Fire Code (2025). https://codes.iccsafe.org/content/CAFC2025P1. Accessed August 8, 2025.
[24] California Public Resources Code §4291, 2025. California Public Resources Code §4291, 2025. Accessed August 8, 2025.

California Building Code

The purpose of the California Building Code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.[25]

California Building Code (Chapter 7A)

California Building Code (Chapter 7A), *Materials and Construction Methods for Exterior Wildfire Exposure*, applies to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area (defined in the Code as Fire Hazard Severity Zones, which are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189). The purpose of Chapter 7A is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contribute to a systematic reduction in conflagration losses. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after December 1, 2005, are required to comply with California Building Code, Chapter 7A.

There are several notable changes in the 2025 California Building Code (CBC) which will be effective January 1, 2026. The California Wildland-Urban Interface (WUI) Code, which will be located in Part 7 of Title 24 starting in 2026, consolidates and supersedes the provisions previously found in Chapter 7A of the California Building Code (CBC). This new code combines all wildfire-related provisions, including those from Chapter 7A, Chapter 49 of the Fire Code, and Chapter 337 of the Residential Code, into a single, unified location in Part 7 of Title 24.

Wildland-Urban Interface Code

The Wildland-Urban Interface (WUI) Code, codified as Title 24, CCR Part 7, establishes building standards for new construction in areas where urban development meets or intermingles with wildland vegetation. The purpose of the WUI Code is to reduce the risk of structure ignition from wildfires by regulating building materials, design, and construction methods to improve fire resistance.

[25] Cal. Code Regs. tit. 24, pt. 2 – California Building Code (2025 Cal. Code Regs. tit. 24 - California Fire Code (2025). https://codes.iccsafe.org/content/CAFC2025P1. Accessed August 8, 2025.

Chapter 5 of the WUI Code contains regulations for Class 1 Ignition-Resistant Construction, including requirements for roofing, exterior walls, vents, windows, and other building components exposed to wildfire conditions. These standards apply to new buildings, additions, and certain remodels located within state-identified Fire Hazard Severity Zones or other designated wildland-urban interface areas.[26]

Hazardous Substances Information and Training Act

The Hazardous Substances Information and Training Act apply to hazardous substances which are present in the workplace as a result of workplace operations in such a manner that employees may be exposed under normal conditions of work or in a reasonably foreseeable emergency resulting from workplace operations. An emergency includes, but is not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or do result in a release of a hazardous substance into the workplace. Hazardous substances in the workplace in some forms and concentrations pose potential acute and chronic health hazards to employees who are exposed to these substances. Employers and employees have a right and a need to know the properties and potential hazards of substances to which they may be exposed, and such knowledge is essential to reducing the incidence and cost of occupational disease.[27]

Cortese List

Pursuant to California Government Code Section 65962.5(a), the DTSC shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the HSC.
2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the HSC.
3. All information received by the DTSC pursuant to Section 25242 of the HSC on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the HSC.[28]

California Vehicle Code

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and

[26] Cal. Code Regs. tit. 24, pt. 7, ch. 5 – California Wildland Urban Interface Code: Special Building Construction Regulations. https://codes.iccsafe.org/content/CAWUIC2025P1/chapter-5-special-building-construction-regulations. Accessed August 8,2025.
[27] California Labor Code, §6360-6363, 1980. California Labor Code, §6360-6363, 1980. . Accessed August 8, 2025.
[28] California Government Code, §65962.5, 2024. California Government Code, §65962.5, 2024.. Accessed August 8, 2025.

shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.[29]

Central Valley Regional Water Quality Control Board

The CalEPA and the Governor's Office of Emergency Services (CalOES) establish regulations governing the use of hazardous materials in California. Within CalEPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the Regional Water Quality Control Board is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The project site is within the jurisdiction of the Central Valley Regional Water Board. The Central Valley Regional Water Board's regulations are contained in Title 27 – Environmental Protection of the CCR. The DTSC, Central Valley Regional Water Board, and/or a local agency, known as the Certified Unified Program Agency (CUPA, see the section on Lake County Division of Environmental Health below), typically oversees investigation and cleanup of contaminated sites.[30]

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by CalOES, which coordinates the responses of other agencies, including CalEPA, CHP, California Department of Fish and Wildlife (CDFW), and the Regional Water Boards.[31]

California Health and Safety Code

The handling and storage of hazardous materials is regulated on the federal level by the U.S. EPA under CERCLA as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

The California HWCL, Chapter 6.5 of the California HSC, is administered by CalEPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the EPA

[29] California Vehicle Code, §31301, 1984. California Vehicle Code, §31301, 1984.. Accessed August 8, 2025.
[30] Cal. Code Regs. tit. 27, Environmental Protection, (2025). Cal. Code Regs. tit. 27, Environmental Protection, 2025. . Accessed August 8, 2025.
[31] "Hazardous Materials." California Governor's Office of Emergency Services. https://www.caloes.ca.gov/office-of-the-director/operations/response-operations/fire-rescue/hazardous-materials/. Accessed August 8, 2025.

approves the California program, both the state and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labelling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.[32]

In California, the underground storage of hazardous materials is regulated by Chapter 6.7 of the California HSC, per the Underground Storage of Hazardous Substances Act. Under section 25280, the underground tanks used for the storage of substances hazardous to the public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the State, which are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment. Chapter 6.7 establishes orderly procedures that will ensure that newly constructed underground storage tanks meet appropriate standards and that existing tanks be properly maintained, inspected, tested, and upgraded so that the health, property, and resources of the people of the state will be protected.[33]

The handling and storage of hazardous materials is regulated by Chapter 6.95 of the California HSC. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. The plan provides information to the local emergency response agency regarding the types and quantities of hazardous materials stored at a facility, and provides detailed emergency planning and response procedures in the event of a hazardous materials release. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan, which provides information on the potential impact zone of a worst-case release, and requires plans and programs designed to minimize the probability of a release and mitigate potential impacts.[34]

California Department of Public Health – Medical Waste Management Program

To protect the public and the environment from potentially infectious disease causing agents, the Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA, California HSC sections 117600-118360).[35] The MWMP permits and inspects all medical waste off-site treatment facilities and medical waste transfer stations. In addition to the treatment methods specifically allowed in the MWMA, there are alternative medical waste treatment technologies approved for use in California. Additionally, the MWMP acts as the local enforcement agency in a number of local jurisdictions that elected to

[32] California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control. Hazardous Waste Control. Accessed August 8, 2025.
[33] California Health and Safety Code, Div. 20, Ch. 6.7 Underground Storage of Hazardous Substances. Underground Storage of Hazardous Substances. Accessed August 8, 2025.
[34] California Health and Safety Code, Div. 20, Ch. 6.95, Hazardous Materials Release Response Plans and Inventory. Hazardous Materials Release Response Plans and Inventory. Accessed August 8, 2025.
[35] Medical Waste Management Program. *Medical Waste Management Act.* California Department of Public Health. 2024. Medical Waste Management Program. Accessed August 8, 2025.

have the State implement the large quantity generator inspection program for medical waste management.[36]

Local Regulations

The following are the local government's environmental policies relevant to hazards and hazardous materials.

Lake County Division of Environmental Health

The Lake County Division of Environmental Health (LCDEH) is the CUPA for incorporated and unincorporated areas of Lake County. LCDEH is responsible for enforcing the California HSC regulations governing hazardous waste generation, use, storage and disposal, USTs (including inspections, enforcement, and removals), and environmental health (including inspections and enforcement). In addition, the LCDEH regulates abandonment of wells and septic systems in the county. LCDEH regulates hazards and hazardous materials by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. In addition, the LCDEH reviews technical aspects of hazardous waste site remediation and oversees remediation of certain contaminated sites resulting from leaking USTs. Furthermore, the LCDEH assists with response to disasters and accidents involving hazardous materials spills, clandestine drug labs, sewage spills, flood events, and other threats to public health and safety.

Fire Protection, Emergency Response, and Disaster Planning

The Lake County Fire Protection District (LCFPD) provides fire protection, emergency medical response, hazardous materials incident response, and other emergency services to the City of Clearlake. Under the Lake County Sheriff's Department, Lake County OES works with other County departments, local public agencies and utilities to prepare and respond to emergencies. Typically, air ambulances utilize the helipad at St. Helena Hospital, just east of the project site; however, air ambulances also use the loading zone behind Ray's Food Place to the southeast of the project site. LCFPD then transports the crew and patient from the landing pad to the hospital.

Local Hazard Mitigation Plan

In 2018, Lake County adopted the Lake County Local Hazard Mitigation Plan (LHMP) Update, to identify strategies to minimize damage from natural and human-caused hazards.[37] The City of Clearlake adopted its own similar LHMP in 2019.[38] Because hazards often cross jurisdictional

[36] "Medical Waste Management Program," California Dept. of Public Health. https://www.cdph.ca.gov/Programs/CEH/DRSEM/Pages/EMB/MedicalWaste/MedicalWaste.aspx. Accessed August 8, 2025.
[37] County of Lake, California. *2018 Lake County Hazard Mitigation Plan.* https://www.lakesheriff.com/DocumentCenter/View/9672/2018-Lake-County-Hazard-Mitigation-Plan-PDF. Accessed August 8, 2025.
[38] City of Clearlake. *2019 Local Hazard Mitigation Plan.* City of Clearlake 2019 Local Hazard Mitigation Plan. Accessed August 8, 2025.

boundaries, the two plans address many of the same issues. The LHMPs guide hazard mitigation planning to better protect the people and property of the County and maintain eligibility for certain federal disaster assistance. LHMPs are subject to review by FEMA and the State Office of Emergency Services and require updating every five years. The County and the City are currently preparing a multi-jurisdictional LHMP to provide coordinated approach to hazard mitigation. A public review draft is available at the time this EIR was prepared (July 2025) and adoption by both agencies is expected before the end of 2025. For this EIR, the City's 2019 LHMP is used as a primary data source, supplemented by reviewing the draft update documents.

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, strategies and actions that affect hazards and wildfire matters of this project as follows:

GOAL 5: Fire-prepared and resilient communities with the capacity to manage desired fire and suppress unwanted fire while protecting lives, housing, and critical infrastructure.

Action 28.1: Develop integrated emergency water supply planning and coordination mechanisms between all public and private water entities during multi-system emergencies, droughts, and Public Safety Power Shutoff (PSPS) events.

2040 General Plan Update

The following *2040 General Plan Update* policies and programs relating to hazards and hazardous materials are applicable to the Proposed Project.

Safety Element

Policy SA 1.1.2. The City shall continue to enforce the California Building Code (CBC) for all new construction and renovation and when occupancy or use changes occur.

Policy SA 1.2.2. The City shall work with the Lake County Watershed Protection District in the project review process to ensure that adequate measures are implemented to prevent flooding.

Program SA 1.2.2.1. The City may require new development (depending on size and impact) to prepare hydraulic storm drainage studies defining the net increase in storm water run-off resulting from construction and require on-site detention/retention structures or improvements that ensure post-project flows are less than or equal to pre-project flows.

Policy SA 1.2.3.	The City shall continue to work with Lake County to ensure that additional storm drainage runoff and erosion resulting from development occurring in unincorporated areas upstream from drainage channels is adequately mitigated through improvements on site and/or downstream.
Policy SA 1.2.4	The City shall enforce measures to minimize soil erosion and volume and velocity of surface runoff both during and after construction through application of the erosion control guidelines.
Program SA 1.2.4.1	The City shall require that best management practices for erosion control during construction be followed for all construction projects.
Program SA 1.2.4.2	The City shall require erosion and sediment control plans for new grading or development meeting the threshold for grading permits.
Policy SA 1.2.5	The City shall monitor drainage channels for sufficient capacity.
Policy SA 1.3.1	The City should collaborate with the County Fire Protection District to inspect development projects to assure fire risks are minimized.
Program SA 1.3.2.1	The City shall ensure new development (subject to building permits) complies with the Fire Code.
Policy SA 1.3.2	The City shall promote the use of defensible space in order to reduce the risk of structure fires.
Policy SA 1.3.3	The City shall use the Sonoma Lake Napa Cal Fire Unit Fire Plan as the standard to develop fire hazard evaluations, assessments of assets at risk, prioritization of hazard mitigation actions and implementation and monitoring components.
Policy SA 1.4.1	The City shall require structural integrity of existing buildings to reasonably protect occupants from earthquakes.
Policy SA 1.4.2	The City shall require geotechnical reports by a state registered geologist for development proposals on sites in seismically and geologically hazardous areas and for all critical structures.
Program SA 1.4.2.1	The City shall require, as conditions of approval, measures to mitigate potential seismic and geologic safety hazards for structures as recommended by the geotechnical report.

Policy SA 3.1.1	The City should maintain separation between residential areas and hazardous materials.
Policy SA 3.1.2	The City shall require remediation of hazardous sites before prolonged human occupation.
Policy SA 3.1.3	The City shall comply with hazardous waste transport standards set by the U.S. Department of Transportation.
Policy SA 3.1.4	The City should continue facilitating land use and transportation decisions and other programs in accordance with City authorized related plans (such as the Lake County Hazardous Waste Management Plan).
Policy SA 4.4.1	The City shall require adequate emergency transportation access to new developments. Refer to Chapter 4, Circulation Element Policy CI 1.3.3 and Programs CI 1.3.3.2, 1.3.3.3 and 1.3.3.4 regarding emergency routes.[39]

[39] City of Clearlake. *2040 General Plan Update.* https://www.clearlake.ca.us/DocumentCenter/View/2502/General-Plan-2040. 135-146. Accessed August 8, 2025.

4.7.4 Impacts and Mitigation Measures

This section describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential impacts related to hazards and hazardous materials.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact may occur if the Proposed Project would result in the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires;
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:
    - substantially impair an adopted emergency response plan or emergency evacuation plan;
    - due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
    - require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and/or

- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

For the purposes of this EIR, "hazardous material" is defined as provided in California HSC, Section 25501: "Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Hazardous materials include, but are not limited to, substances, waste, and/or any material that an administering agency or responsible handler has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released. "Hazardous waste" is a subset of hazardous materials. For the purposes of this EIR, the definition of hazardous waste is essentially the same as that in the California HSC, Section 25517, and in CCR Title 22, Section 66261.2: "Hazardous wastes are wastes that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed." CCR Title 22 categorizes hazardous waste into hazard classes according to specific characteristics of ignitibility, corrosivity, reactivity, or toxicity. Hazardous waste with any of these characteristics is also a Resource Conservation and Recovery Act (RCRA) waste. Hazardous materials can be categorized as hazardous non-radioactive chemical materials, defined above, or toxic materials, radioactive materials, and biohazardous materials - further defined below.

- Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability.
- Radioactive wastes are radioactive materials that are discarded (including wastes in storage) or abandoned.
- Toxic wastes are harmful or fatal when ingested or absorbed (e.g., containing mercury, lead). When toxic wastes are land disposed, contaminated liquid may leach from the waste and pollute groundwater.
- Biohazardous materials include materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, and viruses) that cause or significantly contribute to increased human mortality or organisms capable of being communicated by invading and multiplying in body tissues.
- Medical wastes include both biohazardous wastes (byproducts of biohazardous materials) and sharps (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of human beings, or research pertaining to these activities.

Countless categories of hazardous materials and waste could be found on any given property based on past uses. Common examples include agrichemicals (chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides, such as such as Mecoprop (MCPP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyldichloroethylene (DDE)), petroleum-based products (oil, gasoline, diesel fuel), or paints, cleaners, solvents, asbestos- and/or lead-containing materials (e.g., building materials, paint, sealants, pipe solder, etc.).

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 535,500 square feet of commercial building area, using the assumptions of the General Plan EIR traffic analysis. Under the Proposed Project, full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Because the General Plan EIR did not review historical site records or perform a site-specific analysis of the Project site vis-à-vis hazards and hazardous materials, this chapter includes a discussion of site-specific technical studies as well as a review of archival documentation from environmental protection agencies such as US EPA, CA DWR, CA DTSC, and LCDEH, to determine if hazardous materials storage, releases or spills, USTs, ASTs, LUSTs, or any other hazardous conditions have been identified in the vicinity of the project site.

The analysis within this chapter is based upon the following:

1. Technical studies cited in Section 4.1.1 of this Chapter, including the Phase I ESAs for the northern portion of the site (Krazan, 2007), central area (Ramboll, 2024), and western parcels (Ramboll, 2024); the Phase II Subsurface Investigations for the central area (Ramboll, 2024) and southern area (AEI, 2018); and the Draft Geotechnical Engineering Investigation for the northern area (Moore Twining, 2008). The Phase I ESAs include reconnaissance-level surveys of the site and an evaluation of environmental conditions based on: aerial photographs available from public sources; historical United States Geological Survey (USGS) topographic maps; building permits; interviews with the previous owners; agency records reasonably available from appropriate federal, state, and local regulatory agencies for documented soil and/or groundwater contamination investigations conducted at the project site and vicinity, as defined in the American Society for Testing and Materials (ASTM) Standard; current USGS 7.5-minute topographic maps; geology and soils information; flooding information; wildfire, emergency evacuation, and emergency response information; and groundwater information. The Phase II Subsurface Investigations and Geotechnical Engineering Investigation investigate subsurface conditions on the site and include soils testing and borings.

2. Archival research and database records searches of natural resource and environmental protection agencies at the local, state, and federal governmental levels, including the following:

    - Envirostor[40]
    - Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)[41]
    - GeoTracker Information System and Geographic Environmental Information Management System[42]
    - National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites[43]
    - Toxics Release Inventory (TRI) Program[44]
    - California Airport Land Use Planning Handbook[45]
    - Lampson Field Master Plan Report[46], Lampson Field Airport Layout Plan[47], and Lampson Field Airport Layout Plan Draft[48]
    - USDA Web Soil Survey[49]
    - Local Responsibility Areas Fire Hazard Severity Zone Mapping[50]

[40] California Department of Toxic Substances Control. "Envirostor." Available at https://www.envirostor.dtsc.ca.gov/public. Accessed March 22, 2025.

[41] United States Environmental Protection Agency. "Search Superfund Site Information." Available at: https://www.epa.gov/superfund/search-superfund-sites-where-you-live. Accessed March 22, 2025.

[42] California State Water Resources Control Board. "Geotracker." Available at: Geotracker Web-Map. Accessed March 22, 2025.

[43] United States Environmental Protection Agency. "Current NPL Updates: New Proposed NPL Sites and New MPL Sites." Available at https://www.epa.gov/superfund/current-npl-updates-new-proposed-npl-sites-and-new-npl-sites. Accessed March 23, 2025.

[44] United States Environmental Protection Agency. "Toxics Release Inventory Program." Available at: https://www.epa.gov/toxics-release-inventory-tri-program. Accessed March 23, 2025.

[45] State of California Department of Transportation, Division of Aeronautics. California Airport Land Use Planning Handbook. October 2011. Available at: https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf. Accessed March 23, 2025.

[46] Hodges & Shutt. Lampson Field Master Plan Report. Adopted by County of Lake Board of Supervisors June 15, 1993. Available at: https://www.lakecountyca.gov/732/Airport. Accessed March 23, 2025.

[47] Mead & Hunt. "Lampson Field Airport Layout Plan." County of Lake. 1993. Available at: https://www.lakecountyca.gov/732/Airport. Accessed March 23, 2025.

[48] Mead & Hunt. "Lampson Field Airport Layout Plan Draft." County of Lake. June 2015. Available: https://www.lakecountyca.gov/732/Airport. Accessed March 23, 2025.

[49] United States Department of Agriculture, Natural Resources Conservation Services. "Web Soil Survey." Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed March 22, 2025.

[50] California Department of Forestry and Fire Protection (Calfire). "City of Clearlake – Lake County: Local Responsibility Area Fire Hazard Severity Zones." January 22, 2025. Available at https://calfire.app.box.com/s/wahuw9ny7cgn89xpxh7092ur50r1pwvj/folder/286538843558. Accessed March 22, 2025.

Project-Specific Impacts and Mitigation Measures

The following discussion of hazards and hazardous materials impacts is based on the implementation of the Proposed Project in comparison to existing conditions and the standards of significance presented above.

4.7-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (*Less than Significant with Mitigation)*

Project Construction

Hazardous materials would be used in varying quantities during project construction. Construction and maintenance activities would use hazardous materials such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, and cleaners (which could include solvents and corrosives in addition to soaps and detergents). Construction workers and the general public could be exposed to hazards and hazardous materials as a result of improper handling or use during construction activities, transportation accidents, or other emergencies. Construction workers could also be exposed to hazards associated with accidental releases of hazardous materials, which could result in adverse health effects. The disposal of any existing debris on the site as a prerequisite of construction of the Project would be undertaken in a manner that properly disposes of waste.

Project Operation

There are a number of proposed uses that could involve the routine, use or disposal of hazardous materials. The proposed medical facilities in the western area of the site could generate hazardous waste typical of hospitals, including but not limited to the following:

- Biohazardous waste, such as bodily fluids
- Pathological waste, such as body parts and tissues
- Sharps, such as needles and pipettes
- Pharmaceutical waste, including prescription and over-the-counter medications, IV bags and tubing, full syringes, etc.
- Trace chemotherapy waste, which consists of materials that had contact with chemotherapeutic agents such as gowns and wipes, gloves, masks, bottles, and vials
- Hazardous chemical waste, which includes any waste that is ignitable, corrosive, reactive, or toxic
- Mixed medical & chemical waste, such as tissues fixed in formalin
- Radioactive waste, which is generated primarily by nuclear medicine and radiation therapy
- Universal waste, which is hazardous waste with less stringent management and disposal requirements, such as batteries, electronic waste, and CFC lightbulbs

As required by law, medical waste is contained separately from other waste at the point of origin, and each category listed above is handled and disposed of differently, consistent with a detailed Hazardous Materials Business Plan (HMBP) in compliance with California HSC, Division 20, Chapter 6.95. The HBMP is reviewed and approved by the Lake County Division of Environmental Health as the Certified Unified Program Agency (CUPA) for all of Lake County. Requirements for an HMBP are outlined by CalEPA and include the following:

- An inventory and site map of hazardous materials at the facility;
- Emergency response plans and procedures to be followed in the event of a reportable release or threatened release of a hazardous material;
- Requirements to train employees in safety procedures in the event of a release or threatened release of a hazardous material, including onboarding for new employees and annual refresher courses for existing employees;
- A site map that depicts north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment;
- Documentation of the legal requirements and regulations that the hospital must comply with;
- Standard operating procedures for specific processes involving hazardous materials, detailing controls to minimize risks; and,
- Procedures for identifying, collecting, storing, and disposing of hazardous waste, including biohazardous waste.

Medical waste would be picked up from any medical facilities and disposed of by licensed medical waste commercial vendors required to comply with various federal and State laws regarding hazardous materials transport. All chemicals would be stored inside buildings with appropriate containment and ventilation, as required, and such chemicals would be utilized in limited quantities by experienced personnel according to label instructions. These requirements would be implemented by the County as the designated CUPA upon any proposal to construct such a facility, and would be ensured through implementation of Mitigation Measure 4.7-1 below.

The project site could also include a fueling station which would be subject to an HMBP and other regulations. Gasoline dispensing facilities are subject to a two-step process of a "Permit to Construct" followed by a "Permit to Operate" after verification of vapor recovery test results. Fuel dispensing facilities and service stations must also comply with specific electrical safety standards outlined in Title 24, Part 3, California Electrical Code, Article 514.[51]

[51] Cal. Code Regs. tit. 24, pt. 3, art. 514 California Electrical Code – Motor Fuel Dispensing Facilities, (2025). Accessed via the National Fire Protection Association at National Fire Protection Association Website. Accessed August 8, 2025.

Any other businesses that could generate, store, or handle quantities of hazardous materials over the regulated thresholds (55 gallons of a liquid, 500 pounds of a solid, 200 cubic feet of a gas, and other quantities for extremely hazardous substances, or, for which an emergency plan is required) would also be required to comply with State and County Environmental Health regulations at the time of site-specific project implementation, including the submittal of an HMBP. Most of the businesses expected would be retail and commercial (e.g., restaurants) in nature and would not generate or handle larger quantities of hazardous materials. However, retail food facilities are regulated by the California Retail Food Code regulations and must comply with these through permitting from the Lake County Environmental Health Division.

General Plan Evaluation

The General Plan EIR references the Pearce Airport, part of the project site, as an area that experiences significant transport and handling hazardous materials, such as petroleum products. It also notes that the previous airport has been decommissioned and that that the project site needs to be further investigated for hazardous material before it is converted into a commercial center. This is further discussed in 4,7-2. As for handling and transport of hazardous materials during project construction and operation, the Proposed Project will conduct transport and handling of hazardous materials in compliance with policies and programs of the General Plan, and particularly the Safety Element.

Conclusion

The project applicant, contractors, and others would be required to use, store, and transport hazardous materials in compliance with federal, State, and local regulations during project construction and operation. Significant risks to the public or workers are not expected with the assumption that these products are used, transported and disposed of properly in accordance with the handling instructions on their labels and in accordance with State and federal regulations. In addition, any proposed medical facility would be required to comply with California HSC, Division 20, Chapter 6.95, and California Code of Regulations, Title 19, Division 5, Chapter 1, Sections 5010.1-2 requirements for an HMBP, as overseen by the County of Lake Division of Environmental Health. Any other businesses that could generate, store, or handle quantities of hazardous materials over the regulated threshold would also be required to comply with State and County Environmental Health regulations at the time of site-specific project implementation. Therefore, the project would result in an impact that is ***less-than-significant with mitigation*** related to the routine transport, use, or disposal of hazardous materials.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce impacts related to the routine transport, use, or disposal of hazardous materials into the environment.

Mitigation Measure 4.7-1: Hazardous Materials Business Plan. Prior to building permit issuance for any use anticipating to store hazardous materials equal to or greater than 55 gallons (liquid), 500 pounds (solid), or 200 cubic feet (compressed gas), the applicant shall apply for and obtain a Hazardous Materials Inventory Disclosure Statement/Business Plan with the Lake County Environmental Health Division via the California Electronic Reporting System (CERS), and it shall be renewed and updated annually or if quantities increase. Hazardous materials shall not be allowed to leak onto the ground or contaminate surface waters. Hazardous materials shall be recycled or disposed of through a registered waste hauler to an approved site authorized to accept such materials.

Mitigation Measure 4.7-2: Hazardous Waste Generator. If hazardous waste is generated in any quantity for any use, then prior to building permit issuance, the applicant shall be subject to regulation as a hazardous waste generator and shall apply for a one-time submittal to CERS and fees and inspection by the Lake County Environmental Health Division.

Mitigation Measure 4.7-3: Retail Food Code Regulations. Prior to building permit issuance for any retail food facilities, the applicant must apply and pay for plan check application for permitting approval from the Lake County Environmental Health Division. Food facilities must be permitted and inspected prior to opening to the public.

4.7-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (*Less than Significant with Mitigation)*

Environmental investigation and/or remediation has been conducted on a majority of the Project site, including within the former Lake County Corporation Yard, at the former Norris Carter & Sons site, and at the former Osaka Aviation site.

The various reports for the site identified the following issues, which are discussed in more detail below:

Northern Area

- The 2007 Phase I ESA (Krazan) identifies pole mounted transformers, asbestos, and unknown septic system locations as potential hazardous issues.
- The 2024 Subsurface Investigation (Ramboll) of the northern area recommends implementation of a soil management plan in the event of future soil disturbing activities as a precautionary measure due to the historical industrial use of the site and potential for undiscovered underground features.

Southern Area

- The 2018 Phase 2 Subsurface Investigation (AEI) recommends excavation over the top of three anomalies to evaluate if the anomalies are existing USTs and to evaluate the condition of the USTs, if identified.

Western Parcels

- The Phase 1 ESA for APNs 010-031-080 and -090 (Ramboll) cleared those parcels.
- The Phase 1 ESA for APN 010-031-050 (Ramboll) recommended asbestos and lead-based paint surveys prior to demolition or redevelopment of any buildings on that parcel.

Areas of the site that were the subject of previous investigations are discussed below.

Pearce Airport

The site was operated as Pearce Airport from approximately 1958 to the mid-1990s by Lake County. The former operations as an airport may have included the use of petroleum products and various chemicals, including PFAS that may have been used in aqueous film-forming foam (AFFF) retardant used in fire-fighting training and incident responses. A 1994 site inspection was completed by the Water Board to identify potential environmental concerns at the airport. The 1994 site inspection did not identify any USTs or environmental concerns in the northern portion of the site; however, environmental concerns (including USTs) were identified at the adjoining airport property, all of which were subsequently addressed to the Water Board's satisfaction.

The FAA historically and currently requires certain airports to provide aircraft rescue and firefighting services including the use of AFFF. Although the use of AFFF was not confirmed, site representatives indicated that the Lake County Fire Protection District has historically performed training activities at the airport property. A limited subsurface investigation was conducted in connection with the historical airport operations and found that no additional investigation was needed. However, as a precautionary measure due to the historical industrial use of the site and the potential for undiscovered underground features such as underground storage tanks, sumps, pits, etc., the environmental investigation reports recommend a soil management plan for all future soil disturbing activities.

Lake County Corporation Yard/Highlands Road Yard

Fuel underground storage tanks (USTs) were removed from the former Lake County Corporation Yard and from a southern adjacent aircraft refueling facility (Osaka Aviation). A December 18, 1998 LCDEH closure letter indicates that two USTs of unspecified size and contents were removed from the "Highlands Road Yard" (former Lake County Corporation Yard) located in the northeastern portion of the subject site on October 15,

1998. The closure letter indicates that the two USTs were removed under the supervision of the LCDEH and that soil samples were collected from beneath the former USTs. The closure letter implies that petroleum hydrocarbon constituents were not detected in soil samples collected from beneath the USTs, although that conclusion cannot be definitively substantiated given the absence of soil sampling and analytical data for review. However, the closure letter states that, based upon the LCDEH review of the laboratory report for soil samples collected from both ends of the tanks and their field observation, the LCDEH granted a closure status and "...will require no further action regarding the former underground storage tanks located at the Clearlake site."

Norris Carter & Sons

Norris Carter & Sons was a former aviation painting facility located in the central-western area of the Project site where the current City Public Works corporation yard and maintenance shop are located. Analysis of soil samples collected in 1994 from beneath the location of the former catch basin and the former recycled stripping liquids containment vessel at 4 feet below ground surface revealed a potential for elevated hexavalent/total chromium and fluoride concentrations. However, results obtained from a subsequent investigation conducted in September 1995 indicated soil samples collected at depths ranging between 4.5 and 9.5 feet below ground surface revealed that chromium and fluoride concentrations were similar to background concentrations. A soil boring advanced to 36 feet below ground surface did not encounter groundwater, and borings at the nearby Osaka Aviation site indicate that groundwater occurs at a depth of greater than 50 feet below ground surface. Based on the apparently limited impact to surficial soils, the Regional Water Board deemed the investigation to be complete at the Norris Carter site, stating in a March 25, 1996 letter that "[. . .] staff has determined that appropriate actions have been completed, that no further investigation, remedial or removal action or monitoring is required at the Norris Cater site at the Pearce Airfield in Clearlake." Following completion of the environmental investigations and remedial actions, the Regional Water Board and/or the LCDEH granted a site "closure" status to the three above-referenced sites.

Osaka Aviation/Resort Aviation

Osaka Aviation (also referred to as Resort Aviation), previously located in the central-eastern area of the Project site, provided aircraft refueling and maintenance services at Pearce Airfield for an unspecified period of time. In September 1994, three fuel USTs were removed from an area located to the south of the Osaka Aviation building. Analysis of soil samples collected from beneath each end of the three USTs at a depth of approximately 10 feet below ground surface revealed low concentrations of total petroleum hydrocarbons as diesel (TPH-D) in only two of the six samples collected. Additionally, soil samples were collected from the base of shallow excavations advanced to remove surficial soil staining observed in three areas at the Osaka Aviation Site. Analysis of the above referenced shallow excavation soil samples revealed the presence of low concentrations of what appeared to be waste oil. The locations of the former USTs and the three shallow

excavation pits were subsequently over-excavated to depths of 14.5 feet below ground surface and three to six feet below ground surface, respectively. Analysis of soil samples collected from base of the over-excavations did not reveal detectable concentrations of any of the constituents of concern. Additionally, a soil boring advanced to a depth of 50 feet below ground surface did not encounter groundwater. Approximately 230 cubic yards of potentially impacted soil was initially stockpiled on site. With Regional Water Board approval, that portion of the stockpiled soil determined to be minimally impacted was utilized as excavation backfill and the remainder of the impacted soil was transported off site for disposal. In a letter dated August 23, 1996, the Regional Water Board deemed the investigation to be complete at the Osaka Aviation Site stating "staff has determined that appropriate response actions have been completed, that no further investigation, remedial or removal action or monitoring is required at the Osaka Aviation site at the Pearce Airfield in Clearlake."

The 2018 Phase 2 subsurface investigation of the southern area which covered the Osaka Aviation area indicates that lead did not exceed the RWQCB Environmental Screening Levels (ESLs) or direct exposure for residential and commercial/industrial land uses. However, it did identify three anomalies suggesting possible manways or fill ports in the area of the former batting cages and recommends excavation over the top of the anomalies to evaluate if the anomalies are existing USTs and to evaluate the condition of the USTs, if identified (refer to Appendix H for the Subsurface Investigation report by Ramboll US Consulting, Inc, September, 2024) . Similarly, in a comment letter on the Proposed Project, the Lake County Environmental Health Division notes that records are unclear as to the existence or status of the possible USTs (and whether they were the USTs that were located and removed from the former Osaka Aviation/Resort Aviation site), and requests that additional field investigation and review occur to determine the status of these possible USTs. If there are any existing USTs on any of the subject parcels, they must be removed via permit from LCDEH.

City of Clearlake Public Works Corporation Yard

During Krazan's May 10, 2007 site reconnaissance, two 55-gallon drums of new oil and two 5-gallon containers of waste oil not equipped with secondary spill containment were observed in the southeastern corner of the City of Clearlake maintenance building on site. Light to moderate surface staining was observed in the oil storage area; however, no floor drains, or significant foundational cracking were observed in the vicinity of the oil storage area. Additionally, one 55-gallon drum of unknown contents not equipped with secondary containment was observed to the north of the former aircraft hangers located in the central-western portion of the subject site. No odors, surface staining, stressed vegetation, or other evidence of a release of hazardous materials/waste was observed in association with the above-referenced drum. However, the presence of liquid-phase hazardous materials absent secondary spill containment presents the potential for an adverse impact to the subject site in the event of an unauthorized release of the container contents.

Pole-Mounted Transformers

Two pole-mounted transformers were observed adjacent to the east of the commercial mini storage buildings located within the northeastern portion of the subject site and one pole-mounted transformer was observed adjacent to the east of the former maintenance building located within the northeastern portion of the subject site. The transformer casings displayed no evidence of leakage, and the ground surface below the transformers displayed no evidence of discoloration. Based on observations made during site reconnaissance for the 2007 Phase I ESA, PG&E is the owner of these on-site transformers. However, PG&E did not respond to Krazan's request pertaining to the date of installation for these on-site transformers. Consequently, it is unknown if these on-site transformers contain PCB fluids. Based on the visual absence of apparent unauthorized releases of insulating fluids from these on-site transformers at the time of Krazan's site reconnaissance, these on-site transformers are not currently anticipated to pose an adverse impact to the subject site. The Proposed Project is also anticipated to underground utilities. However, in the event of future release/leak of insulating fluids from these on-site transformers, PG&E should be contacted regarding the testing of the transformers for PCB fluids and for their removal if they do contain PCBs. Several of the structures located on the subject site were constructed prior to 1973.

Storage of Road Construction Debris and Other Materials

Asphalt and concrete debris were observed resting on the ground surface throughout the Project site. This debris could obscure ground staining or other conditions and must be disposed of properly prior to construction on the site.

Demolition of Potential Asbestos- and Lead-Based Paint Containing Structures

It is unknown if the on-site structures contain asbestos-containing building materials (ACBMs). Asbestos and lead-based paint surveys and sampling of the on-site structures have not previously been undertaken. Prior to conducting any repair, renovation, or demolition work, asbestos survey must be conducted and all recommendations implemented during construction/demolition.

Septic Systems and Wells

NCDEH has records of at least two septic systems within the Project area, likely associated with the buildings formerly associated with the Lake County Corporation Yard and Pearce Airfield, and NCDEH notes that there may be additional undocumented existing septic systems. It is unclear if these systems are or were in use and if they were abandoned at some point in the past. If they were not properly abandoned, they must be abandoned under permit from LCDEH since the site will be served by public sewer. If septic systems are identified during the redevelopment of the subject site, they must be properly abandoned or destroyed in accordance with State and local guidelines. The site should also be investigated for any undocumented groundwater wells that would need to be properly abandoned prior to construction.

General Plan Evaluation

The General Plan EIR identifies the project site as an area that need to be reviewed for hazardous materials. It also notes that the project site, previously used as an airport, must be investigated for hazardous materials before it is converted to commercial land use. As noted above, significant investigation of hazardous materials on the site has been conducted and several mitigation measures have been included with this EIR to assure more intense examinations for hazardous materials will be conducted prior to construction. Such investigations are in compliance with policies and programs of the General Plan, and particularly the Safety Element.

Conclusion

Given the information that is available in the environmental investigation reports and regulatory agency records and databases for these sites, subsurface soil impacts by fuel constituents and/or other hazardous materials may have occurred from historical operations. Construction of the project could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, contaminated debris, elevated levels of chemicals that could be hazardous, or hazardous substances that could be inadvertently spilled or otherwise spread. Any exposure to hazardous materials could pose a health risk to construction workers and the general public. During construction occurring during build-out under the Proposed Project, the release of previously unidentified contaminated soils, asbestos, lead-based paint, or other hazardous building materials could still occur; therefore, the Project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce impacts related to the accidental release of hazardous materials into the environment.

Mitigation Measure 4.7-4: Accidental Hazardous Materials Release. During project construction, should an accidental release of hazardous materials occur, the project developer/contractor shall cease operations and immediately notify the City of Clearlake Community Development Department and the Lake County Environmental Health Division and implement all appropriate remediation measures.

Mitigation Measure 4.7-5: Handling of Hazardous Materials During Construction. Prior to ground disturbance due to Project development and prior to the issuance of any grading and/or building permits for the site, a Soils Management Plan (SMP) shall be submitted and approved by the City of Clearlake Community Development Department and the Lake County Environmental Health Division. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained

onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.

Mitigation Measure 4.7-6: Hazards Remediation. Prior to any ground disturbance and issuance of any grading permits for development on Parcels 1, 2, and 3, as cited by the Subsurface Investigation report by Ramboll US Consulting, Inc. for Project Number 1940106573-001 a soils investigation report shall be prepared and submitted for review and approval by the Lake County Environmental Health Department and the City of Clearlake Community Development Department to ensure that any contaminated soils are properly identified, excavated, and disposed of off-site (refer to Figure 4.7-6 for locations of Parcels 1, 2, and 3). The subject project shall implement the recommendations of the report to reduce or substantially lessen the potentially significant environmental impacts of the project. Target concentrations of contaminants and remediation of all soils shall be at or below concentrations allowable (i.e., US EPA Maximum Contaminant Levels) for the specified use of the property (residential, commercial, or industrial), if applicable, and shall otherwise meet all federal, state and local requirements for remediation, to the satisfaction of the City Community Development Department and the Lake County Environmental Health Division. Mitigation may include but is not limited to proper abandonment of existing septic systems, wells, soils remediation, groundwater remediation, proper removal of any other hazardous materials and construction debris currently on the site.

Mitigation Measure 4.7-7: Pole-Mounted Transformers. In the event of future release/leak of insulating fluids from on-site transformers, prior to grading and/or building permit issuance, the project developer/contractor shall contact PG&E regarding the testing of any on-site transformers for PCB fluids. If the transformers contain PCBs, the project proponent shall remove the transformers under proper permitting from PG&E, the City Community Development Department, and the Lake County Environmental Health Division.

Mitigation Measure 4.7-8: Hazardous Building Materials (HBM) Remediation. If, during building modifications or replacement of existing equipment, equipment containing PCBs, mercury, or CFCs, are encountered, the City Community Development Department and Lake County Environmental Health Division shall be contacted, and all switches, ballast-containing materials, etc. shall be removed and carefully stored for possible reuse prior to disturbance of any area where HBMs are located. If these materials are not reused, then they shall be disposed and/or recycled in accordance with all applicable laws and regulations.

Mitigation Measure 4.7-9: Asbestos Remediation. Prior to any removal, remodeling, maintenance, or demolition activities affecting any of the existing onsite structures, and prior to building or demolition permit issuance, the project developer/contractor shall consult with certified Asbestos Risk Assessors to complete and submit for review to the City Community Development Department and the Lake County Environmental Health Division an asbestos survey prepared by such qualified professional. If asbestos-containing

materials (ACMs) are not discovered during the survey, further mitigation related to ACMs will not be required. If ACMs are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos abatement contractor in accordance with Title 8 CCR 1529 regarding asbestos training, engineering controls, and certifications.[52] The project developer/contractor shall submit the work plan to the City Community Development Department and the Lake County Environmental Health Division for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to Lake County Air Quality Management District (LCAQMD) approval.

4.7-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (*Less than Significant)*

There are five schools within 0.25 miles of the project site, including Clearlake Creativity School across the street from the project at 6945 Old Highway 53, Obsidian Middle School approximately 1,500 feet east of the project site at 15850-A Dam Road Extension, Carebear Preschool approximately 1,500 northeast of the project site at 5956 Oak Avenue, Woodland College and Yuba Community College approximately 1,000 feet east of the project site at 15880 Dam Road Extension.

Project Construction

Limited quantities of hazardous material substances would be used as part of construction, such as oil, grease, and fuel. Any potentially hazardous materials, substances, or waste that could be handled by operation of the expanded Walmart store would be required to comply with existing laws and regulations pertaining to the handling, transport, and disposal of such materials. For example, the transportation of hazardous materials is regulated by OSHA, the U.S. DOT, and the EPA. Specifically, OSHA regulates hazardous waste operations and emergency response in the instance of spills, the U.S. DOT maintains emergency response information and training requirements, and the EPA regulates the discharge or oil and designated hazardous substances. Additionally, grading and construction operations would be required to comply with federal, State, and local regulatory requirements governing the use, storage, and disposal of hazardous materials.

[52] Cal. Code of Regs. tit. 8, Div. 1, Ch. 4 Subch.4 Art. 4 §1529 – Asbestos (2025). California Code of Regulations - Asbestos. Accessed August 8, 2025.

Project Operation

The HMBP for any site-specific projects would ensure that operation of the project would not result in a reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. The HMBPs would be implemented as part of the Proposed Project.

General Plan Evaluation

In accordance with hazardous waste regulations any sit-specific development on the project site will require a HMBP to ensure minimal exposure of hazardous materials to sensitive receptors. This is consistent with several policies and programs of the General Plan Safety Element.

Conclusion

Because the project would comply with existing laws and regulations regarding hazardous emissions, materials, substances, or waste, the project would result in a ***less-than-significant*** impact related to hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Mitigation Measure(s)

None required.

4.7-4 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (*Less than Significant*)

The Proposed Project would not physically interfere with an emergency plan because the project would not alter the existing street system of any major roadways and the proposed circulation improvements would increase connectivity in the project vicinity. Project construction and operation is not expected to interfere with any adopted emergency response plan, as an emergency response plan has not been adopted for the City of Clearlake. In addition, prior to building permit approval, the project applicant would be required to demonstrate compliance with all emergency access requirements and other emergency standards in place in the City of Clearlake.

General Plan Evaluation

The project site is situated in an excellent location with access out to Highway 53. The Safety Element identifies the issue of limited access into and out of the County which is more of a regional issue. Several policies and programs are identified in the General Plan to improve emergency response to reduce these impacts to a level of less than significance.

The City relies on real-time alerts through systems like Nixle, Genasys Protect (Zonehaven), and Watch Duty to inform residents of emergency zones and routes.

Conclusion

The project would have a ***less-than-significant*** impact with respect to impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

Mitigation Measure(s)

None required.

4.7-5 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (*Less than Significant*)

DTSC's EnviroStor database, which tracks federal superfund sites, state response sites, voluntary cleanup sites, and school cleanup sites, includes the DTSC component of the Cortese List, specifically identifying sites under HSC section 25356, including Annual Workplan (now State Response/Superfund) and Backlog sites. A review of the Envirostor California cleanup sites database available via the DTSC website indicated that no records of cleanup sites are on file with the DTSC for the subject site and the adjacent properties. As identified in Impact Discussion 4.7-2, however, the site does contain previously investigated and remediated hazardous conditions (USTs) and will be subject to mitigation under Mitigation Measure 4.7-2 that would reduce any significant hazards to the public or environment to a ***less than significant*** level.

Mitigation Measure(s)

None required.

4.7-6 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; or, for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area (*No Impact*)

Lampson Field is a general aviation airport and the sole public use facility in Lake County and is located approximately 15 miles from the Project site. There are no private airports

and no airport safety hazard zones within the vicinity of the Project site. Therefore, there would be ***no impact*** related to an adopted airport land use plan or private airstrip for people residing or working in the project area.

Mitigation Measure(s)

None required.

4.7-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires (*Less than Significant*)

The Proposed Project is located in an area that is highly disturbed and has been previously mass-graded and developed with the former Pearce Airport along with a variety of other commercial and public facilities such as the Lake County and City of Clearlake Public Works's corporation yards. Proposed uses would further remove ignition sources such as ruderal vegetation and trees, add asphalt-concrete roads for better emergency access circulation, include defensible space pursuant to Public Resources Code 4291, comply with emergency access pursuant to Public Resources Code 4290, and include construction fire protection measures required in the California Building Code and California Fire Code in effect at the time of construction, including adequate fire protection water supply, fire hydrant locations, and emergency responder radio communication systems.

The Lake County Fire Protection District (LCFPD) has jurisdiction over the subject site and the entire Local Responsibility Area (LRA), which spans 165 square miles. The LCFPD currently operates the station at 14815 Olympic Drive. The project site is located within a seven-minute response time from this station and is within the District's response time goal. When building permits are issued for the project, development impact fees will be collected to pay for capital facility improvements to offset the impact from serving the project. Through Measure D, Ordinance 2016-1001, the District also receives special tax revenue to augment other funding for fire protection and prevention, rescue, emergency medical services and transportation, hazardous material, and other services relating to the protection of lives and property.

Comments from the Fire District reference a list of fire code requirements to address site development, such as minimum fire flow and emergency access. The City enforces the 2021 International Fire Code (IFC) and the 2022 California Fire Code (CFC), and other related fire safety regulations to assure all development complies with these requirements. Building permit plan re-view is conducted by District personnel collaboratively with the City to assure compliance with these codes.

Comments from the Fire District also indicate that they plan to upgrade Fire Station 71, a small unstaffed station on the project site. Improvements to this building to change it from unstaffed to an active fire station is speculative, but could further enhance the District's services to the site. Existing funding, such as development impact fees, Measure D funding,

and grants would help pay for expanded facilities that may be needed to serve the southern portion of the City, including the project site. However, it is noted that any significant upgrades to the building would require approval by the City since the City owns the building and, under the Development Manual, an administrative use permit would be required for such a change.

General Plan Evaluation

The project site is shown in the General Plan to be located within a High Fire Zone location, but since the site has been previously disturbed and there are a number of policies and programs in the Safety Element, along with fire safety requirements, including development impact fees to pay for fire safety improvements, that will reduce hazards to a level of less than significance.

Conclusion

Development impact fees assessed by the Fire District, as well as other funding sources outlined above, would mitigate these service demands and impacts to wildfire danger. With adherence to the aforementioned State and local requirements, the Proposed Project would result in a ***less-than-significant*** impact related to exposing people or structures to the risk of loss, injury, or death involving wildland fires.

Mitigation Measure(s)

None required.

4.7-8 If located in or near state responsibility areas or lands classified as very high fire hazard severity zones: substantially impair an adopted emergency response plan or emergency evacuation plan; due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment (*Less than Significant*)

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is currently located within mostly Unzoned Local Responsibility Area (LRA), with some moderate fire zones along the south and west sides of the project site (refer to Figure 4.7-5). The site is surrounded by Moderate, High, and Very High Fire Hazard Severity Zones, and according to the General Plan Background Report, Clearlake's fire risk is largely derived from wildland fires that could encroach on city land.

Construction activities could provide the greatest threat of igniting a fire on adjacent lands through welding, re-fueling, or use of other fuel-motorized equipment. Construction work activities would be required to adhere to State-required fire safety measures that include, but are not limited to, the following: restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire-suppression equipment that must be provided onsite for various types of work in fire-prone areas. In the vicinity of the project site, winds are generally light due to the sheltering effect of surrounding mountains, with predominant winds occurring from the northwest, particularly in the summer months, with wind in the winter months generally more directionally variable. Because the predominant prevailing wind direction in the area is from the northwest, wildland fire would likely be directed away from the nearby sensitive receptors to the north and northeast of the site.

As discussed in the Regulatory Context section of this chapter, California Building Code (Chapter 7A), *Materials and Construction Methods for Exterior Wildfire Exposure*, applies to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area (defined in the Code as Fire Hazard Severity Zones, which are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in SRAs or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189). The purpose of Chapter 7A is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within SRAs or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contribute to a systematic reduction in conflagration losses. Construction of the Proposed Project would be required to comply with Chapter 7A of the California Building Code, as well as Public Resources Code Section 4291, which addresses maintenance of defensible space around structures in areas that could be subject to wildland fires.

General Plan Evaluation

Although the project site is in a location identified in the General Plan "high" the Safety Element includes a number of policies and programs that will result in less than significant impacts. The Proposed Project would be consistent with the General Plan by incorporating a number of mitigation measures that reduce fire risk to a level of less than significant.

Conclusion

The project site would be developed with commercial and residential uses and, therefore, implementation of the project would not introduce new threats of wildland fire. In addition, because the project site would be paved and further developed as part of the project, the threat of wildland fire at the project site is likely to be minimal. This impact is considered ***less than significant.***

Mitigation Measure(s)

None required.

4.7-9 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes (*Less than significant*)

Topography on and near the project site is primarily level and gently rolling.

General Plan Evaluation

The General Plan identifies the site as not located within a flood zone or having slope instability from drainage changes.

Conclusion

Although post-fire conditions are possible on or near the project site, the onsite and adjoining topographical conditions would not contribute to slope instability or post-fire erosion issues. This impact is therefore considered ***less than significant.***

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Proposed Project in combination with other proposed and pending projects in the region. Other proposed and pending projects in the region under the cumulative context would include build-out of the City's General Plan, as well as development of the most recent planned land uses within the vicinity of the project area. Refer to Chapter 5, Statutorily Required Sections, of this EIR for more detail.

4.7-10 Cumulative exposure to potential hazards associated with potentially contaminated soil and groundwater and an increase in the transport, storage, and use of hazardous materials (*Less than Cumulatively Considerable*)

Impacts associated with hazards and hazardous materials related to implementation of the Proposed Project are analyzed in this chapter of the EIR, and all project-specific impacts related to hazards and hazardous materials were found to be less-than-significant with implementation of mitigation measures set forth in this chapter.

General Plan Evaluation

The General Plan evaluates cumulative impacts from exposure to potential hazards associated with potentially contaminated soil and groundwater and an increase in the transport, storage, and use of hazardous materials due to incremental growth within the City, including the project site. The Proposed Project would be consistent with the General Plan in that cumulative impacts from this development would result in less than significant impacts.

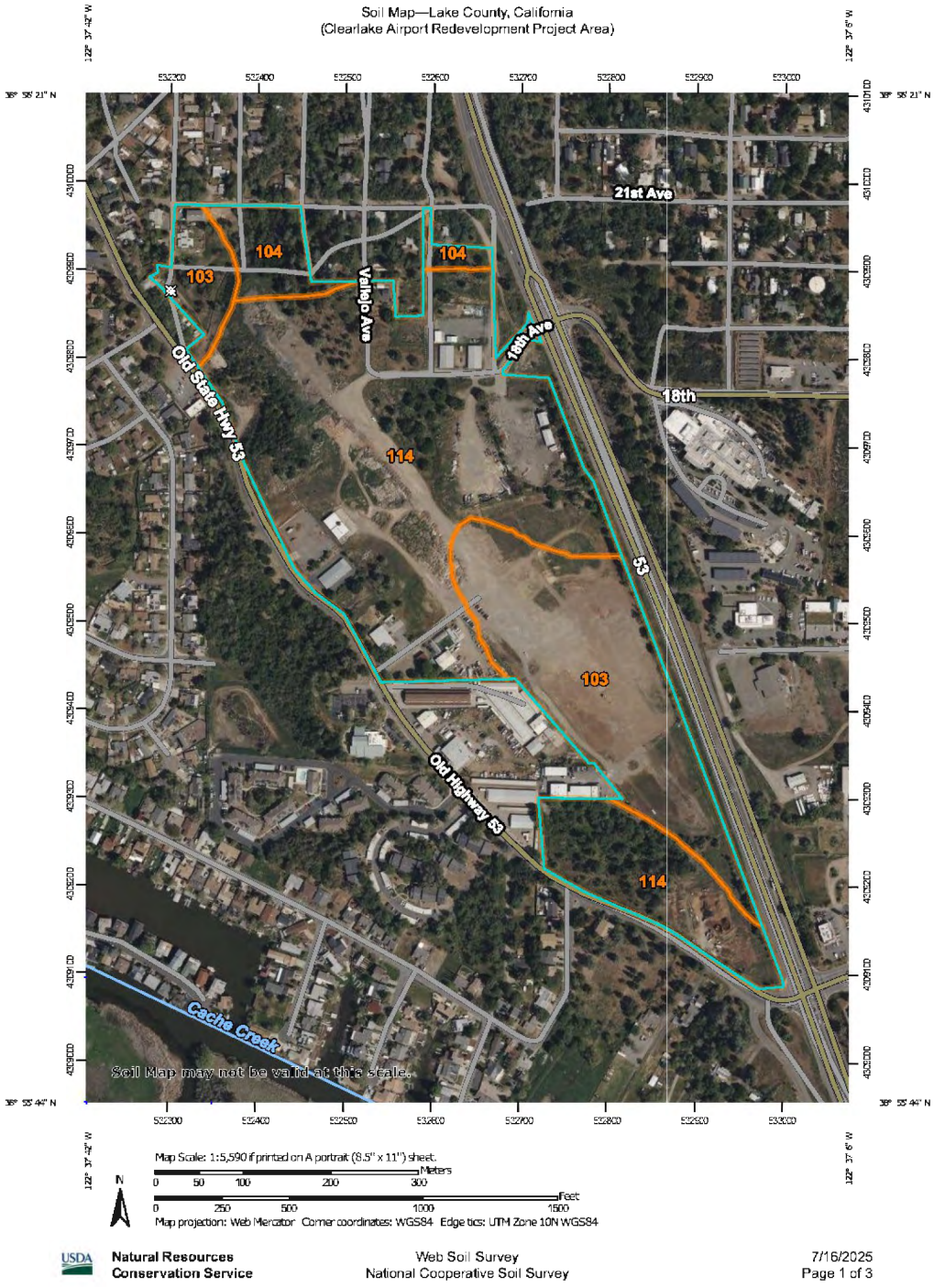
Conclusion

Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific and would not be significantly affected by other development inside or outside the City. In addition, other cumulative development projects would be subject to the same federal, State, and local hazardous materials management requirements as the Proposed Project, which would minimize potential risks associated with increased hazardous materials use in the community, including potential effects, if any, on the Proposed Project. Therefore, cumulative impacts associated with hazardous materials transport, storage, and use associated with implementation of past, present, and reasonably foreseeable future projects, as well as the Proposed Project would be ***less than cumulatively considerable***.

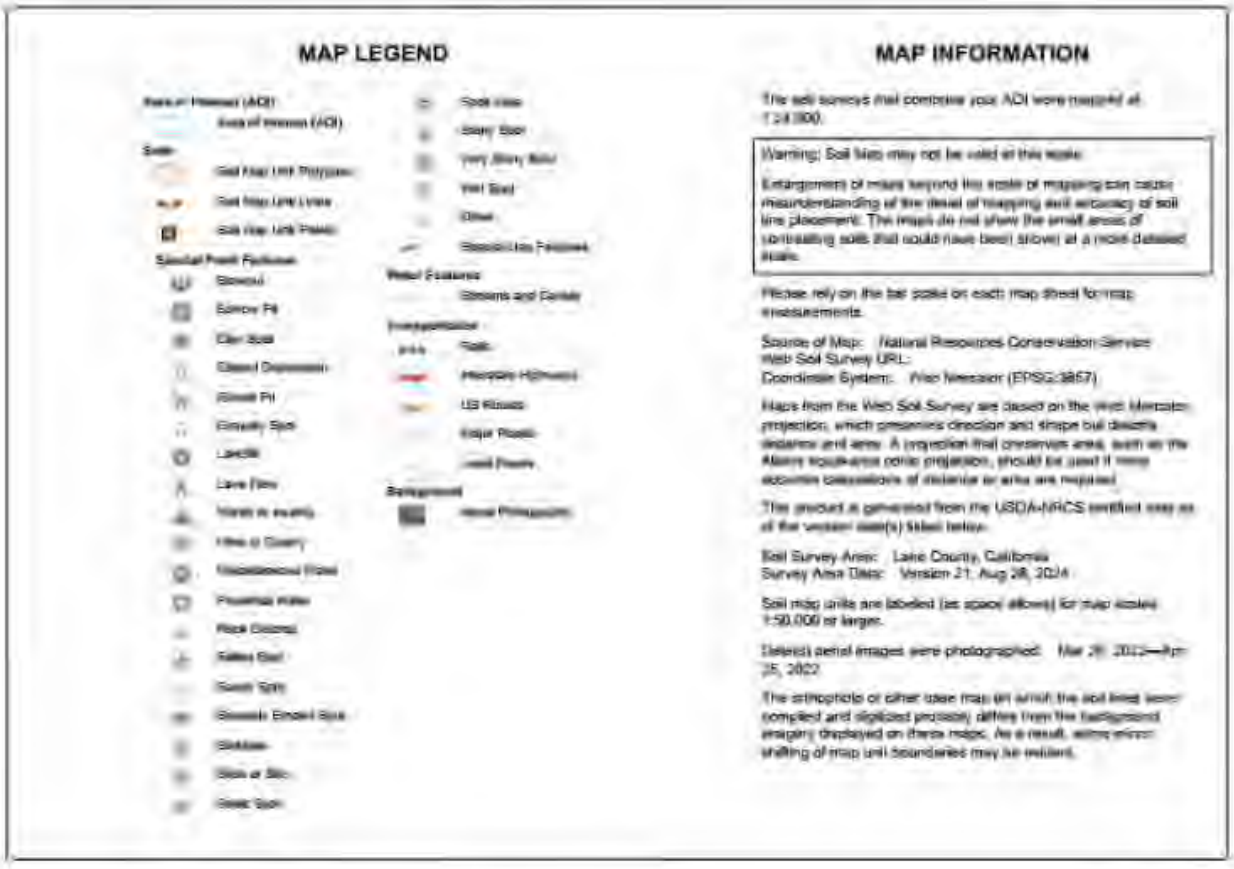
Mitigation Measure(s)

None required.

Figure 4.7-1: Soil Survey Map for the Project Area



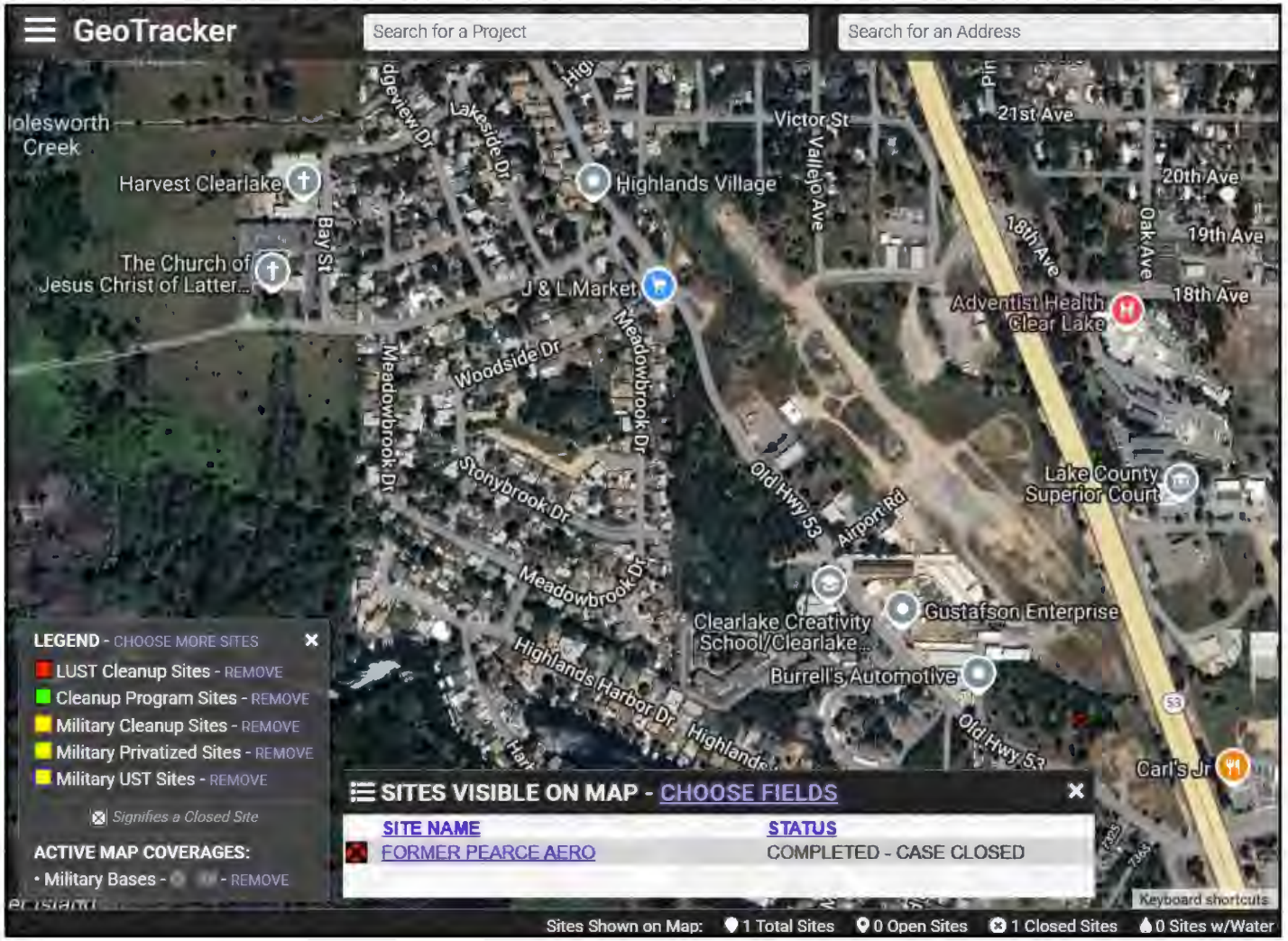
Source: United States Department of Agriculture, Natural Resources Conservation Services. "Web Soil Survey." Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed July 16, 2025.



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
103	Asbill clay loam, 5 to 8 percent slopes	16.4	28.2%
104	Asbill clay loam, 8 to 15 percent slopes	3.1	5.3%
114	Benridge-Sodabay loams, 8 to 15 percent slopes	38.7	66.4%
Totals for Area of Interest		**58.3**	**100.0%**

Figure 4.7-2: Geotracker Map



Source: California State Water Resources Control Board. "Geotracker." Available at: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603300057. Accessed March 22, 2025.

Figure 4.7-3 Photos of Buildings to be Demolished



Photo 1 - Former maintenance building in the northeastern portion of the project area; former Lake County Corporation Yard.



Photo 2- Former airport hangars.



Photo 3 - Business headquarters of Valley Glass, in the western portion of the project area.



Photo 4 – Open-sided shed in northeastern area of site; former Lake County Corporation Yard.

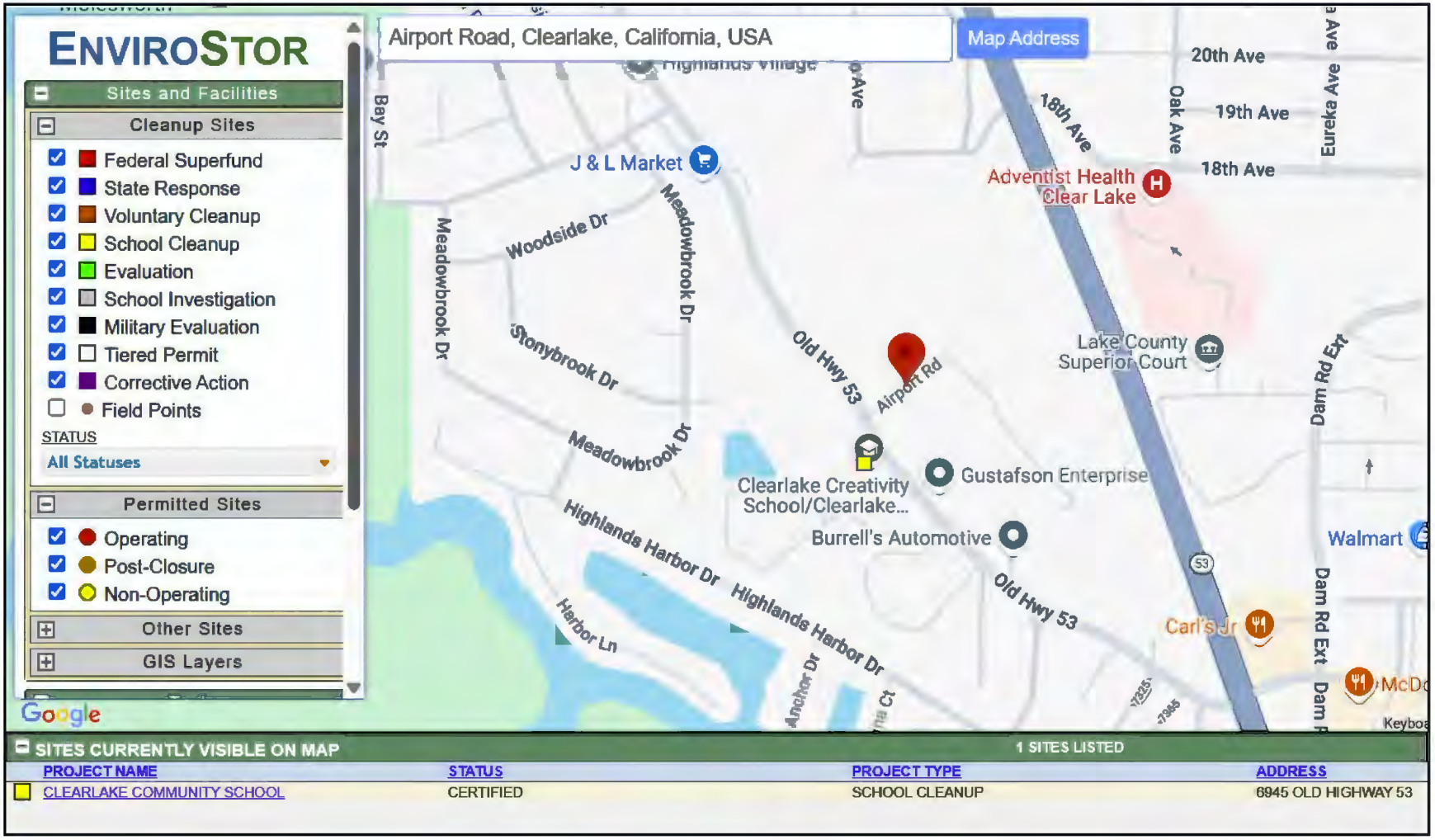


Photo 5 - Animal shelter.



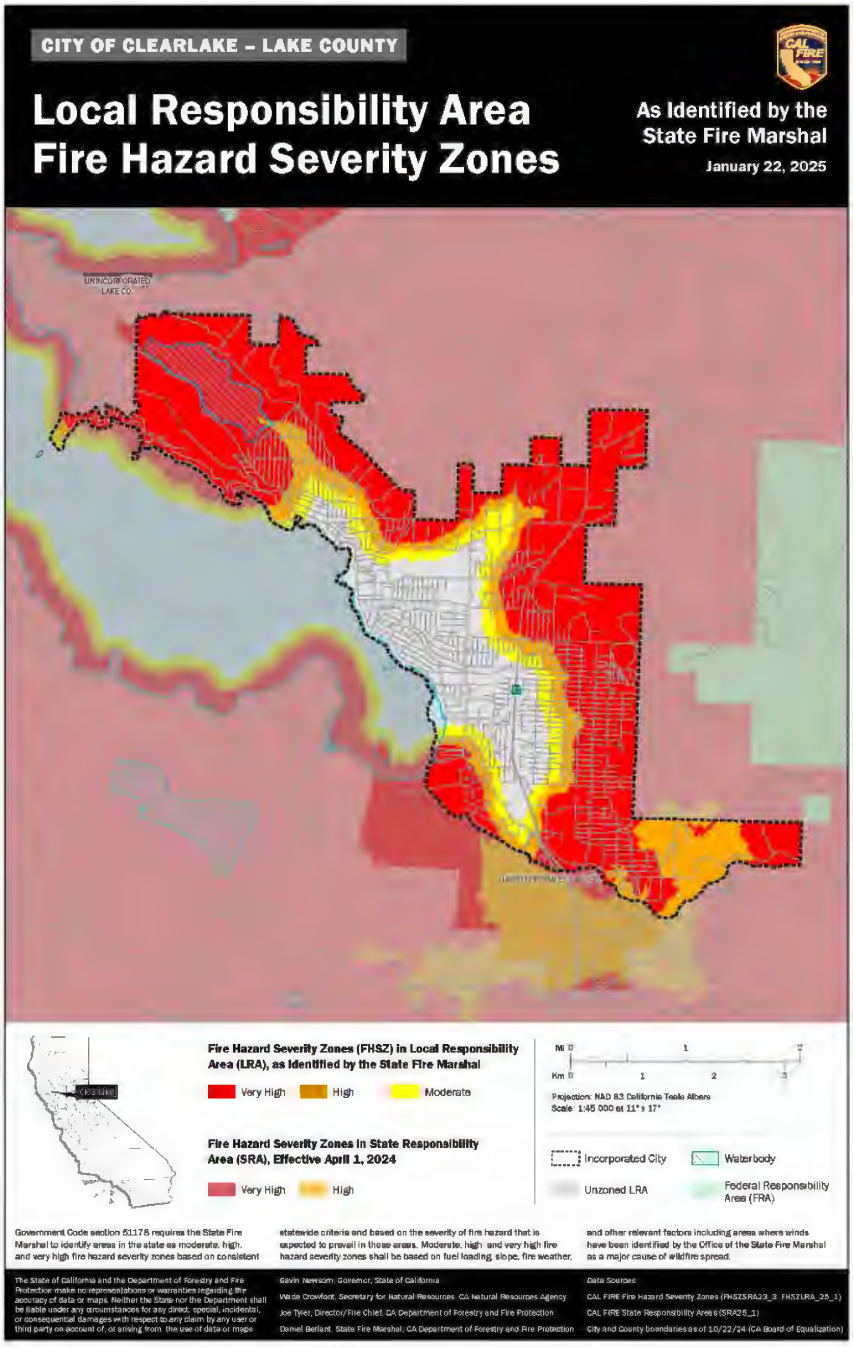
Photo 6 - Unstaffed fire station.

Figure 4.7-4: Envirostor Map



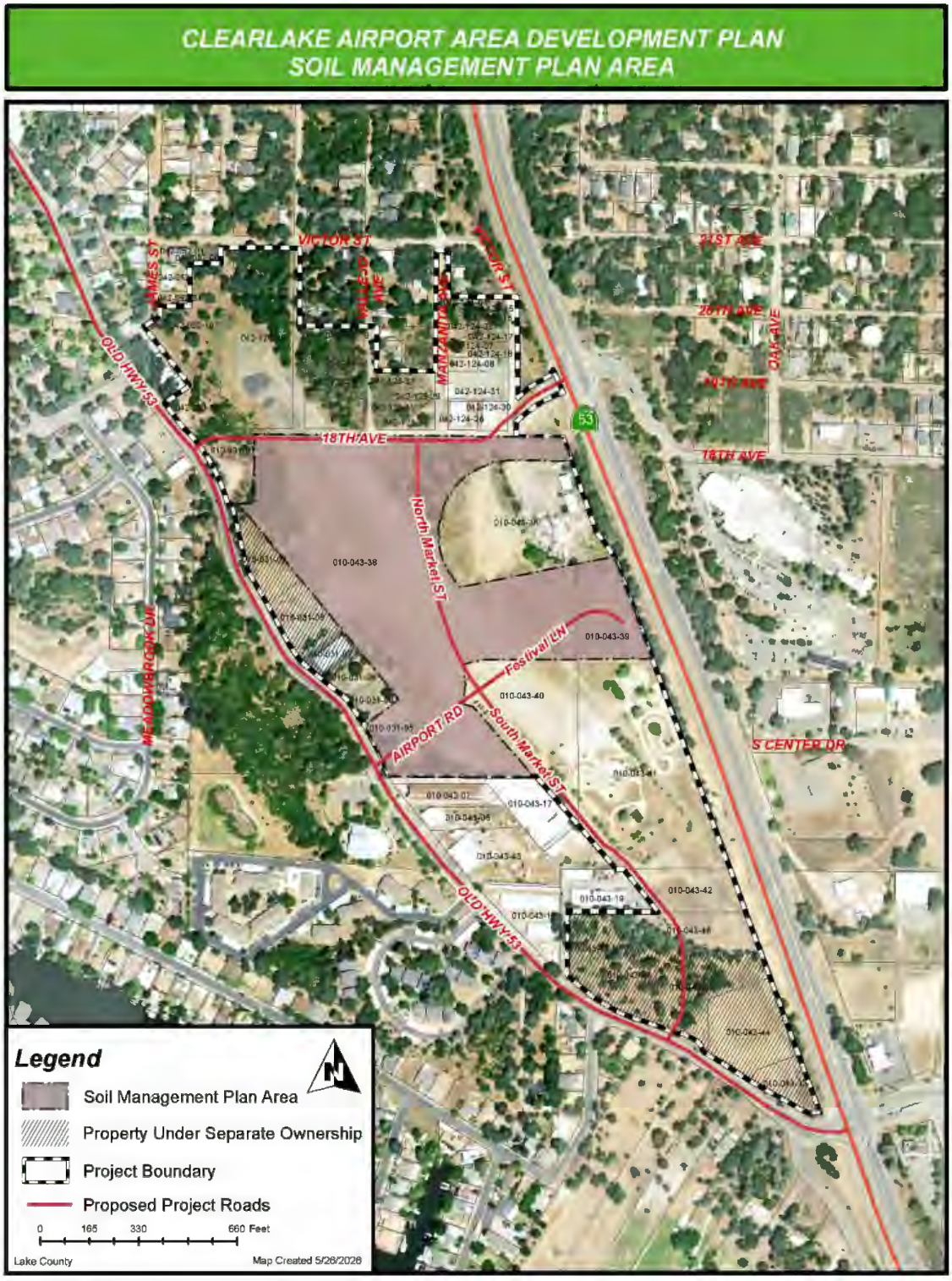
Source: California Department of Toxic Substances Control. "Envirostor." Available at EnviroStor Web-Map. Accessed March 22, 2025.

Figure 4.7-5: Fire Hazard Severity Zones in Local Responsibility Areas



Source: California Department of Forestry and Fire Protection (Calfire). "City of Clearlake – Lake County: Local Responsibility Area Fire Hazard Severity Zones." January 22, 2025. Available at https://calfire.app.box.com/s/wahuw9ny7cgn89xpxh7092ur50r1pwvj/folder/286538843558. Accessed March 22, 2025.

Figure 4.7-6: Parcels 1, 2, and 3 Subject to Soils Investigation Report



4.8 HYDROLOGY AND WATER QUALITY

4.8.1 Introduction

The purpose of this chapter of the EIR is to examine the Project's potential drainage effects and environmental impacts on water quality, both surface and groundwater.

Much of the information presented in this Chapter is from the City's 2040 General Plan, General Plan Environmental Impact Report, General Plan Background Report, the City of Clearlake Municipal Code, the Drainage Technical Memorandum prepared by California Engineering Company, and the Technical Memorandum, EIR Support Infrastructure prepared by California Engineering Company. These sources are cited in the Reference section of this Draft EIR, Appendix K. Other sources of information within this Chapter are cited separately as footnoted.

Two comments were received during the public review period or scoping meetings for the Notice of Preparation regarding this topic, one from the California Central Valley Regional Water Quality Control Board (August 8, 2024) and another from Highlands Mutual Water Company (August 17, 2024). The California Central Valley Regional Water Quality Control Board noted concerns regarding compliance with water quality codes. All cited regulations are addressed in subsection 4.8.3 of this Chapter. Comments from Highland Mutual Water Company were various, including concerns with General Plan inconsistencies, groundwater recharge, water supply availability, and drainage impacts. Each of the comments related to this topic are addressed within this Chapter. Full comments received are included in Appendix B.

4.8.2 Existing Environmental Setting

Located within the Clear Lake watershed, the City of Clearlake lies within the Central Coast Ranges of Northern California, approximately 80 miles north of San Francisco (see Figure 4.8-1). The project site is located near the southern reaches of Clear Lake, located about one mile west of the lake. Clear Lake is a large, naturally occurring freshwater lake with a total surface area of approximately 44,000 acres, with water temperatures that generally range from approximately 40 degrees Fahrenheit in the winter up to approximately 75 degrees Fahrenheit in the summer. The water contained in Clear Lake is derived from a series of streams that surround the lake. Larger tributaries to the lake include Kelsey Creek, which enters the lake from the south, and Scotts Creek, which enters the lake from the north. Both watersheds provide drainage primarily within Lake County. The 54-acre project site was previously developed with the Pearce Airport (now closed). The project site is now primarily undeveloped but previously disturbed, with the majority of the site vegetated by non-native grasses and scattered oaks and other trees primarily at the northern and southern ends of the site, with some limited development along the west side of the site next to Old Highway 53. A few active businesses exist within the development boundaries including a glass installer and some storage facilities.

Drainage

The project site is composed of relatively flat to gently rolling terrain situated at an elevational range of approximately 1,350 to 1,415 feet above mean sea level (MSL) in the Inner North Coast Ranges District of the California floristic province. The site slopes generally toward the west at varying slopes ranging up to about 2:1. The site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 3-2, Project Location Map, in Chapter 3). Regional stormwater drainage is provided by the City of Clearlake with drainage systems surrounding the project site (see Figure 4.8-3). Existing drainage on the project site is provided by a series of gravity-fed storm drains that eventually discharge into the southern reach of Clear Lake. Two locations on the site have storm drain underground piping, one located at Old Highway 53 just north Airport Drive, which consists of a large junction box structure flush with existing grade that conveys drainage under Old Highway 53 and the other on the northeast side of the site where drainage is conveyed under SR 53 via another junction box. There are no other formal drainage improvements located on the Project site.

Climate

Lake County has a Mediterranean climate typical of coastal California regions. Mediterranean climates are characterized by warm and dry summers along with moist winters. Winter is the rainy season, with temperatures averaging between 30 and 50 degrees Fahrenheit. Summer highs can exceed 90 degrees Fahrenheit, but summer temperatures can drop to 50 degrees Fahrenheit by nightfall. Because the City is located adjacent to Clear Lake, the temperature rarely falls below freezing. Year-round winds blow generally from west and northwest. Precipitation varies annually, with average rainfall of 25 to 30 inches per year for areas along the lake, with higher rates of precipitation and minor amounts of snowfall for higher elevations.

Watersheds

The Project site is situated in the southeast portion of Lake County, entirely within the Clear Lake watershed (see Figure 4.8-2). The 450-square mile watershed drains from west to east, with the downstream boundary located at the Cache Creek Dam. The site lies within the Cache Creek/Lower Arm watershed drainage basin, one of three in Lake County. The main tributaries to the Lower Arm are Burns Creek and Siegler Canyon-Copsey Creeks. Clear Lake itself drains to the east through Cache Creek, which is the only outlet for the lake, and Cache Creek flows into the Sacramento River.

Surface Water Quality

Surface water quality is affected by point source and non-point source pollutants. Point source pollutants are those emitted at a specific point, such as a pipe, while non-point source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, agricultural lands, or landscaped areas. Point source pollutants are controlled with pollutant discharge regulations or Waste Discharge Requirements (WDRs). Non-point source pollutants are more difficult to monitor and control although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contains oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from agricultural and landscaped areas. Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, and agricultural practices can lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. The highest pollutant movements and concentrations usually occur during significant precipitation events at the beginning of the wet season, during the "first flush."

Water Quality of Clear Lake

The Project site drains and ultimately discharges flows to what is considered the southern reach of Clear Lake. Section 303(d) of the federal Clean Water Act (CWA) requires states to identify surface water bodies that do not meet water quality standards. These waters are placed on the Section 303(d) List of impaired water bodies. The List identifies the pollutant(s) causing impairment and establishes a schedule for developing a control plan. Listed water body pollutant combinations are generally addressed through pollutant control plans called Total Maximum Daily Loads (TMDLs). A TMDL establishes the allowable load of a pollutant or other quantifiable parameter based on the relationship between pollutant sources and in-stream water quality. A TMDL provides the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and nonpoint sources and restore and maintain the quality of the state's water resources. The current Section 303(d) List for California, including the Central Valley Region wherein the project site is located, is the 2010 List. According to the Final California 2010 Integrated Report (CWA Section 303(d) List/305(b) Report), Clear Lake is impaired for mercury and nutrients (phosphorous).[1]

Water Quality Objectives

Mercury (Clear Lake)

According to the water quality objectives of the TMDL, the methylmercury concentration in fish tissue shall not exceed 0.09 and 0.19 mg methylmercury/kg (mg/kg) wet weight of tissue in trophic level 3 and 4 fish, respectively. These objectives were derived to protect wildlife and human health. Meeting these fish tissue-based objectives would require a 60 percent reduction from current fish tissue levels. This reduction is equivalent to a 70 percent reduction in concentrations of mercury in surficial sediment from existing levels.

Historic mercury mining practices in the vicinity of Clear Lake have resulted in elevated mercury levels in the lake. The Clear Lake watershed contains the Sulphur Bank mercury mine, a US En-

[1] California State Water Resources Control Board. *Impaired Water Bodies.* California State Water Resources Control Board List of Impaired Water Bodies. Accessed July 2, 2025.

vironmental Protection Agency (EPA) Superfund site. The Clear Lake Mercury TMDL was approved by the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) in 2002 and subsequently approved by US EPA on October 20, 2003[2].

Clear Lake lies within the northern Coastal Range, which is naturally enriched with mercury. In this mercury-rich region, mercury occurs as cinnabar (i.e., mercuric sulfide) and metacinnabarite in silica-carbonate deposits. Consistent with other Coastal Range locations, some deposits may contain native mercury. In the Clear Lake Watershed, however, historical mercury mining is regarded as the major contributor of mercury discharges into the lake.

Status of Mercury TMDL Implementation Efforts

Below is a partial description of relevant implementation efforts. The Mercury TMDL includes a more detailed discussion, covering other efforts, such as ongoing remediation efforts at Sulphur Bank Mine.

Since approval of the Clear Lake Mercury TMDL, US EPA, Bureau of Land Management (BLM), US Forest Service, Caltrans, Lake County, City of Clearlake, and City of Lakeport and other Clear Lake Watershed stakeholders, including Big Valley Rancheria Band of Pomo Indians, Elem Pomo Tribe, Habematolel of Pomo of Upper Lake, Middletown Rancheria, Robinson Rancheria Band of Pomo Indians, and Scotts Valley Band of Pomo Indians, have coordinated and collaborated in their TMDL implementation efforts. These efforts include, but are not limited to, water quality monitoring, load allocation refinements, implementation plan development, pursuing project implementation funding, and leveraging resources across the watershed. Each of these federal, Tribal, state and local agencies has attended coordination meetings to discuss TMDL implementation.

Land management agencies have collaborated and coordinated in the development and preparation of implementation plans. For example, in October 2008, Central Valley Regional Water Board staff approved the Monitoring and Implementation Plan that was developed by Lake County, in coordination and collaboration with land management agencies and other Clear Lake Watershed stakeholders, for both the Clear Lake Mercury TMDL and Clear Lake Nutrient TMDL (Lake County, 2008).[3] The Monitoring and Implementation Plan describes the Nutrient and Mercury TMDLs and stakeholder efforts or plans to monitor and implement nutrients and mercury and will be periodically updated. A Memorandum of Understanding formalizing the stakeholder's intent and willingness to leverage resources, share information and cooperate in the development of the implementation plan was submitted as part of this approved package.

Central Valley Regional Water Board staff work with Clear Lake Watershed stakeholders to ensure activities across the watershed are not counter-productive to actions and efforts implementing the Clear Lake Mercury TMDL objectives. These types of actions may include, but are not limited to,

[2] California Regional Water Quality Control Board, Central Valley Region. *Final California 2012 Integrated Report (303(d) List/305(b) Report)*. Central Valley Water Quality Control Board Integrated Report 2012. Accessed July 15, 2025.

[3] Lake County Department of Water Resources. *Monitoring and Implementation Plan Clear Lake Mercury and Nutrient TMDLs. 2008.* https://www.lakecountyca.gov/DocumentCenter/View/4190/Clear-Lake-Mercury-and-Nutrients-Total-Maximum-Daily-Load-TMDL-Monitoring-and-Implementation-Plan-PDF. Accessed July 15, 2025.

the implementation of unproven technologies to remove mercury or methylmercury from sediments or waters, or ineffective best management practices (BMPs). Of particular interest is the incorporation of BMPs (e.g., water pollution controls) to control erosion in proposed projects and actions located within the Clear Lake Watershed, which are subject to the California Environmental Protection Act (CEQA) and National Environmental Policy Act (NEPA), respectively.

Nutrients (phosphorous) (Clear Lake)

Nuisance algal blooms have been observed in Clear Lake throughout the 20th century. Blooms have been well documented and described since the early 1970s. In 1986, Clear Lake was added to the Clean Water Act Section 303(d) List of Impaired Water Bodies because of nuisance algal blooms that impacted recreational uses. Existing study results and data analysis suggest that controlling phosphorus is the best approach for addressing the nuisance blooms. On June 23, 2006, the Central Valley Regional Water Board adopted Resolution No. R5- 2006-0060, *Amending the Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin Rivers Basins for the Control of Nutrients in Clear Lake (5-Year Update)*. The US EPA approved the control program as a TMDL on September 19, 2007. The focus of the control program is on reducing phosphorus loading to Clear Lake by including load allocations for point and nonpoint sources. Although phosphorus concentrations are considered to be the key contributor to the growth of blue-green algae, factors such as temperature, residence time, and water clarity, among others, play a role in algae production. In order to determine compliance with the TMDL, it was necessary to measure the occurrence of nuisance algae growth.

TMDL identifies a load allocation strategy for Clear Lake based on the watersheds that are tributary to the lake. The daily average loading of phosphorus to the lake during the simulated years (1985 to 1992) was 411.39 kg. Based on this calculation, the average annual phosphorus loading to the lake is about 150,000 kg. TMDL identifies an acceptable daily average loading rate of 239.10 kg phosphorus that would be necessary to achieve compliance with the chlorophyll-a target. This translates to an average annual loading rate of 87,271.5 kg phosphorus, a reduction of about 40 percent from estimated levels. The allowable annual phosphorus load is partitioned into point sources (wasteload allocations) and nonpoint sources (load allocations). Two point source dischargers are located in the Clear Lake watershed, the stormwater permittees (County of Lake, City of Lakeport and City of Clearlake) and Caltrans. About 2.5 percent of the Clear Lake watershed is urbanized. The stormwater permittees were given a waste load allocation of 2,000 kg phosphorus per year based on this percentage. Caltrans maintains approximately 135 miles of roads within the Clear Lake watershed. These roads represent no more than 0.1 percent of the Clear Lake watershed, so Caltrans was given a waste load allocation of 100 kg phosphorus per year. Nonpoint sources were given a load allocation of 85,000 kg phosphorus per year based on their expected percent contribution to the lake. Therefore, the total phosphorus load allocation is 87,100 kg per year. The remaining 171.5 kg of phosphorus can be considered part of the margin of safety.

Numerous actions were implemented, prior to adoption of the control program and in the ten years since the TMDL was approved, to reduce the input of sediment and nutrients into Clear Lake. A restoration project on Middle and Scotts Creeks is the most significant activity currently underway. Other actions have been implemented to control discharges from roads, urban areas, agricultural areas and other sources of phosphorus.

Status of Nutrients TMDL Implementation Efforts

Many of the implementation efforts for the Clear Lake Nutrient TMDL are parallel to the efforts identified above for the Clear Lake Mercury TMDL. The following includes a brief description of some additional efforts underway to ensure successful Nutrient TMDL implementation.

Many studies and the TMDL have named the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project as one of the most important implementation projects. The Middle/Scotts Creek watershed contributes over half of the total sediment load to the Lake. Since 1995, Lake County Department of Water Resources has been pursuing the Middle Creek Project, a project to acquire 1,650 acres of reclaimed land at the north end of Clear Lake and restore it to wetlands. This implementation project was identified in the Clear Lake TMDL, as well as other studies. The project would restore the largest damaged wetland area around the Lake, and the restored wetlands would filter water from the Scotts Creek and Middle Creek Watersheds, which contribute an estimated 57 percent of the inflow and 71 percent of the phosphorus loading to the Upper Arm of Clear Lake.[4] The United States Army Corps of Engineers (USACE) estimates that phosphorus and sediment inputs from Scotts and Middle Creeks would be reduced 40 percent by the Middle Creek Project, which amounts to an estimated 28 percent reduction for the Upper Arm of Clear Lake.

The Lake County Watershed Protection District successfully applied to the California Department of Water Resources (DWR) for Flood Protection Corridor Program grant funds in February 2003 to begin purchasing property for the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project. The agreement between the Lake County Watershed Protection District and DWR was fully executed on May 14, 2004. To date, 367 acres of land have been purchased, and an additional 676 acres of property are currently in the acquisition process.[5]

Monitoring of Clear Lake was conducted by a team of scientists with the U.S. Geological Survey, Lake County Watershed Protection District, and the University of California, Davis for development of the Clear Lake Watershed and Lake Remediation Final Report.[6] The combined watershed and in-lake monitoring efforts have provided an improved understanding of the nutrient dynamics in the Clear Lake system. The report identified the root cause of water quality problems in Clear Lake, in particular, that "[t]he low oxygen or hypoxia near the sediments during the warm dry season triggers internal loading or release of nutrients from the sediments. The addition of nutrients (especially phosphorous) is linked to the increase in [cyanobacterial harmful algal blooms, or CHABs,] capable of producing toxins and causing fish kills. Low oxygen also favors the production of methylmercury, the form that bioaccumulates, causing risks to human health and fish-consuming biota. Thus, low dissolved oxygen in Clear Lake is impacting human and wildlife health."

[4] California Environmental Protection Agency. *Clear Lake Nutrient Total Maximum Daily Load Control Program 5-year Update*. 2012. https://www.waterboards.ca.gov/rwqcb5/water_issues/tmdl/central_valley_projects/clear_lake_nutrients/cl_update_stfrpt_2.pdf. Accessed July 15, 2025.

[5] County of Lake. *Flood Protection Corridor Program*. http://www.co.lake.ca.us/Government/Directory/Water_Resources/Department_Programs/Flood_Protection_Corridor_Program.htm. Accessed July 17, 2025.

[6] University of California-Davis. *Clear Lake Watershed and Lake Remediation Final Report.* December 2024. https://clearlakerehabilitation.ucdavis.edu/sites/g/files/dgvnsk12236/files/inline-files/ClearLakeRehabilitation_FINAL_REPORT_0.pdf. Accessed July 17, 2025.

The report indicates that the key remediation goal should focus on increasing dissolved oxygen at the lake bottom to reduce the release of nutrients from the sediments during the summer. The reduction of the release of nutrients from sediments into the lake is another key to improving watershed water quality.

Municipal Stormwater Program

Lake County, City of Clearlake and City of Lakeport are co-permittees in the Municipal Stormwater Program. As co-permittees in the Municipal Stormwater Program, the county and cities have collaborated and coordinated in the development of a Stormwater Management Plan to reduce stormwater pollution in Clear Lake. This plan describes the Lake County Clean Water Program's approach to reducing stormwater pollution, while serving as the basis for the National Pollution Discharge Elimination System (NPDES) permit application to the Central Valley Regional Water Board. The Lake County Clean Water Program was developed as a requirement of the NPDES Phase II regulations and is compliant with the provisions described in NPDES General Permit No. CAS000004 (Small Municipal Separate Storm Sewer System General Permit). Lake County implements numerous BMPs through their Clean Water Program that address sediment runoff. In 2010, Lake County, in collaboration and coordination with Clear Lake stakeholders, finalized the Clear Lake Integrated Watershed Management Plan.[7] The plan described past and current conditions of the watershed and watershed management, with a goal to plan and work towards an environmentally and economically healthy watershed that benefits the community and is sustainable for future generations. This plan addresses both surface and groundwater quality concerns (see Regulatory Context section for more detail).

According to the *Clear Lake Mercury Total Maximum Daily Load Update*, several actions will continue implementing the objectives of the Clear Lake Mercury TMDL, among which are the following actions applicable to the proposed project[8]:

- Comply with all permits and programs related to improving the water quality of Clear Lake Watershed.
- Continue implementation of existing BMPs to control sediment erosion in the Clear Lake Watershed, including integrating these practices in the mitigation measures or environmental commitment discussions of those proposed projects or actions subject to CEQA or NEPA, as applicable and feasible.
- Evaluate pre- and post-construction and maintenance BMPs to ensure effectiveness in controlling sediment erosion and reducing the potential for methylmercury production in the Clear Lake Watershed.
- Implement effective BMPs to control sediment erosion in the Clear Lake Watershed.
- Implement maintenance and post-construction BMPs, as applicable to construction projects within the Clear Lake Watershed in accordance with State Water Resources Control Board's Construction General Order No. 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-006-DWQ).

[7] County of Lake. Clear Lake Integrated Watershed Management Plan. February 2010. Available at: https://www.lakecountyca.gov/1130/Clear-Lake-Integrated-Watershed-Manageme. Accessed July 17, 2025.

[8] Regional Water Quality Control Board, Central Valley Region. *Clear Lake Mercury Total Maximum Daily Load Update*. November 8, 2010.

Groundwater Resources

The Project site is near the southwestern boundary of the Clear Lake Cache Formation (CLCF) Groundwater Basin.[9] The CLCF Basin has an area of 47 square miles and is bounded at the south by the Lower Lake Valley Groundwater Basin and Cache Creek, and to the west by the Burns Valley Groundwater Basin and Clear Lake. The primary water-bearing formation in this Basin is the Cache Formation, largely made up of former lake deposits consisting of tuffaceous and diatomaceous sands and silts, limestone, gravel, and intercalated (interspersed) layers of volcanic rock. According to the Geotechnical Engineering Investigation, groundwater was not encountered in the drilling of test bores.[10]

Flooding

The Federal Emergency Management Agency (FEMA) maps the potential for flooding across the United States. FEMA mapping provides important guidance regulating development within identified flood hazard areas and planning for flood events. FEMA's National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The Project site is shown on the FEMA FIRM Panel 060033C. The project is located within Zone X, which is a zone characteristic of moderate-to-low flood risk and outside the Special Flood Hazard Area (SFHA), meaning it is not designated as a high-risk flood zone (see Figure 4.8-5).

Clear Lake Impounding Dam

Although Clear Lake is naturally occurring, the Clear Lake Impounding Dam, located at the southeastern tip of the lake along the submerged channel for Cache Creek, supports additional water storage within the lake. The Clear Lake Impounding Dam was constructed in 1914 and is owned and operated by the Yolo County Flood Control and Water Conservation District. The dam is approximately 30 feet high from toe to crest and impounds approximately 315,000 acre-feet of water. Releases from the dam are made into Cache Creek to support agriculture and additional storage located downstream in Yolo County.

[9] California Department of Water Resources. *Bulletin 118 – California's Groundwater: Basin 5-66*. 2003. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/5_066_ClearLakeCacheFormation.pdf. Accessed July 15, 2025.

[10] Moore Twining and Associates Inc. *Draft Geotechnical Engineering Investigation, Proposed Home Depot Store, Southwest Intersection State Highway 53 and 18th Avenue, Clearlake, CA*. February 22, 2008.

4.8.3 Regulatory Context

Federal

Federal Emergency Management Agency (FEMA)

The NFIP requires program participants to satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years although such a flood may occur in any given year.

Federal Clean Water Act

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the CWA establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the EPA the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges. The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

- CWA Section 208 requires the use of BMPs to control the discharge of pollutants in stormwater during construction;

- CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies; and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes TMDLs, which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standard; and

- CWA Section 404 authorizes the U.S. Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the United States, including wetlands. In California, the EPA has designated the SWRCB and its nine regional boards with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB is responsible for implementing the CWA and does so through issuance of NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges (individual permits and general permits).

National Pollutant Discharge Elimination System (NPDES)

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.). The regional water quality control boards issue these permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9).

The terms of these NPDES permits serve to implement pertinent provisions and regulations of the CWA, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the regional boards are also Waste Discharge Requirements issued under the authority of the CWA. These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore required to be updated regularly.

Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing BMPs the discharger would use to prevent and retain stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants (to be implemented if there is a failure of BMPs), and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

Reclamation Safety of Dams Act, National Dam Safety Act, and Federal Guidelines for Dam Safety

The Bureau of Reclamation's Dam Safety Program was officially implemented in 1978 with passage of the Reclamation Safety of Dams Act. The Act authorizes the Secretary of the Interior to construct, restore, operate, and maintain new or modified features at existing federal Reclamation dams for safety purposes. The program focuses on evaluating and implementing actions to resolve safety concerns at Reclamation dams. The National Dam Safety Act, reauthorized in 2014, aims to reduce risks to life and property arising from dam failure. The US Secretary of the Army is required to maintain a database of all dams in the United States, including inspection details and jurisdiction, and the Act establishes funding and authority for safety oversight and staff safety training. The Interagency Committee on Dam Safety prepared and approved federal guidelines for dam safety risk management and emergency action planning, which require federally owned dam operators to conduct risk assessments and risk reduction measures.

State

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for methyl tertbutyl ether (MTBE) and other oxygenates.

Porter-Cologne Act and the California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and each of the Regional Water Quality Control Boards power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the CWA. The Porter-Cologne Act grants the SWRCB and the regional boards authority to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each regional water quality control board must formulate and adopt a Water Quality Control Plan (commonly referred to as a Basin Plan, further discussed below) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a regional board may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Central Valley Regional Water Quality Control Board

As authorized by the Porter-Cologne Water Quality Control Act, as the designated Regional Water Quality Control Board for Clearlake, the Central Valley Regional Water Board's primary function is to protect the quality of the waters within its jurisdiction for all beneficial uses. State law defines beneficial uses of California's waters that may be protected against quality degradation to include but not be limited to domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

The Central Valley Regional Water Board implements water quality protection measures by formulating and adopting water quality control plans for specific groundwater and surface water basins, and by prescribing and enforcing requirements on all agricultural, domestic, and industrial

waste discharges. The Central Valley Regional Water Board oversees many programs to support and provide benefit to water quality, including the following major programs: Agricultural Regulatory; Above-Ground Tanks; Basin Planning; CALFED (the State and federal coordinating body for management of water resources in the Sacramento- San Joaquin Bay Delta); Confined Animal Facilities; Landfills and Mining; Non-Point Source; Spills, Leaks, Investigations, and Cleanups (SLIC); Storm Water; TMDL; Underground Storage Tanks (UST), Wastewater Discharges (including the NPDES); Water Quality Certification; and Watershed Management.

Basin Plans and Water Quality Objectives

The Porter-Cologne Water Quality Control Act provides for the development and periodic review of water quality control plans (basin plans) that are prepared by the regional water quality control boards. Basin plans designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a water body (i.e., the reasons why the water body is considered valuable), while water quality objectives represent the standards necessary to protect and support those beneficial uses. Basin plans are primarily implemented through the NPDES permitting system and by issuing waste discharge regulations to ensure that water quality objectives are met. Basin plans provide the technical basis for determining waste discharge requirements and taking regulatory enforcement actions if deemed necessary. The site of the Proposed Project is located within the jurisdiction of the Central Valley Regional Water Board. A basin plan has been adopted for the Sacramento and San Joaquin River Basin (Basin Plan), which covers all of the project area.[11]

The Basin Plan sets water quality objectives for the surface waters in its region for the following substances and parameters: ammonia, bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, radioactivity, salinity, sediment, settleable material, suspended material, taste and odor, temperature, toxicity, turbidity, and pesticides. For groundwater, water quality objectives applicable to all groundwater have been set for bacteria, chemical constituents, radioactivity, taste, odors, and toxicity.

Assembly Bill 70

Assembly Bill (AB) 70 provides that a city or county may be required to contribute its fair and reasonable share of the property damage caused by a flood to the extent that it has increased the State's exposure to liability for property damage by unreasonably approving, as defined, new development in a previously undeveloped area, as defined, that is protected by a State flood control project, unless the city or county meets specified requirements.

Specific objectives for concentrations of chemical constituents are also applied to bodies of water based on their designated beneficial uses. The Basin Plan indicates the following beneficial uses for Clear Lake and Cache Creek in the vicinity of the project area, as shown in Table 4.8-1.

[11] Central Valley Regional Water Quality Control Board. Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin. State Water Resources Control Board – Central Valley Region. Revised 2019. https://www.waterboards.ca.gov/rwqcb5/water_issues/basin_plans/sacsjr_201902.pdf. Accessed July 31, 2025.

Table 4.8-1: Defined Beneficial Uses for Clear Lake and Cache Creek in the Vicinity of the Project

Beneficial Uses	Clear Lake	Cache Creek (Below Clear Lake)
Municipal and Domestic Supply	E	E
Agricultural Irrigation	E	E
Stock Waters	E	E
Industrial Process	--	E
Industrial Service Supply	--	E
Contact Recreation	E	E
Canoeing and Rafting	--	E
Noncontact Recreation	E	E
Warm Freshwater Habitat	E	E
Cold Freshwater Habitat	P	P
Cold Water Spawning	--	E
Warm Water Spawning	E	E
Wildlife Habitat	E	E

E = Existing Beneficial Use P= Proposed Beneficial Use

Source: Basin Plan. Central Valley Regional Water Quality Control Board, 2019.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) established a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. With passage of the SGMA, DWR launched the Sustainable Groundwater Management Program to implement the law and provide ongoing support to local agencies around the State. SGMA does the following:

- Establishes a definition of "sustainable groundwater management";
- Requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California;
- Establishes a timetable for adoption of Groundwater Sustainability Plans;
- Empowers local agencies to manage basins sustainably;
- Establishes basic requirements for Groundwater Sustainability Plans; and
- Provides for a limited State role.

Local and Regional

NPDES Small Municipal Separate Storm Sewer System (MS4) General Permit

The NPDES Municipal Storm Water Permitting Program regulates stormwater discharges from separate storm sewer systems. NPDES Municipal Stormwater Permits are issued in two phases. Phase I regulates stormwater discharges from large- and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons). Most Phase I permits are issued to a group of co-permittees encompassing an entire metropolitan area. Phase II provides coverage for

smaller municipalities, including nontraditional small storm sewer systems, which include governmental facilities such as military bases, public campuses, prisons, and hospital complexes. The NPDES Municipal Stormwater Permits require the discharger to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable.

The Central Valley Regional Water Board issued the NPDES General Permit No. CAS000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, which became effective on July 1, 2013. An "MS4" is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying stormwater; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works (POTW).

The City of Clearlake has been designated as a regulated small MS4 because the City's storm runoff discharges to a sensitive water body (Clear Lake). The City of Clearlake is a co-permittee with Lake County and City of Lakeport for the small MS4 permit from the Central Valley Regional Water Board. The discharges from the City's MS4 are authorized by the General Permit. The General Permit requires prohibition of non-stormwater discharges unless they are authorized; it requires implementation of BMPs to protect water quality, and preparation and implementation of a stormwater management plan, which is discussed below.

The General Permit prohibits the discharge of materials other than stormwater that are not "authorized non-stormwater discharges" or authorized by a separate NPDES permit. The permittees, in this case the City of Clear Lake, must implement BMPs that reduce pollutants in stormwater runoff to the technology-based standard of Maximum Extent Practicable (MEP) to protect water quality. MEP is the technology-based standard, which is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with structural and treatment methods where appropriate serving as additional lines of defense. The Proposed Project involves the expansion of an existing building and a parking lot; therefore, the Project would be subject to the standards established in the MS4 permit.

Lake County Groundwater Management Plan

The Lake County Watershed Protection District (Watershed District) led the development and adoption of the Big Valley Groundwater Management Plan in 1999 and the Lake County Groundwater Management Plan in 2006. The Watershed District has developed a Groundwater Management Plan (GMP) to provide guidance in managing the groundwater resources of the County.

The Watershed District has initiated several efforts to proactively address water resource issues, including documenting the status of water use and supply, identifying areas of need, and developing recommendations to ensure a supply of high-quality water into the future. The GMP, together with the Lake County Water Inventory and Analysis and the Lake County Water Demand Forecast,

increases understanding of the water resources in Lake County and provides a framework for the County and other water users to implement effective water resource management programs.[12]

Clear Lake Integrated Regional Water Management Plan

Adopted by the Lake County Board of Supervisors in 2010, the Clear Lake Integrated Regional Water Management Plan (CLIWMP) provides guidance for managing the Clear Lake watershed. It provides background on existing lake and watershed conditions and management. It uses a systemic approach to multiple watershed issues including water quality and the land use practices that affect it; natural habitats and ecosystem restoration; floodplain, lakeshore, and lakebed management; climate change; and economic uses such as tourism, recreation, and water supply. This background information is used to identify opportunities to improve watershed conditions and provide guidance for continuing watershed planning efforts. The Plan includes an assessment and actions that include:

- Surface and ground water quality and supply
- Watershed education and outreach
- Land use impacts from agriculture and development
- Erosion and sedimentation
- Fire hazard and management
- In-lake, wetlands, riparian and upland wildlife and wildlife habitat
- Lake and watershed recreation
- Ecotourism
- Aquatic and terrestrial invasive species
- Lake floodplain management
- Lake management
- Climate change

Lake County, City of Lakeport, and City of Clearlake Clean Water Program Low Impact Development Standards Manual

Lake County, in collaboration with the Cities of Clearlake and Lakeport developed and are using this Manual for Low Impact Development (LID) to reduce sediments and impacts on Clearlake and to comply with the requirements of the NPDES MS4 Permit (Order No. 2013-0001).

Low impact development, or LID, is a stormwater management practice that aims to capture, treat, and infiltrate stormwater runoff in a way that mimics pre-project site hydrology. This is accomplished through the incorporation of small-scale landscape-based features throughout a project site. Small landscape features intercept stormwater runoff and meter its flow to reduce the detrimental effects of increased peak flows. LID captures runoff, promotes natural infiltration, and processes pollutants through natural biological activity in soil, rendering some pollutants less toxic.

[12] California Department of Water Resources. Lake County Groundwater Management Plan. 2006. https://www.lakecountyca.gov/1241/Groundwater-Management. Accessed July 31, 2025.

The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

The LID Manual provides:

- Basic information on the Phase II Small MS4 General Permit and its objectives
- Assistance with determining whether a project is subject to the Phase II Small MS4 General Permit regulations
- Simple ways to reduce the volume of stormwater runoff from a project site using Site Design Measures
- Methods to reduce stormwater contamination from operations on a project site using Source Control Measures
- An introduction to Low Impact Development and resources to assist with site design incorporating LID – Stormwater Control Plan
- Explanation of a project applicant's responsibility for the operations and maintenance of bioretention features – O&M

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, strategies and actions some of which related to this project. The following are strategies/actions related hydrology to this project from the CAP:
Goal 9: Reliable, safe and equitable access to clean potable water for all Lake County communities.

Strategy 28: Water Supply Infrastructure and Emergency Coordination. Improve resilience and reliability of water sources and water delivery and treatment infrastructure.

Action 30.3: Expand enforcement of the Lake County Water Conservation Ordinance requirements to include updated standards for climate-resilient fixtures and drought-resistant landscaping in new development and major renovations.

Action 31.1: Expand the Clear Lake Clean Water Program to implement comprehensive stormwater management utilizing natural wetland systems countywide for water quality improvement and flood control.

Action 31.2: Update development review processes to require nature-based stormwater management standards and climate resilience criteria.

City of Clearlake 2040 General Plan

The General Plan contains the following policies and programs that are relevant to hydrology and water quality:

Conservation Element:

Policy CO 2.3.1	Promote use of low impact development (LID) practices.
Program CO 1.2.1.1	The City should implement policies and programs established in the Total Maximum Drainage Load Implementation into the Lake.
Program CO 2.3.1.2	The City should provide guidance for development that uses City approved LID methods for new development projects.

Safety Element:

Policy SA 1.2.2	The City shall work with the Lake County Watershed Protection District in the project review process to ensure that adequate measures are implemented to prevent flooding.
Policy SA 1.2.3	The City shall continue to work with Lake County to ensure that additional storm drainage runoff and erosion resulting from development occurring in unincorporated areas upstream from drainage channels is adequately mitigated through improvements on site and/or downstream.
Policy SA 1.2.4	The City shall enforce measures to minimize soil erosion and volume and velocity of surface runoff both during and after construction through application of the erosion control guidelines.
Program SA 1.2.2.1	The City may require new development (depending on size and impact) to prepare hydraulic storm drainage studies defining the net increase in stormwater run-off resulting from construction and require on-site detention/retention structures or improvements that ensure post-project flows are less than or equal to pre-project flows.
Program SA 1.2.3.1	The City shall request that the County refer development proposals located in the City's drainage basins identified in the Storm Drainage Master Plan to the City for review.
Program SA 1.2.4.1	The City shall require best management practices for erosion control during construction be followed for all construction projects.
Program SA 1.2.4.2	The City shall require erosion and sediment control plans for new grading or development meeting the threshold for grading permits.

Public Facilities Element

Program PF 7.1.2.1	The City shall develop a Low Impact Development (LID) program which outlines approved on-site stormwater runoff mitigation measures.
Program PF 7.1.2	New development proposals shall be reviewed for adequate storm-water management and capacity.

Clearlake Municipal Code

The Municipal Code Chapter 14, Storm Water Management Ordinance, contains the City's flood-plain management regulations, which addresses requirements and provides standards in order to promote public health, safety, and general welfare, and minimize public and private losses due to flood conditions within the City.

Municipal Code Chapter 9, Building and Housing, Section 9.14, which incorporates by reference the 2022 California Building Standard Codes as the City's code concerning grading regulations. Grading regulations are intended to minimize hazards, prevent erosion, protect waterways and natural resources, and ensure consistency with the General Plan.

4.8.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific impacts related to hydrology and water quality. In addition, a discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact related to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would;

    - Result in substantial erosion or siltation, on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or offsite;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows;

- Result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment.

Methodology

The information contained in the Hydrology and Water Quality section of this EIR was derived primarily from the Drainage Technical Memorandum of the City of Clearlake Airport Commercial Development prepared by California Engineering. This memorandum includes the Project's preliminary drainage plan and drainage calculations which provides the rational method used to determine the amount of runoff under current and proposed development conditions. An analysis of the 10-year and 100-year storms was performed. Determinations of significance were made based on the Project's modifications to existing or planned conditions, and the existing infrastructure's ability to accommodate the Proposed Project.

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 540,000 square feet of commercial building area, using the assumptions of the General Plan EIR.

Since the Project introduces significant residential development as compared to commercial development as planned under the General Plan, the characteristics of the Project as compared to the General Plan scenario relative to hydrology and water quality are generally as follows:

- Less Impervious Surface Area: Commercial properties often feature expansive parking lots and large rooftops, which contribute significantly to impervious surface area and runoff.

- Reduced Runoff Volume and Speed: Relative to residential development, commercial development leads to greater runoff volume and faster peak flow rates, increasing the risk of flooding and erosion.

- Less Complex Pollutant Mix: Commercial activities can generate a broader range of pollutants, including industrial chemicals, heavy metals, and debris, in addition to those found in residential runoff.

- Less Extensive Drainage Systems: Commercial drainage systems are generally larger and more complex than residential systems, requiring more frequent maintenance and oversight.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project's particular impacts as compared to General Plan build out of the site.

4.8-1 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

Short-Term Construction Water Quality Impacts

Development associated with the Project, including removal of some of the existing facilities located on-site, would involve grading, excavation, removal of vegetation cover, and activities associated with construction activities that could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion impacts that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. During precipitation events, these and other construction-related water quality pollutants could become entrained in stormwater flows. As discussed in the Existing Setting section, such sediment control BMPs, in compliance with the NPDES permit process, would ensure implementation of the objectives of the Clear Lake Mercury and Nutrient TMDLs.

Each phase of project construction disturbing one acre or more of soil would be required to obtain coverage under the Construction General Permit. The permit requires development and implementation of a SWPPP and accompanying monitoring plan, which must include erosion-control and sediment control BMPs that would meet or exceed measures required by the Construction General Permit to control stormwater quality degradation due to potential construction-related pollutants.

Consistent with the Lake County Clean Water Program Low Impact Development (LID) Standards Manual, the Project's grading and drainage plans incorporate features that include but are not limited to permeable pavements, vegetated swales, bioretention areas, physical structures which separate grit and solids, along with drainage inlets containing drain filter fabric. Permeable pavements may be utilized in parking areas and walkways to facilitate infiltration of stormwater into the ground, reducing runoff volumes and pollutants. Vegetated swales and bioretention areas would enhance water quality by filtering pollutants and promoting groundwater recharge. Project construction would also include construction site control and be subject to the City's stormwater control regulations which require compliance with minimum BMPs (Best Management Practice) to reduce the discharge of pollutants. Therefore, the proposed Project would not violate any water quality standards or waste discharge requirements, nor would it otherwise substantially degrade surface water or groundwater quality. Implementation of BMPs during construction activities and compliance with the existing regulatory requirements. These features have been incorporated into the Project's Storm Water Control Plan which is part of the Project Drainage Technical Memorandum (see Appendix K for Drainage Technical Memorandum City of Clearlake Airport Commercial Development prepared by California Engineering).

Long-Term Operational Water Quality Impacts

The long-term operations of the Project could result in impacts to surface water quality from urban stormwater runoff. The Project would result in new impervious areas associated with streets, driveways, parking lots, and buildings. Normal activities in these developed areas include the use of various automotive petroleum products and household hazardous materials, including cleansers, paints, fertilizers, and pesticides. These pollutants are generally referred to as non-point source pollutants. While non-point source pollutants from the Project site already exist due to limited vehicle travel and small business operations runoff, the proposed mixed-use development project could increase potential pollutants relative to existing conditions. The pollutant levels would vary based on factors such as time between storm events, volume of storm event, the types of land uses, and the density of habitation. In addition, uses associated with the proposed fueling station area at the south end of the site may involve the use, generation, storage, or transport of some hazardous materials with the potential for accidental release.

As discussed in the Regulatory Context section, the City of Clearlake has been designated as a regulated small MS4 because the City's storm runoff discharges to a sensitive water body (Clear Lake). The Project would be required to comply with a State Water Resources Control Board, MS4 Permit (Order No. 2013-0001-DWQ, as amended), which requires permittees to regulate post-construction development. To meet the NPDES permit guidelines and requirements, permanent stormwater control measures would be incorporated in order to mitigate the impacts of pollutants in stormwater runoff from build-out under the Project. The Project would incorporate site design measures, source control measures, and treatment control measures (see Appendix K, Drainage Technical Memorandum). This memo includes the proposed drainage plan and Storm Water Control Plan that shows that onsite flows will be collected and conveyed through a series of retention basins so that post-development runoff will not exceed pre-development conditions. Multi-hydrograph plots for 10- and 100-year storms are presented in attachments to the memo. The methodologies used in the memo to prepare the drainage analysis were Lake County Storm Low Impact Development Standards Manual and Rational Method per City of Clearlake Design and Construction Standards (2012 revision) section 2 Drainage Design Standards.[13]

The Project would be subject to the following design standards in the MS4 Permit:

- The post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak stormwater discharge rate will result in increased potential for downstream erosion.
- Conserve natural areas (e.g. maximize trees and other vegetation on-site).
- Minimize stormwater pollutants of concern to MEP (e.g., by implementing BMPs from the California Storm Water Best Management Practices Handbooks).

[13] Lake County Department of Water Resources. Low Impact Development Standards Manual, Design Guidance for Storm Water Treatment and Control Projects in Lake County's MS4. 2015. https://www.clearlake.ca.us/DocumentCenter/View/1689/LC_LID_Manual_2015pdf. Accessed July 31, 2025.

- Protect slopes and channels (e.g., utilize natural drainage systems to the maximum extent practicable, install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion).
- Provide storm drain system stenciling and signage.
- Properly design outdoor material and trash storage areas.
- Provide proof of ongoing BMP maintenance (e.g., allocating responsibility for maintenance of BMPs; verification to the City such as a signed statement for accepting responsibility for all structural and treatment control BMP maintenance).
- Implement structural or treatment control BMP that are designed based on the flow or volume of the runoff.
- Additional provisions applicable to the project would be provisions listed for commercial development and parking lots, such as the following:
  - Properly design areas to reduce impervious land coverage of parking areas and infiltrate or treat runoff; and
  - Properly design areas to limit oil contamination and facilitate the performance of maintenance (parking lots may accumulate oil, grease, and water-insoluble hydrocarbons from vehicle drippings and engine system leaks).

Implementation of these water quality control measures would ensure Project compliance with the guidelines and requirements set forth in the Phase II Small MS4 General Permit (Order 2013-0001-DWQ), and the Low Impact Development Standards Manual, Design Guidance for Storm Water Treatment and Control Projects in Lake County's MS4. These measures would assure potential post-construction impacts to surface water would be mitigated to a less-than-significant level.

Water Quality Impacts from Discharges to 303(d) Listed Water Bodies

Section 303(d) of the federal Clean Water Act requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." However, the project area does not directly discharge to any 303(d)-listed water bodies. Therefore, the Project would not be expected to further impair any 303(d)-listed water body.

Development and implementation of a SWPPP will utilize BMPs and technology to reduce erosion and sediments to meet water quality standards during construction. Further, the project design includes the use of stormwater quality features that will minimize non-point source pollution and long-term urban runoff impacts. These would include site design measures, source control measures, and low impact development. LID measures would include both volume-based BMPs (i.e., bioretention, infiltration features, pervious pavement, etc.) and flow-based BMPs (i.e., vegetated swales, stormwater planters, etc.). These stormwater quality features will treat runoff close to the source.

General Plan Evaluation

The General Plan EIR evaluated water quality control and groundwater management plans for potential impacts to these resources on a broad level to address impacts from future

development and to consider any conflicts with these plans. The Project Plan includes a drainage plan, prepared in accordance with the General Plan and federal, state and local regulations, that demonstrates minimal impacts to water quality

Conclusion

Through implementation of the Drainage Plan, water quality would be protected, and the impact would be ***less than significant***.

Mitigation Measure(s)
None required.

4.8-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin (*Less than Significant*)

Groundwater Supplies

The Project would rely on surface water supplies obtained from Clear Lake and delivered by Highlands Water Company and Konocti Water District (further discussed in Chapter 4.12, Public Services and Utilities). Therefore, the Project will not be using groundwater sources. As referenced in that Chapter, the water supply assessment conducted for the Project indicates there is sufficient water supplies to meet project demands during normal, single-dry, and multiple-dry water years. Thus, the Project would not substantially decrease groundwater supplies that would impede sustainable groundwater management of the basin As such, implementation of the proposed Project would result in a ***less than significant impact*** relative to groundwater supplies.

Groundwater Recharge

The Project would result in new impervious surfaces within the project site with the potential to reduce rainwater infiltration and groundwater recharge to the Clear Lake Cache Formation Groundwater Basin. As indicated in the NorthPoint Consulting Group Inc. Technical Memorandum: Groundwater Feasibility Evaluation – Airport Redevelopment Project City of Clearlake, CA, the permeability of the basin is generally low (see Appendix I). However, hydrogeologic information regarding groundwater level trends and groundwater storage for this aquifer are not available.

The new impervious surfaces (e.g., pavement, concrete, and structures) that would be built on the Project site could reduce groundwater infiltration capacity compared to the existing conditions. However, the proposed Project includes pervious areas such as landscaping and would implement LID BMPs that would provide opportunities for on-site infiltration and improved water quality. Onsite flows would be conveyed to the proposed retention basins which would allow for infiltration at a rate that of the existing condition and greater than that contemplated in the General Plan and General Plan EIR (see Drainage Technical Memorandum for the City of Clearlake Airport Commercial Development Appendix K).

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the impacts to groundwater supplies and groundwater recharge would be consistent with General Plan objectives, policies, and programs.

Conclusion

Potential impacts to groundwater recharge such that the project may impede sustainable groundwater management of the basin are not anticipated. As such, implementation of the proposed Project would have a ***less than significant*** impact relative to groundwater recharge.

Mitigation Measure(s)
None required.

4.8-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows (*Less than Significant*)

Additional runoff from project development could contribute to the flood potential of natural stream channels or contribute runoff that could exceed the capacity of the City's drainage system. If the Project is developed, the on-site impervious area would increase, leading to faster and increased levels of runoff. According to the Drainage Technical Memorandum for the City of Clearlake Airport Commercial Development, the existing impervious surface area on the site is approximately 146,550 square feet which is about 6 percent. Impervious surfaces on the site include existing roadways, paved parking and storage areas, the existing airport storage buildings, the glass business building, public works and animal control areas. This results in a total 100-year peak stormwater discharge of about 181.8 cubic feet per second runoff from the site. After development, impervious surfaces on the site would increase to approximately 1,816,577 square feet which is about 76 percent of the site. As a result, additional runoff could be generated during storm events if measures are not taken to reduce this discharge rate.

Based on the Project Drainage Plan, the increased rate of runoff would be attenuated using new on-site facilities, including bio-retention areas spread throughout the parks and landscaped areas on the project site. In general, runoff from the project site would be routed through a network of proposed bio-treatment basins, storm drain systems, and retention basin(s) to the adjacent existing connection points. The Project Drainage Plan, per the Drainage Memo, indicates that design measures such as stormwater retention/detention ponds will ensure that post-development drainage runoff conditions will not exceed pre-development conditions from the Project. In addition to the water quality treatment measures, the Project proposes to handle the expected increase in the site's post-project peak discharge relative to pre-project conditions, resulting in no net increase of peak run-off.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the impacts are to drainage are adequately addressed in the drainage plan which consistent with General Plan objectives, policies, and programs.

Conclusion

As referenced in the Drainage Technical Memorandum for the City of Clearlake Airport Commercial Development, the Project would not substantially alter the existing drainage pattern of the site or area, in a manner that would result in substantial erosion or siltation, result in flooding, or exceed the capacity of the existing or planned stormwater drainage systems. Therefore, this has a ***less than significant*** impact.

Mitigation Measure(s)

None required.

4.8-4 Implementation of the proposed Project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. (Non-Significant)

The Project site is not located within a FEMA-designated flood hazard zone. As shown in Figure 4.8-5, the entire site is located within an area of minimal flood hazard.

A tsunami is a giant wave caused by earthquakes or volcanic eruptions under the ocean. The Project site is located far from the Pacific Ocean, so there is no possibility that the Project would be impacted by a tsunami.

A seiche is a standing wave oscillating in a body of water, that within Clear Lake, would be caused by landslides or earthquakes. Should a seiche occur on Clear Lake, inundation in low lying areas in Clearlake that border Clear Lake would experience fast moving water.

Low-lying areas all around the lake, including areas in Clearlake, could potentially be inundated. Depths of inundation and zones of inundation are not currently known. However, the project site is located over a mile from the lake at an elevation above low-lying areas next to the lake, so there is very low to no possibility that the project site would be impacted from a seiche from the lake.

The Southeast Wastewater Treatment Dam (SWTD), located approximately 1.5 miles north of the City, is the only dam that has any potential to impact the City and Project site. This dam, owned by Lake County Sanitation District, consists of 40-foot-tall rock fill structure that has the capacity to store 530-acre feet of water.[14] The 2019 City of Clearlake Local Hazard Mitigation Plan identifies this dam as a potentially significant hazard to the City with the possibility of inundation of 378 acres within the Clearlake, which is about 5.5 percent of all acreage in the City. The LHMP indicates that dam failure is highly unlikely; that there have been no recorded events of dam failure in or around Clearlake and it is unlikely that a dam failure would ever occur in the future that would impact the City of Clearlake. As shown in Figure 4.8-6, the project site is not located within the dam inundation area. The data and conclusions cited herein remain consistent with those presented in the 2025 Local Hazard Mitigation Plan (LHMP), which is currently available for public review at the time of writing (July, 2025).[15]

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. The General Plan EIR addressed risk for flooding, tsunamis, seiches, and dam inundation on a broad level covering planned development for the City. The Proposed Project consistently implements the General Plan to address these impacts.

Conclusion

Given that the Project has minimal potential risk for flooding, tsunamis, seiches, and dam inundation, there is a ***less than significant*** impact associated with the release of pollutants due to these occurrences.

Mitigation Measure(s)

None required.

[14] Foster, Morrison, City of Clearlake Local Hazard Mitigation Plan, 2019.
[15] City of Clearlake. 2025 Multi-Jurisdiction Hazard Mitigation Plan: Clearlake Annex, Public Review Draft. City of Clearlake Multi-Jurisdiction Hazard Mitigation Plan Clearlake Annex 2025. Accessed July 3, 2025.

Cumulative Impacts and Mitigation Measures

4.8-5 Cumulative impacts related to violation of any water quality standards or waste discharge requirements, or substantial degradation of surface or groundwater quality (*Less than Cumulatively Considerable*)

Cumulative development would increase the amount of impervious surface in the city limits, which could affect stormwater runoff water quality. Individual projects within the overall Project would be required to provide stormwater collection and discharge facilities such that water quality is not adversely affected. Future facilities and projects would be subject to the SWRCB requirements, City of Clearlake regulations; Phase II NPDES Permit requirements; NPDES-MS4 Permit requirements; and LID Guidelines. New impervious surfaces within the Project site have the potential to reduce rainwater infiltration and groundwater recharge to the Clear Lake Cache Formation Groundwater Basin. As indicated in the NorthPoint Consulting Group Inc. Technical Memo: Groundwater Feasibility Evaluation – Airport Redevelopment Project City of Clearlake, CA, the permeability of the basin is generally low (see Appendix I). The new impervious surfaces (e.g., pavement, concrete, and structures) that would be built on the Project in combination with other development as contemplated under the General Plan could reduce groundwater infiltration capacity compared to the existing conditions. However, the proposed Project and future development projects would include pervious areas such as landscaping and would implement LID BMPs that would provide opportunities for on-site infiltration and improved water quality. The City regulates open space requirements, landscaping, and retention and detention basins to provide adequate groundwater recharge opportunities.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and cumulative to water quality would be consistent with General Plan objectives, policies, and programs.

Conclusion

The Project would rely on surface water supplies, so the project would not result in pumping groundwater. Therefore, impacts related to hydrology would be ***less than cumulatively considerable.***

Mitigation Measure(s)

None required.

Figure 4.8-1: Project Location

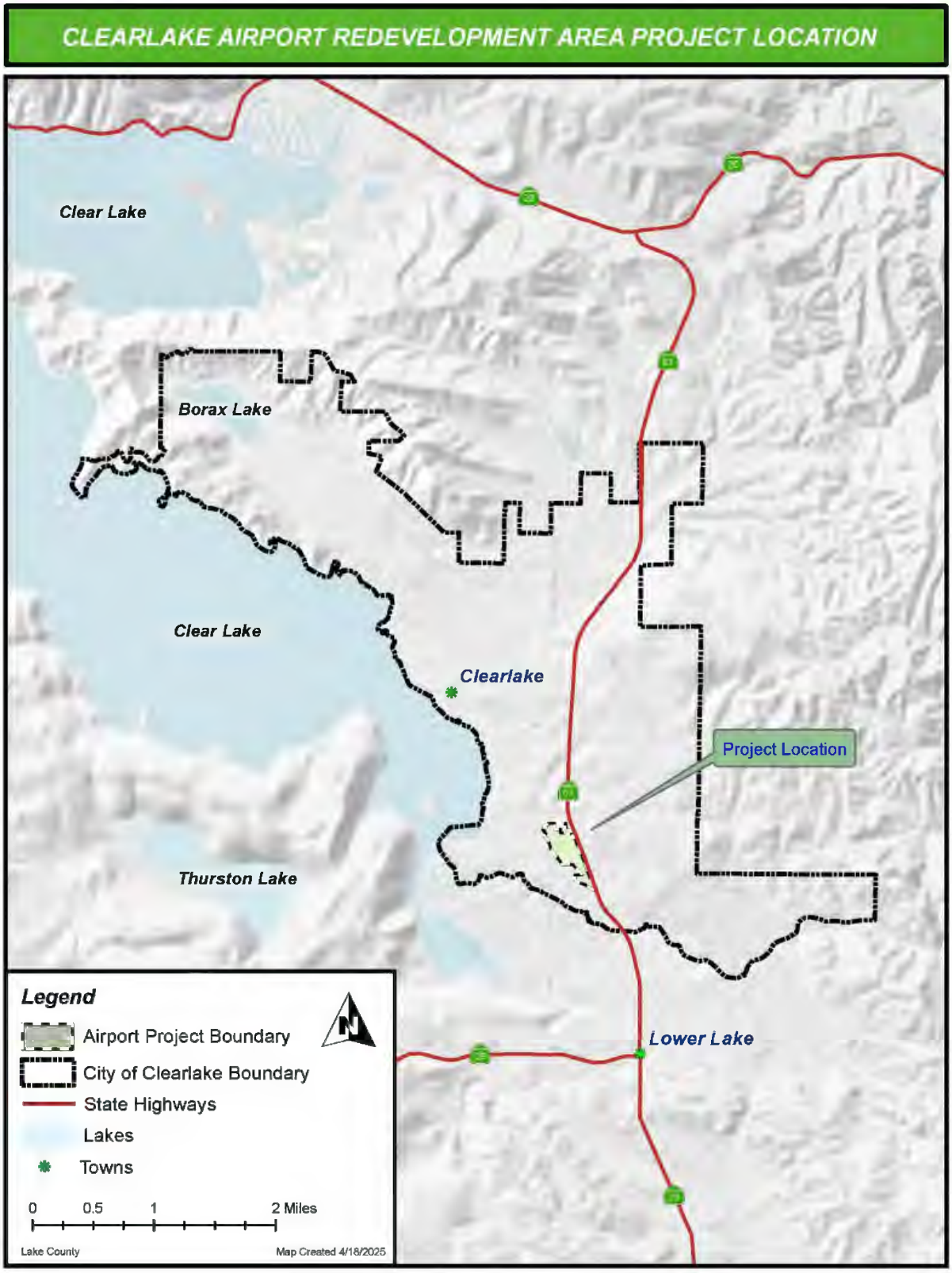


Figure 4.8-2: Groundwater Basins within Lake County and the Clear Lake Watershed

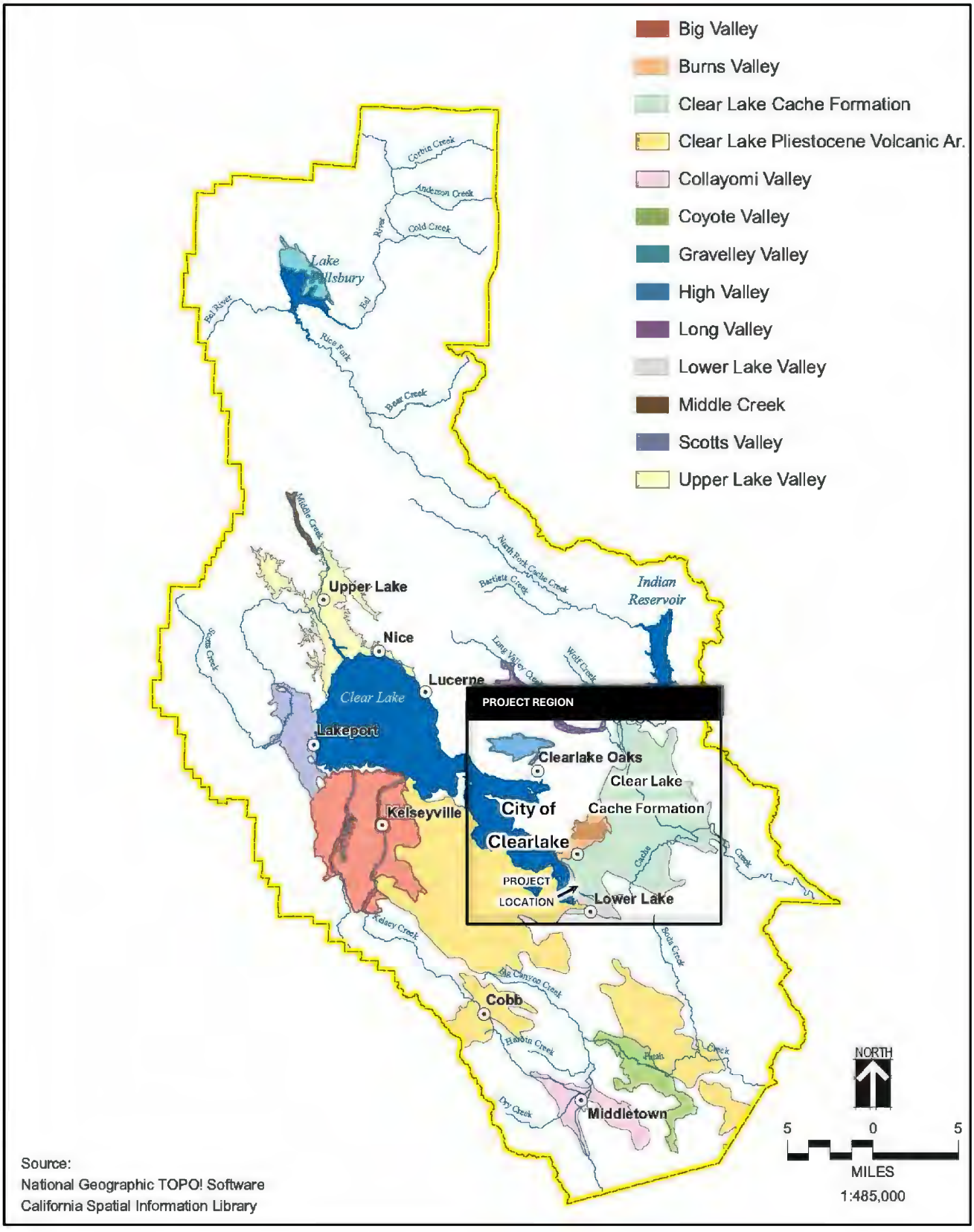


Figure 4.8-3: City of Clearlake Existing Drainage Infrastructure

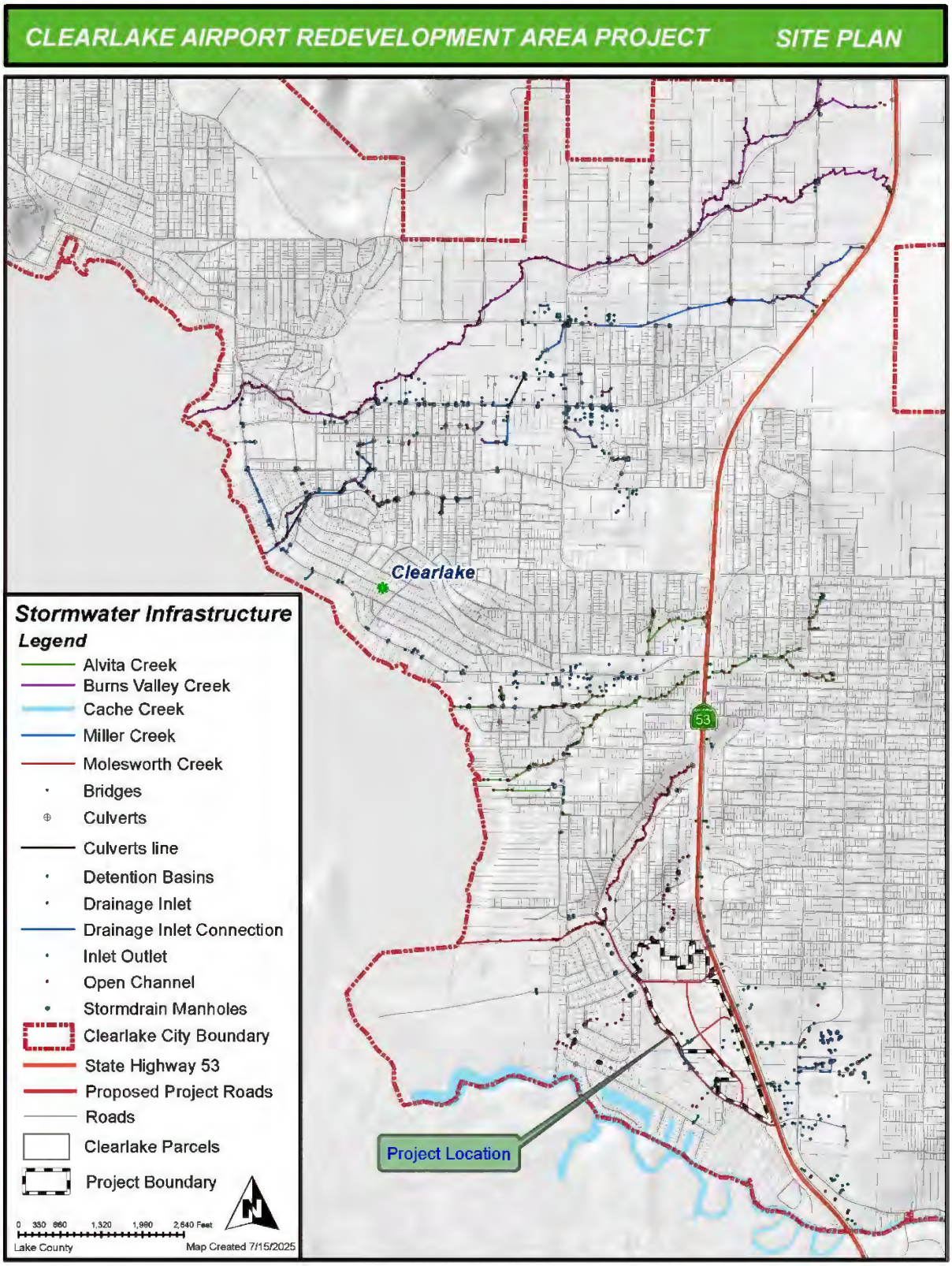


Figure 4.8-4: Project Drainage Improvements

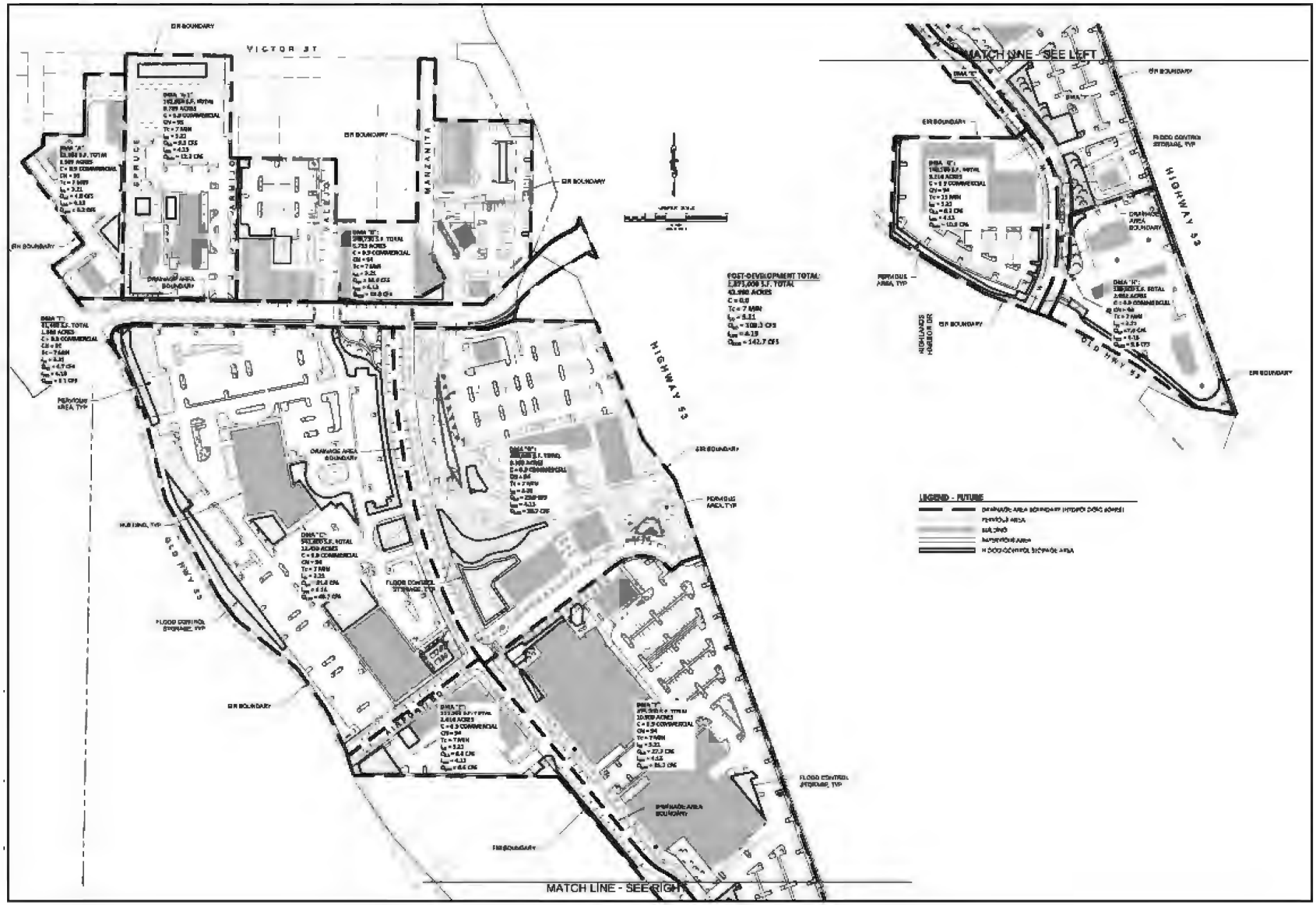


Figure 4.8-5: FEMA Flood Plain Map

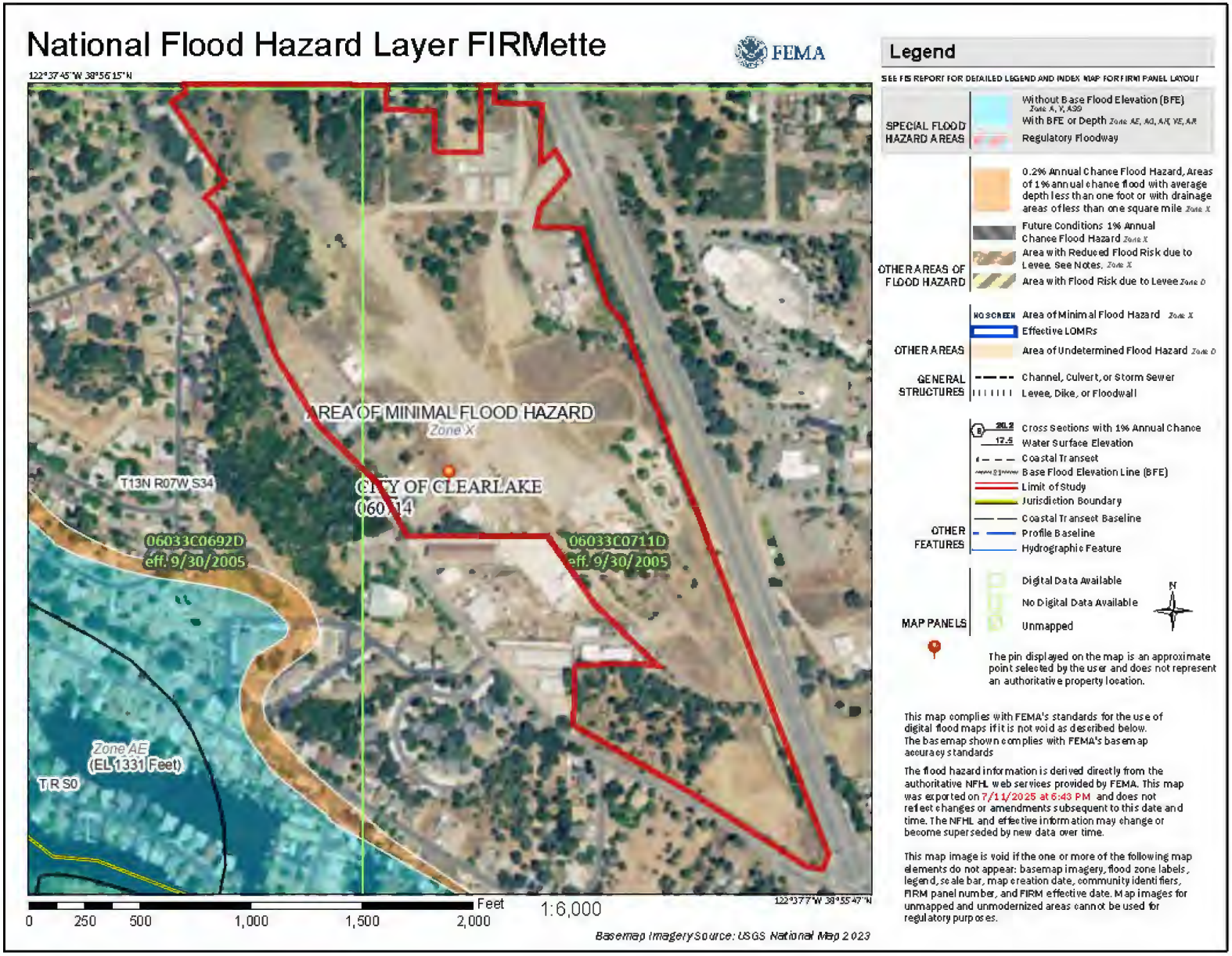
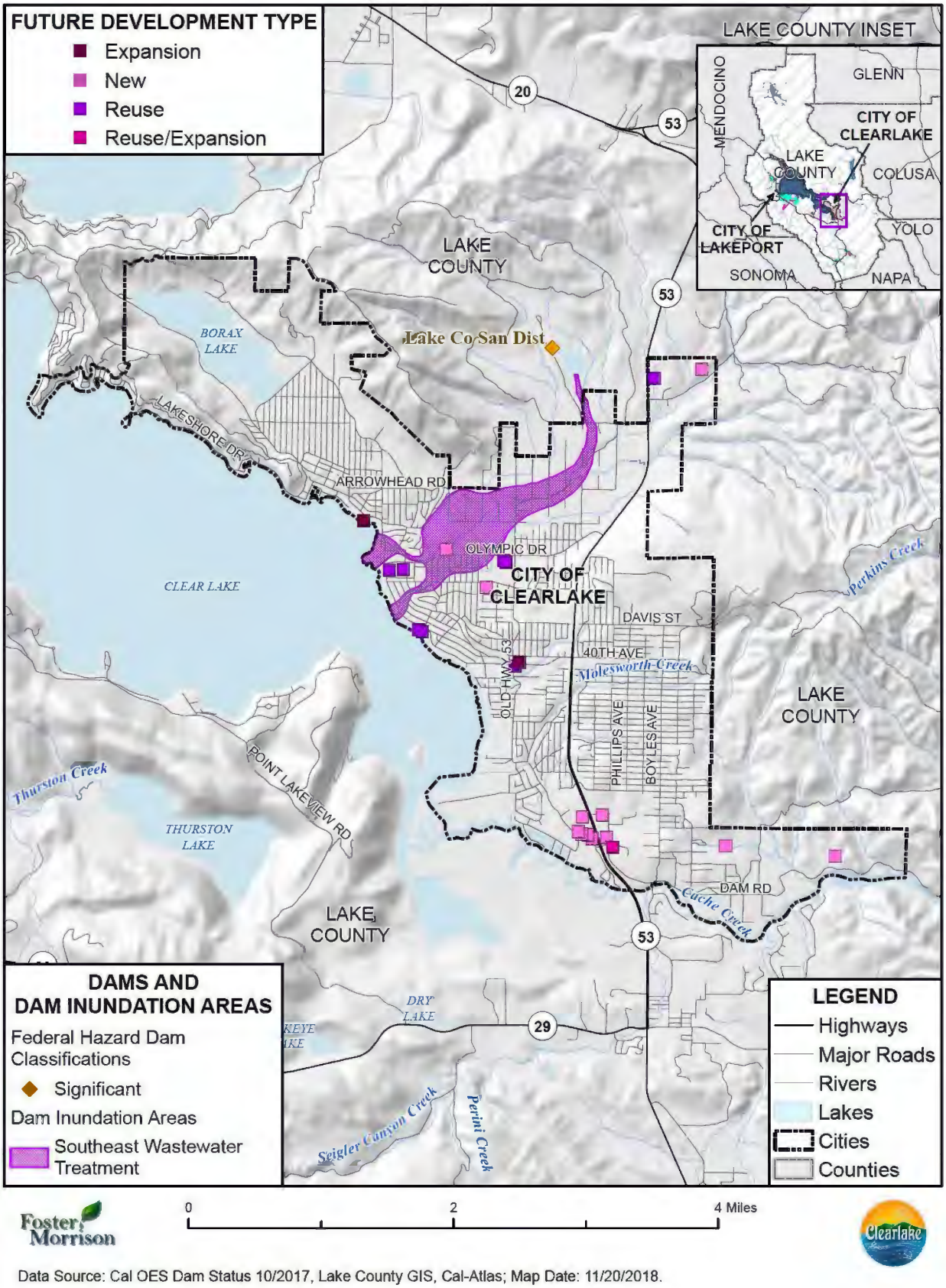


Figure 4.8-6: City Dam Inundation Areas Map



Data Source: Cal OES Dam Status 10/2017, Lake County GIS, Cal-Atlas; Map Date: 11/20/2018.

4.9 LAND USE AND PLANNING

4.9.1 Introduction

The purpose of the Land Use and Planning chapter of the EIR is to examine the Project's compatibility with existing and planned land uses in the area. The Land Use and Planning chapter discussion differs from other sections of this EIR in that plan consistencies are addressed as opposed to environmental impacts and mitigation measures.

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines states that "[…] the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The Chapter discussion includes a description of the existing land use setting of the project site, including the identification of existing land uses and General Plan policies and zoning designations.

The Project is analyzed in this Chapter for consistency with the *City of Clearlake 2040 General Plan Update*, adopted February 28, 2017. Much of the information presented in this Chapter is from the City's 2040 General Plan, General Plan Environmental Impact Report, General Plan Background Report, the 2019-27 General Plan Housing Element and the City of Clearlake Municipal Code. These sources are cited in the Reference Chapter of this report. Other sources of information within this Chapter are cited separately as footnoted.

During the NOP comment period for the EIR, comments were received regarding land use and planning as follows:

- Highlands Mutual Water Company, Tina Wallis, Attorney, Frost, Brown Todd, August 17, 2024. Noted potential inconsistencies with the General Plan due to the introduction of residential uses to the Project site that currently is planned for a regional shopping center hub; that the residential, medical, and open space uses and parking are inconsistent with goals, policies, and programs in the General Plan (see pages 4.9-3 through 4.9-22).

4.9.2 Existing Environmental Setting

The CEQA Guidelines indicate that an EIR must include a description of the physical environmental conditions in the vicinity of the project at the time the NOP was published (CEQA Guidelines section 15125, subdivision (a), as well as any inconsistencies between the proposed project and applicable general plans and regional plans (CEQA Guidelines, section 15125 [d]). The following section describes the existing physical land uses on the project site, as well as the site's land use and zoning designations.

Regional Setting

The Clearlake region is in Northern California, approximately 80 miles north of San Francisco. The City of Clearlake is situated in rural Lake County, and is bordered by Mendocino, Sonoma, Napa, Yolo, Colusa and Glenn Counties. The area is depicted on the Clearlake Highlands (7.5-Minute Series) and Lower Lake (15-Minute Series) Quadrangles published by the U.S. Geological Survey (USGS).

Project Site Characteristics

The 54-acre Project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map in Chapter 3). The Project site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (SR) 53 to the east, and Old Highway 53 to the south and west (see Figure 3-8, Preferred Site Plan from Chapter 3). The site is primarily vacant, but there are some non-residential buildings/uses located at the west side of the site along Airport Drive, including the City's Animal Control building, some public works operations, a Lake County Fire Protection District storage building, a glass shop, airport hangars, and storage buildings.

The project site was previously developed with the Pearce Airport; since its closure in 1994, much of the site was purchased by the Clearlake Redevelopment Agency in 1995 and has largely been used as a corporation yard by the City of Clearlake Public Works Department. As such, site soils are largely disturbed, and vegetation consists mostly of ruderal species. Native habitats do not appear to exist on the site, except for small, unconnected pockets of oak trees in the northern, southern and eastern areas (see Figure 4.9-2).

Surrounding Land Uses

Existing land uses surrounding the Project site are as follows (see Figure 3-4 from the Project Description Chapter):

- North: Single-family residential, as well as a place of worship approximately 200 feet to the northwest.
- South: Single-family residential to the south and southwest and commercial uses, e.g., fast food, to the southeast.
- East: State Route (SR) 53 abuts the site's eastern boundary. Across SR 53 to the east are Adventist health care facilities, a private community center (Masonic Lodge), the Lake County Campus of Woodland Community College, government facilities, and commercial uses, including the Clear Lake Shopping Center and Walmart.
- West: Old Highway 53 abuts most of the western boundary of the Project site. To the west of Old Highway 53 are single- and multi-family residential uses, a park, a high school, and a small market. Existing uses in the central west area of the Project site include personal storage facilities, automotive uses, and other commercial/industrial uses.

Existing General Plan Designations

The General Plan land use designation for the site is predominantly Commercial with two parcels designated Medium Density Residential (see Figure 4.9-3).

Commercial
The commercial land use designation allows for a range of commercial uses, primarily commercial and office uses.

Medium-Density Residential
The Medium-Density designated parcels of about 0.50 acres allow for between 0 and 15 dwelling units per acre development in accordance with Zoning Code parameters.

Existing Zoning Districts

Commercial
Consistent with the General Plan land use designation of Commercial, under the Zoning Regulations of the Clearlake Municipal Code the site is predominately zoned General Commercial (GC; see Figure 4.9-4)[1]. The purpose of this zone is to "provide sites for general commercial uses which are diverse, visually pleasing, and convenient in terms of parking and access."

Low Density Residential
Two small parcels located in the northeast area of the site are zoned Low-Density Residential. The purpose of this zone is to provide for a variety of residential products ranging from single-family to multi-family with an urban character. Clearlake Municipal Code indicates that LDR District allows up to 8 dwelling units per acre. The LDR Zone is consistent with the General Plan Medium Density Residential Land Use Designation for the site.

Scenic Corridor Zone
Areas within 300 feet of Highway 53 on the site are zoned SC, Scenic Corridor (See Figure 4.9-4). The purpose of the SC Zone is to preserve the scenic quality of the land immediately visible from State Highway 53.[2] This zone is intended to be combined with other zones adjacent to scenic highways and roads – in this case General Commercial.

Surrounding Zoning Districts

The following zoning designations apply to areas surrounding the project site (see Figure 4.9-4).

North	Low Density Residential (LDR)
East	General Commercial (GC) and Scenic Highway (SC)
West	High Density Residential (HDR) and Low Density Residential (LDR)
South	Mixed Use (MUX) and General Commercial (GC)

[1] Clearlake Municipal Code Chapter XVIII, Zoning Regulations. https://clearlake.municipal.codes/CMC/ChXVIII. Accessed July 7, 2025.
[2] Clearlake Municipal Code Section 18-13, Scenic Corridor (SC) Combining Zoning District. https://clearlake.municipal.codes/CMC/18-13. Accessed July 7, 2025.

The GC, LDR, and SC zoning designations are defined above. The HDR zone provides for higher density multi-family products with a minimum of 10 to a maximum of 25 units per acre. The MUX zone provides for a mixture of residential and commercial uses which can be made compatible with each other. This district supports service commercial, employment, and housing needs of a growing community, and the maximum allowed density is 25 units per acre.

4.9.3 Regulatory Context

Federal

There are no federal laws pertaining to land use and planning relating to this Project.

State

California Government Code Section 65300 et seq.

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a jurisdiction and consideration of any land outside its boundaries that, in the jurisdiction's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the jurisdiction's vision for the area. The General Plan is a long-range document that addresses the physical and economic character of an area over a 20-year period. Although the Plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

California Government Code Section 65800 et seq.

The State Zoning Law (California Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land use within a specific district, are required to be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure the land use designated in the general plan would also be allowable by the zoning ordinance (Government Code, Section 65860, subdivision [c]).

Regional

Non-Emergency Medical Transportation Plan

The Non-Emergency Medical Transportation Plan for Lake County identifies existing Non-Emergency Medical Transportation needs, optional services, and possible service areas, to meet the needs of behavioral health patients, seniors, persons with developmental disabilities and others with need for this service in Lake County.[3]

Lake Transit Authority Bus Passenger Facility Plan

The Lake Transit Authority Bus Passenger Facility Plan addresses mobility for all residents of Lake County, explores opportunities for existing facility infrastructure and for expanding the information services and infrastructure to better serve the needs of new users as well as members of the public with a greater need for transit accessibility.[4]

Lake County 2030 Regional Blueprint Plan

The Lake County 2030 Regional Blueprint Program provides a long-range vision intended to guide local agency staff, project designers, property owners, and developers as to how to incorporate Blueprint Principles and scenario analysis into planning documents and development project plans.[5]

Lake County Regional Transportation Bikeway Plan

The 2011 Lake County Regional Transportation Bikeway Plan identifies and prioritizes proposed commuter bikeway improvements across jurisdictions within Lake County.[6]

Lake County Active Transportation Plan

The 2016 Lake County Active Transportation Plan encourages the use of active modes of transportation for residents and visitors and serves as the non-motorized element of the Regional Transportation Plan.[7]

Lake County/City Regional Transportation Improvement Program

The 2024 Regional Transportation Improvement Program by the Lake County/City Area Planning Council is a list of all transportation capital projects within the region, as proposed for inclusion

[3] Lake Area Council of Governments, Non-Emergency Medical Transportation Plan for Lake County California, February 4, 2011. Accessed May 1, 2025.
[4] Lake Transit, Lake Transit Authority Bus Passenger Facility Plan, December 2019. https://www.lakeapc.org/wp-content/uploads/2020/01/Bus-Passenger-Facility-Plan-Rev-Final.pdf. Accessed May 1, 2025.
[5] Lake County/Area Planning Council, Lake County Regional Blueprint Plan, October 2010. https://www.lake-apc.org/wp-content/uploads/2018/06/Final-Blueprint-2030.pdf. Accessed May 1, 2025
[6] Lake County/City Area Planning Council, Regional Transportation Bikeway Plan, August 10, 2011. https://www.lakeapc.org/wp-content/uploads/2018/06/Regional-Bikeway-Plan-2011.pdf. Accessed May 1, 2025.
[7] Lake County/City Area Planning Council, Active Transportation Plan for Lake County, December 2016. https://www.lakeapc.org/wp-content/uploads/2018/06/Final-ATP-Plan-2016.pdf. Accessed July 7, 2025.

in the State Transportation Improvement Program over a five-year period, as submitted by regional transportation planning agencies.[8]

Vehicle Miles Traveled (VMT) Regional Baseline Study

Senate Bill (SB) 743 required the State to change how transportation-related impacts on the environment are evaluated under the California Environmental Quality Act (CEQA). The intent of the legislation is to change the measurement of transportation impacts analysis as part of the CEQA compliance. These changes include elimination of traditional measures of traffic congestion, such as auto delay level of service (LOS), and other similar measures of vehicular capacity, in favor of vehicle miles traveled (VMT). The VMT Regional Baseline Study supports this transition by establishing baseline travel conditions within the region, providing methodology for analysis identifying appropriate VMT impact thresholds, and evaluating feasible mitigation strategies for significant impacts.[9]

Local Plans

Clearlake General Plan 2040

California Government Code section 65300 requires local planning agencies to prepare and adopt a comprehensive, long-term general plan for the physical development of a county or city. Section 65302 regulates the substantive and topical requirements of General Plans, including mandated elements and content areas.

The Clearlake 2040 General Plan Update, adopted February 29, 2017, includes an introduction, background analysis, and topic-specific chapters that establish goals, policies, and actions. These chapters address key planning topics such as land use, circulation, housing, open space, noise, and safety. Table 4.9-4 of this chapter identifies relevant goals, policies and actions from the General Plan that are applicable to the Proposed Project.

The General Plan Land Use Map identifies the intended long-term uses of land in the City of Clearlake through land use designations. As previously discussed, the Land Use map designates the Project site for Commercial and Medium Density Residential uses.

City of Clearlake Municipal Code

Chapter 18 – Zoning Regulations

Chapter 18 of the Clearlake Municipal Code, Zoning Regulations, establishes the zoning districts that apply to property within the City, determine how the zoning districts are applied as depicted on the Zoning Map, and describes general permit requirements for development and land use in accordance with the Clearlake General Plan.

[8] Lake County/City Area Planning Council, 2024 Regional Transportation Improvement Program, December 13, 2023, https://www.lakeapc.org/wp-content/uploads/2024/02/6.1-2024-RTIP-DRAFT-FINAL-LDB.pdf. Accessed May 1, 2025.
[9] Lake County/City Area Planning Council, Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study, November 30, 2020, https://www.lakeapc.org/wp-content/uploads/2020/12/SB743-VMT-Baseline-Study-FINAL.pdf. Accessed May 1, 2025.

The City's Zoning Map identifies zoning districts at the parcel level. The project site is zoned General Commercial (GC), Low-Density Residential (LDR), and Scenic Corridor (SC) as defined in the Zoning Regulations, and further described above under "Existing Zoning Districts."

Chapter 16 –Subdivision Regulations

Chapter 16 of the Municipal Code contains regulations for subdivision of parcels. Future development of the site will involve changes to lot lines, and lot merging, and condominium development.

Other Regulations

Other regulations within the Municipal Code that could relate to future project development may include, but not be limited to, Chapter 2, Revenue, Finance, and Taxation, Chapter 5, Police Regulations, Chapter 6, General Licensing, and Chapter 9, Building and Housing.

4.9.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific impacts related to land use. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact may be considered significant if the proposed project would:

- Physically divide an established community (see Section 4.9-1 below);
- Conflict, or create an inconsistency, with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating environmental effects (see Section 4.9-2 below); or,
- Conflict with any applicable habitat conservation plan or natural community conservation plan (see Section 4.9-3 below).

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 535,500 square feet of non-residential building area, using the assumptions of the General Plan EIR (see Table 4.9-1). The full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project's particular impacts as compared to General Plan build-out of the site.

4.9-1 Physically divide an established community (*Less than Significant*)

The project site is located on the former Pearce Airport site, closed in 1994, and has since been identified in both the 1983 and current 2040 General Plans as a regional shopping center. The regional shopping center shown for the Project site in the 2040 General Plan includes the existing Clearlake Shopping Center on the east side of Highway 53, and the Project site on the west side. The regional shopping center site is divided by Highway 53 but will be connected through roadways and walkways. The Project also includes a pedestrian bridge between the west and east sides of the highway to improve community connectivity.

The Project proposes rezoning the site with a Planned Development (PD) overlay district to provide more flexibility with the arrangement of land uses and development (see Figure 4.9-5). The proposed mixed-use development shown in the north portion of the project site in the PD-1 Zone would emphasize residential development that should result in a more compatible land use with the low-density residential neighborhoods to the north of the project (see Figure 4.9-6).

General Plan Evaluation

The General Plan EIR also includes analysis of the project site as developed with commercial uses. Therefore, the proposed Project does not contain any elements that would physically divide an established or existing community. Consistent with the General Plan, the project seeks to develop greater connection through the roadway, sidewalks, including a pedestrian bridge. The pedestrian bridge would connect the east side of SR 53, which has an assortment of commercial and institutional uses, to the Project on the west side of the highway. The Proposed Project is consistent with the impact conclusions discussed and disclosed in the General Plan EIR.

Conclusion

The project would not divide an established community, and this impact is ***less than significant***.

Mitigation Measures

None required.

4.9-2 Conflict, or create an inconsistency, with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (*Less than Significant*)

The 2040 General Plan, adopted in 2017, identifies the site as a Regional Shopping Center and Key Growth Area to the City, designating the entire site for commercial land use and development. General Plan Policy ED 5.1.1 states that "The City should attract and incentivize large retailers into the City and specifically to the regional shopping hub made up of the old airport area and existing Clearlake Shopping Center area." See Figure 4.9-1 which identifies the project site as a Key Growth area within the City. Program LU 5.2.2.1 of the General Plan indicates that large commercial uses should be allowed in the Airport Cluster. Implementing the General Plan, the City zoned the Project site General Commercial. The General Plan also identifies the Project Site as part of a Regional Shopping Center. Section 18.02.10 references the General Commercial zone and indicates that the purpose of this zone is to allow for a broad range of retail, restaurant, entertainment, office institutional and service uses consistent with the General Plan and Zoning Code. Based on the assumptions used in the City of Clearlake General Plan EIR, the Project area would be developed with 535,500 square feet of commercial uses. The full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon. Table 4.9-1 below shows the baseline development evaluated in the City's General Plan EIR.

Table 4.9-1: General Plan Baseline Area Project Land Use/Building Area Summary

Land Use	Acreage	Total square feet of Building Area per Land Use	No. of Dwellings	Maximum Square Feet
Commercial	53.55	535,500	0	535,500
Medium Density Residential	0.45	1,500	3	4,500
Total	*54 acres*	*NA*	*3*	*540,000 square feet*

Source: City of Clearlake General Plan EIR, 2017 based on Clearlake General Plan Technical Background Report Review and Technical Support; EPS #152128, May 4, 2016; Table 2 - 2040 Estimated Nonresidential Growth, projects 452,000 square feet of building area for non-residential development on 44.8 gross acres by 2040 (452,000 square feet/44.8 acres is equal to approximately 10,090 square feet per acre).

The City's 2040 General Plan describes existing land uses in and around the planning area and analyzes potential impacts on established communities and conflicts with land use policies, plans, and regulations. Various state and local regulations related to land use are

applicable to the planning area, including General Plan laws and local zoning ordinances. Some of the changes in the General Plan were proposed to reflect and address new policies and regulations of other agencies, such as those relating to land use, biological resources, public safety, and traffic. The General Plan EIR determined that the new land use designations would be similar to existing land uses and that the existing regulations and policies listed would prevent significant impacts from future development under the General Plan. The EIR concluded that the cumulative mitigating benefits of the General Plan policies will result in less than significant impacts on land use and planning.

The Project includes amending the zoning on the site to add a Planned Development (PD) overlay district over the existing zoning. In accordance with Chapter 18-15 of the Zoning Code, Planned Development regulations, this will enable the City to create innovation in site planning and other aspects of project design and more effective design responses to site features than the development standards of the underlying zone.[10] This zone would be overlaid onto the existing primary zoning of the project site, which is predominantly General Commercial with two small Low Density Residential parcels (see Figure 4.9-6). The PD zone is intended to provide for flexibility in the application of zoning standards to proposed development. Its purpose is to consider and facilitate innovation in site planning and project design, and to allow more effective responses to site-specific features, land uses on adjoining properties, and potential environmental impacts than would be achievable under the development standards of the underlying zoning district.

As authorized by the PD regulations of the Zoning Code, the Airport Redevelopment Area Development Manual (see Appendix C) establishes land use framework, design standards and guidelines, and review procedures for future development of the site. The Development Manual provides specific criteria and standards to guide land use decisions and site planning. Consistent with the intent of the PD zone, the Development Manual promotes an innovative, integrated approach to site planning and land use, tailored to the site's overall development objectives. It also addresses environmental impact avoidance and/or mitigation that is outlined in this EIR in further detail, by providing procedures for processing subsequent development applications and provides performance standards for reducing impacts.

As referenced in the Manual, the PD Zone Map further articulates three separate land use sections: PD Zone District 1 (approximately 7.09 acres), to the north of the site which focuses on commercial/residential mixed use allowed; PD Zone District 2 (approximately 35.64 acres) in the middle of the site, which allows for medical/wellness and commercial uses that are generally focused on retail; and PD Zone District 3 (approximately 6.07 acres) on the south end of the site, which provides for heavier commercial uses such as automotive-oriented uses (see Figure 4.9-6). Table 4.9-2, also included in the Manual, depicts the regulated land uses between the three PD Zone Districts.

[10] Clearlake Municipal Code Section 18-15, Planned Development (PD) Combining Zone. https://clearlake.municipal.codes/CMC/18-15. Accessed July 7, 2025.

Table 4.9-2: Allowable Land Uses

Use	District 1	District 2	District 3
Accessory Structure(s)	P	P	P
Adult-Oriented Businesses	-	-	-
Automobile Repairs	-	-	AU
Automobile Sales	CU	AU	P
Auto Sound System Sales and Installation[1]	-	AU	P
Bus Depot	-	-	CU
Child/Adult Daycare 14 patrons and greater	P	P	P
Church/Places of Worship	CU	CU	CU
Commercial Cannabis	-	-	-
Department Store	P	P	P
Disposal-Composting Facility	-	-	-
Electrical Vehicle Charging Stations	P	P	P
Event Facility / Banquet Hall / Dance Hall / Lodge	P	P	P
Farmers' Markets	P	P	P
Gas Station / Light Automobile Service / Car Wash (except for electrical vehicle charging stations)[2]	-	AU	P
General Professional, Medical Office	P	P	P
Grocery Store[2]	P	P	P
Heavy Industry	-	-	-
Heavy Retail, Lumberyards and Equipment	-	AU	P
Hospital and Wellness Facilities	-	P	P
Hotels, Motels	P	P	P
Helicopter uses for emergency services[3]	P	P	P
Indoor Recreation / Personal Fitness	P	P	P
Indoor Shooting Range	-	CU	CU
Light Industry	-	-	-
Mixed-Use Housing[4]	P	P	AU
Multifamily/Multi-Dwelling Developments[4]	P	*AU	AU
Outdoor Commercial Amusement	AU	P	P
Police or Fire Station	AU	AU	AUP
Private Club	P	P	P
Public Assembly (preschools; elementary, middle and high schools; libraries; community centers)	P	P	P

Use	District 1	District 2	District 3
Restaurant; No Drive-Through	P	P	P
Restaurant; With Drive-Through	P	P	P
Retail, Indoor Sales	P	P	P
Senior Independent Living Center	AU	-	AU
Self-Storage	-	-	-
Single-Family Detached Dwelling[4]	*AU	CU	CU
Small Animal Veterinarian	AU	AU	AU
Performing Arts Facilities	P	P	P
Storage Yard	-	-	CU
Tattoo Parlor	P	P	P
Temporary Construction Yard	P	P	P
Tobacco Sales	P	P	P
Trucking	-	-	*CU
Truck Stop / Truck Wash	-	-	*AU
Warehouse Retailers	-	P	P
Warehousing and Logistics / Distribution Centers	-	-	-
Wholesale Business	-	AU	CU

P = Permitted **AU = Administrative Use** **CU = Conditional Use**

* Where uses are shown in this Project's Preferred Site Plan (Figure 3-8), uses will be allowed by right.

Notes:

1. Auto sound system installation: Auto sound installation services may be approved only as an accessory use to the retail sales of auto sound systems on the same site subject to approval of an administrative use permit. The administrative use permit review shall consider parking space displacement, noise from the operation, and the appearance and visibility of the installation area.
2. Gas Station / Light Automobile Service / Car Wash: Gas Stations/Light Automobile Services/Car Washes may be approved only as accessory to grocery stores and warehouse goods retailer uses in Zone District 2 and will be approved as a by-right use in Zone District 3.
3. Emergency service helicopter facilities consist of rooftop emergency facilities, emergency medical services helicopter landing areas, temporary helicopter landing sites, and emergency use facilities. Refer to Section 18-19.355 of the Zoning Code and Definitions section regarding Helicopter Facilities.
4. Minimum Dwelling Unit Sizes: Except as required for Accessory and Junior Accessory Dwellings, per Section 18-19.320 single-family detached dwellings, including manufactured homes, shall have a minimum 750 square feet floor area (exclusive of garages and carports). A primary dwelling unit size from 400 to 749 square feet ("micro" primary dwelling) may be approved in any residential zoning district with approval of an administrative use permit. Duplexes, townhomes, and multiplex/multiple family dwellings shall have a minimum 450 square feet of floor area.
5. Secondhand stores and pawn shops are prohibited in all zones.

A section of the site within 300 feet of Highway 53 is zoned SC, Scenic Corridor (See Figure 4.9-4). The purpose of the SC Zone is to preserve the scenic quality of the land immediately visible from State Highway 53 (Section 4.1 of this EIR discusses the project's potential aesthetic impacts including how the project might impact this SC zoned portion of the site). The project would be consistent with the Scenic Corridor regulations.

General Plan Evaluation

Overall, the project is consistent with the General Plan. Table 4.9-3 below provides a list of related General Plan Policies and Actions and describes how the project may or may not be consistent with the General Plan. The General Plan Land Use designation for most of the project site is Commercial, with two small parcels located towards the northeast side of the site designated Medium Density Residential.

General Commercial Land Uses

Consistent with the General Plan land use designation of Commercial the site would be predominately zoned General Commercial (GC; see Figure 4.9-5). The purpose of this zone is to provide sites for general commercial uses which are diverse, visually pleasing, and convenient, in terms of parking and access. The Project proposes primarily commercial, office, and institutional uses, which would be consistent with the General Plan and Zoning Code. In addition, the project proposes some mixed-use and medium-density residential development in the north portion of the site. Section 18-18.020 of the Zoning Code, Table 4, Residential, Agricultural and Institutional Uses Allowed by Zone, indicates that residential uses, such as that proposed for the project, require a Conditional Use Permit.[11] However, the project proposes amending the Zoning Map to overlay the base zoning of the General Commercial portion of the site with a Planned Development Overlay Zoning. This provides a more flexible approach to land use and development of the project site. This overlay zone on top of the primary zone of General Commercial would be consistent with the General Plan and be compliant with the land use regulations of the Zoning Code. Overall, the project is consistent with the General Plan (refer to Table 4.9-3 below).

General Plan Residential Land Uses

Two small parcels in the northeast area of the site are zoned LDR, Low Density Residential. The purpose of this zone is to provide for a variety of residential products ranging from single-family to multi-family with an urban character with a density not to exceed 8 units to the acre. The Project proposes medium density apartments (up to 8 units per acre) on these two parcels which would be consistent with the General Plan and compliant with the Zoning Code (see Planned Development Zone discussion above).

[11] Clearlake Municipal Code Subsection 18-18.020, Residential, Agricultural and Institutional Uses Allowed by Zones. https://clearlake.municipal.codes/CMC/18-18.020. Accessed July 8, 2025.

Table 4.9-3: City of Clearlake General Plan 2040 Consistency Analysis

General Plan Element, Policy and/or Program		Consistency Analysis
Land Use Element		
LU 1.1.3	Future development and redevelopment should be planned and implemented with appreciation for the physical environment and natural features of the community and with recognition of potential physical constraints to ensure appropriate siting of various types of development.	The Project would redevelop approximately 50 acres designated in the General Plan 2040 for a regional shopping center, a logical extension of commercial and mixed-use residential growth from the Clearlake Shopping Center directly to the east. The project site - previously disturbed as an airport - contains few remaining natural features. With implementation of the mitigation measures identified in Chapter 4.1-Aesthetics, Chapter 4.3-Biological Resources, and Chapter 4.4-Cultural Resources, the Project would not have significant impacts on the physical environment or remaining natural resources on site.
LU 1.1.4	Walkability and good connectivity should be promoted through continuity of the street and pedestrian system, together with a compact community form.	The Project includes a network of interconnected bike and pedestrian trails linking planned uses. The addition of mixed-use residential on the north side would further enhance connectivity and support a compact community form.
LU 1.1.7	An assortment of housing types should be provided to meet community and regional housing needs and to fulfill objectives of choice and affordability.	The Project includes variations in housing types, including apartment and mixed-use residential and commercial.
LU 2.1.1.2	The City shall encourage residential infill development, that may include reduced site development standards, such as reduced building setbacks or increased building heights for multiple lot single-family construction.	The project involves adoption of a Planned Development Zone and accompanying Development Manual incorporating reduced site development standards, such as increased building heights, to accommodate the project.
LU 3.1.2	Development should be designed to be compatible with its surroundings.	The Proposed Project includes development of a regional commercial center with mixed-use residential on the north side of the site, adjacent to existing housing, as well as in the central area of the site with proposed commercial and medical uses adjoining it. The project involves adoption of a Planned Development Zone and accompanying Development Manual to ensure neighborhood-compatible design. Compared to full commercial build-out envisioned in the 2040 General Plan, inclusion of new residential uses - particularly north of 18th Avenue - would improve compatibility with the surrounding neighborhood.
LU 5.2.2.1	Update the zoning code and map to allow for large commercial uses in the Airport cluster.	The Project creates a separate zoning district for large commercial uses in the airport area.
LU 5.2.2	Provide opportunity for regional shopping.	The Proposed Project consists of a regional commercial center with a mix of up to 250 residential units. The project implements the General Plan.
Economic Development Element		
ED 5.1.1	The City should attract and incentivize large retailers into the City and specifically to the regional shopping hub made up of the old airport area and existing Clearlake Shopping Center area.	The Proposed Project will result in enhanced opportunities to develop large retailers into the City and the old airport area.
ED 5.1.1.2	The City shall allow the use of the former airport area for additional regional retail and commercial expansion.	The Project consists of developing the former airport area to a regional commercial and mixed-use center.

Under the Project's "Preferred Site Plan," development is proposed with a maximum of 436,500 square feet of non-residential building area and up to 250 new units of multi-family residential (see Table 4.9-4). The Project proposes a smaller-scale shopping center but also introduces residential, thereby implementing many General Plan recommendations to encourage mixed-use. Introducing 250 dwelling units, the project provides housing that can be used by the employment generating uses of the project. In comparing commercial land use and mixed-use development, mixed-use development is generally considered less intensive in terms of certain impacts like traffic generation, especially compared to traditional, single-use commercial areas. Mixed-use developments contribute to environmental sustainability by promoting walkability and reducing reliance on cars. With essential services and amenities located nearby, residents are more likely to walk or use public transportation, leading to lower greenhouse gas emissions.

Table 4.9-4: Airport Redevelopment Area Project Land Use/Building Area Summary

Land Use	Zone	Preferred Site Plan Maximum Gross Square Feet (GSF)/ Densities	Total Acres per Land Use
Commercial Uses			
Hotel, general commercial, fast-food	PD-1	56,402 GSF	4.69[12]
General commercial, fast-food	PD-2	186,979 GSF	13.4
General commercial, fast-food, gas station	PD-3	55,600 GSF	5.34
Total Commercial Uses		*284,402 GSF*	*23.43 acres*
Medical Uses			
Medical office, hospital	PD-2	137,500 GSF	11.17
Total Commercial & Medical Uses[13]		***436,481 GSF***	***34.6 acres***
Multi-Family			
Townhomes, apartments, condos	PD-1	196 units	4.25
Apartments, condos	PD-2	54 units	1.9
Total Multi-Family		*250 units*	*5.64 acres*
Open Space			
	All	-	*4.54 acres*
Roadway Right-of-Way			
	All	-	*8.7 acres*
TOTAL			***54± acres***

The project includes a proposal for a Planned Development (PD) overlay district and includes a Development Manual that allows specific land uses that are evaluated for physical impacts throughout this EIR. The Preferred Site Plan shows a development intensity of up to 436,500 square feet of non-residential building area and a maximum of 250 dwelling units. By comparison, under the General Plan, the project site is contemplated to be built out at 535,500 square feet of non-residential building area (single-use commercial), which may be considered a more intensive land use.

[12] For PD Zones 1 and 2, all land use acreage for mixed uses was assigned to commercial.
[13] Commercial uses are allowed in lieu of medical uses in Table 3-4 "Allowable Land Uses" for PD-2, but are shown as medical uses in this table as they are in the Preferred Site Plan.

Implementation of the Development Manual will ensure consistency with the General Plan and compliance with the Zoning Code. For example, the project proposes 436,500 square feet of non-residential development, which is well below the 535,500 square feet of commercial building use area under the General Plan. By introducing 250 dwelling units, the project would provide housing to support the employment generation of the projects commercial and wellness-oriented development and uses.

Conclusion

The Proposed Project is consistent with the impact conclusions disclosed in the General Plan EIR and therefore, ***no impacts*** would occur.

Mitigation Measures

None required.

4.9-3 Conflict with any applicable habitat conservation plan or natural community conservation plan (*No Impact*)

There is not an applicable habitat conservation plan or natural community conservation plan covering the Project area (see Chapter 4.3-Biological Resources).

General Plan Evaluation

The proposed project is consistent with the impact conclusions disclosed in the General Plan EIR and no significant adverse impacts would occur.

Conclusion

The Proposed Project would not conflict with any applicable habitat conservation plan or natural community conservation plan and therefore, ***no impacts*** would occur.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

4.9-4 Result in cumulative impacts with regard to land use plans and policies (*Less than Cumulatively Considerable*)

The Project qualifies as an infill development project, as it is already surrounded by urban uses. Given its location and consistency with planned land uses, the Project would not divide an established community.

Potential land use conflicts are site-specific, addressed in project-level review under the project-specific Planned Development overlay district zoning regulations and accompanying Development Manual, and would not result in cumulative impacts. Under the Preferred Site Plan, the Project includes development up to 436,500 square feet of non-residential (primarily commercial) uses and 250 new multi-family dwelling units. Compared to the 2040 General Plan, the Project would result in a less intensive commercial land use scenario. Compared to the baseline from the General Plan, the project would result in less intensive commercial land development than currently contemplated in the 2040 General Plan. By introducing 250 dwelling units, the project provides housing that would support the employment-generating uses of the project.

General Plan Evaluation

The site is designated in the General Plan as a regional shopping center, and the Project implements this objective while also including up to 250 residential units. Development of the project site has been evaluated in the General Plan and associated EIR, both individually and in combination with anticipated regional growth.

Conclusion

The Project would have ***less than cumulatively considerable*** impacts related to land use and planning.

Mitigation Measure(s)
None required.

Figure 4.9-1: Preferred Growth Scenarios in Clearlake General Plan

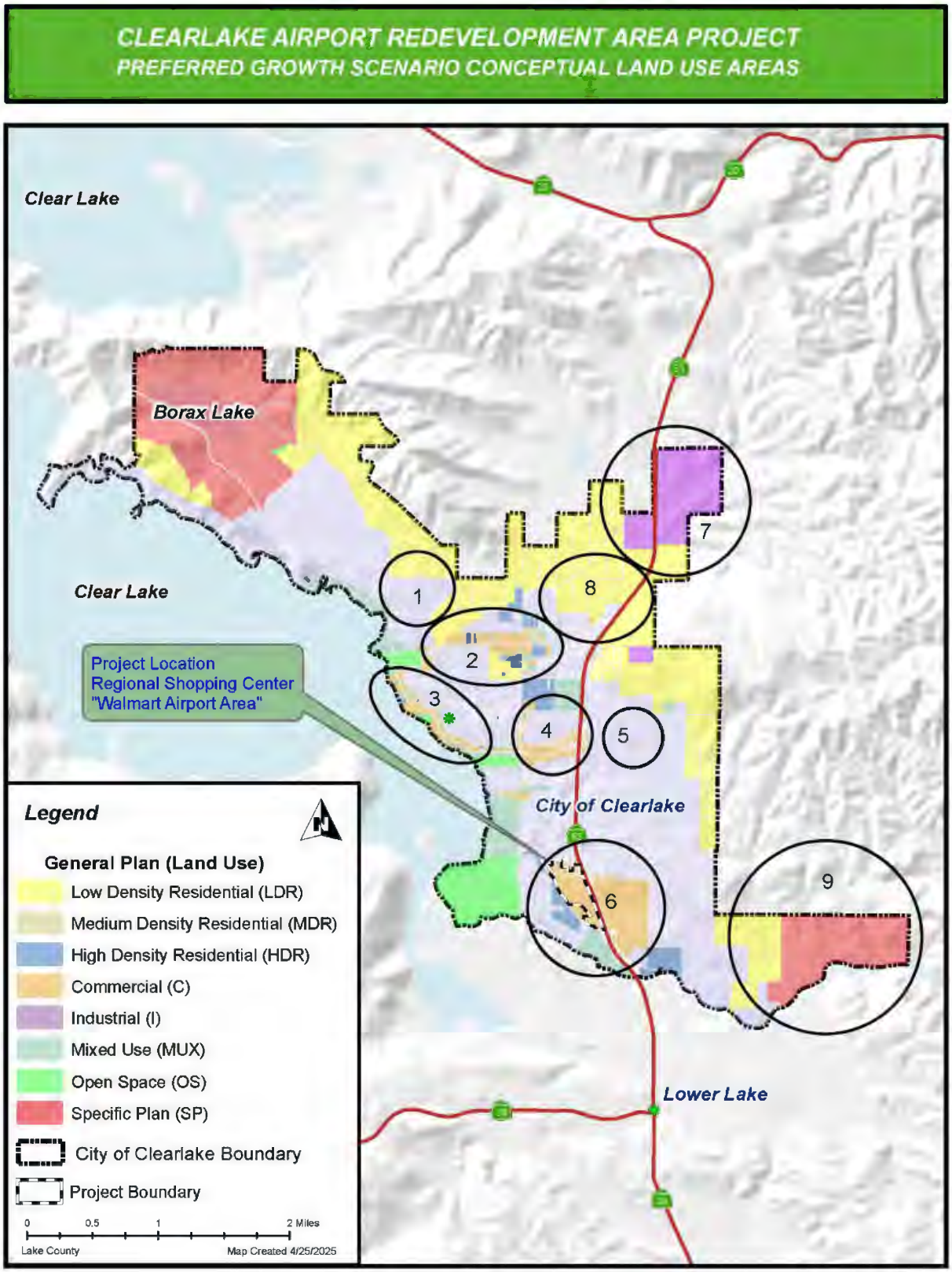


Figure 4.9-2: Surrounding Land Uses

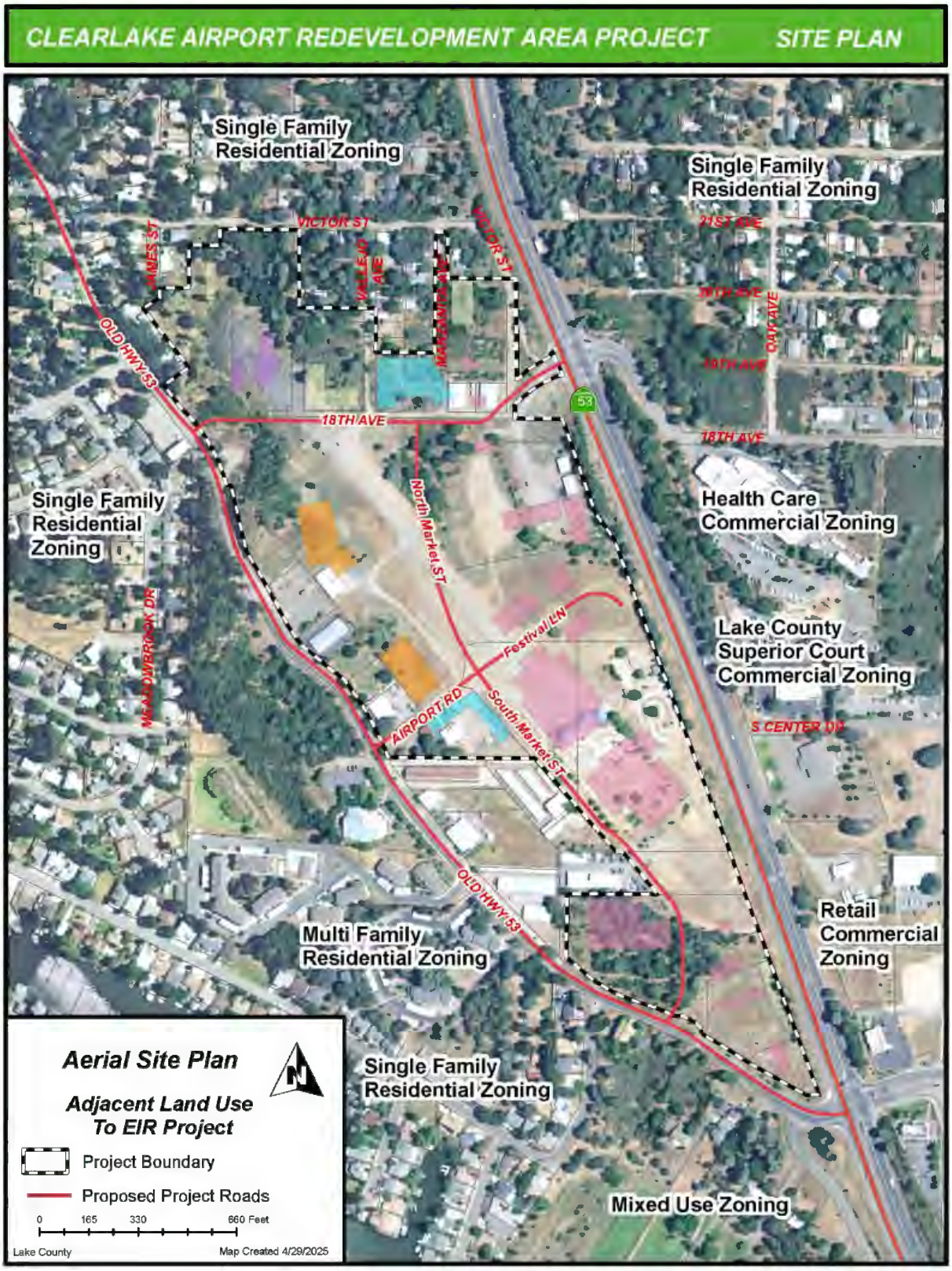


Figure 4.9-3: Existing General Plan Land Use Designations



Figure 4.9-4: Existing Zoning Districts

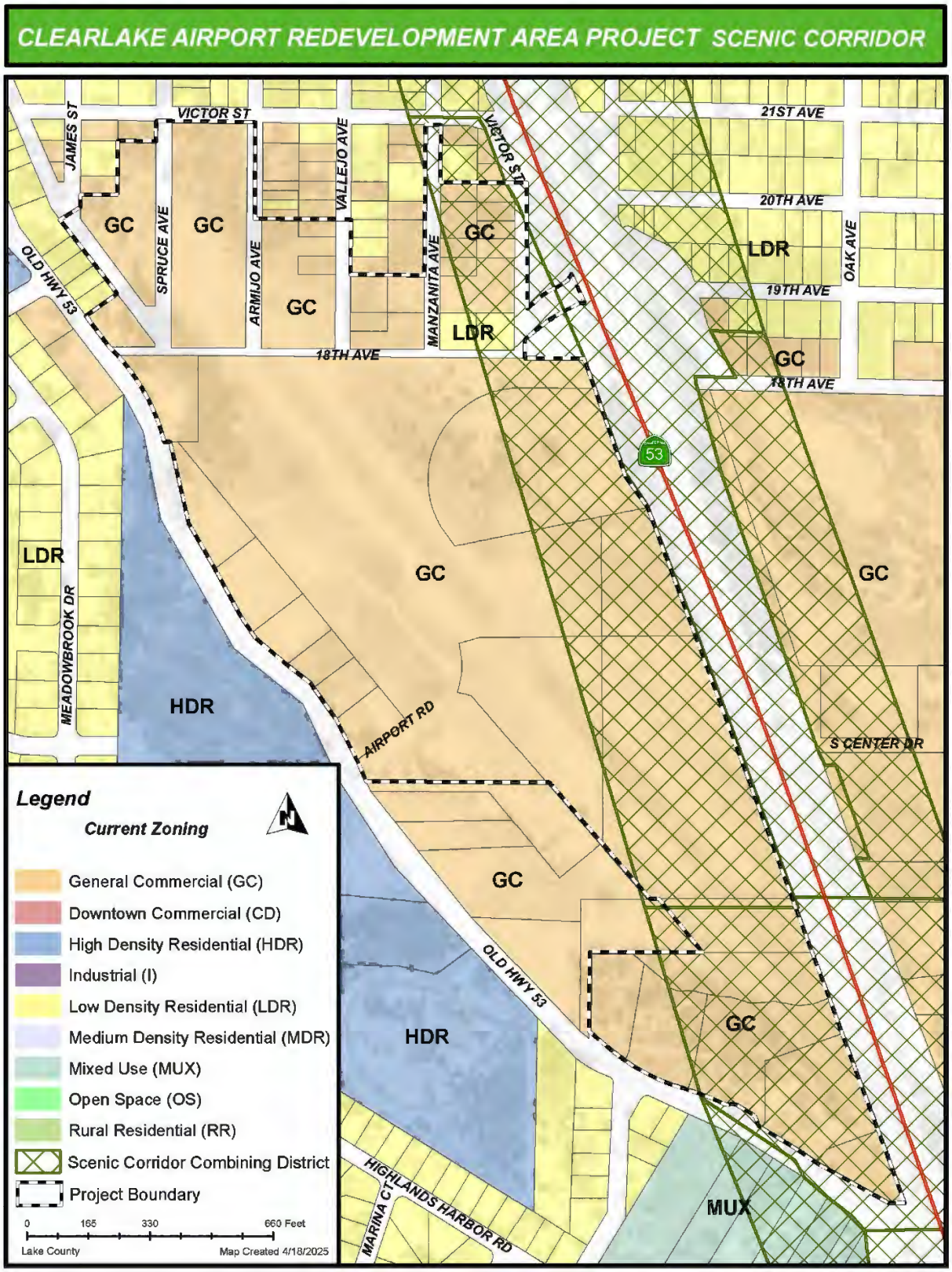


Figure 4.9-5: Proposed Zoning Map

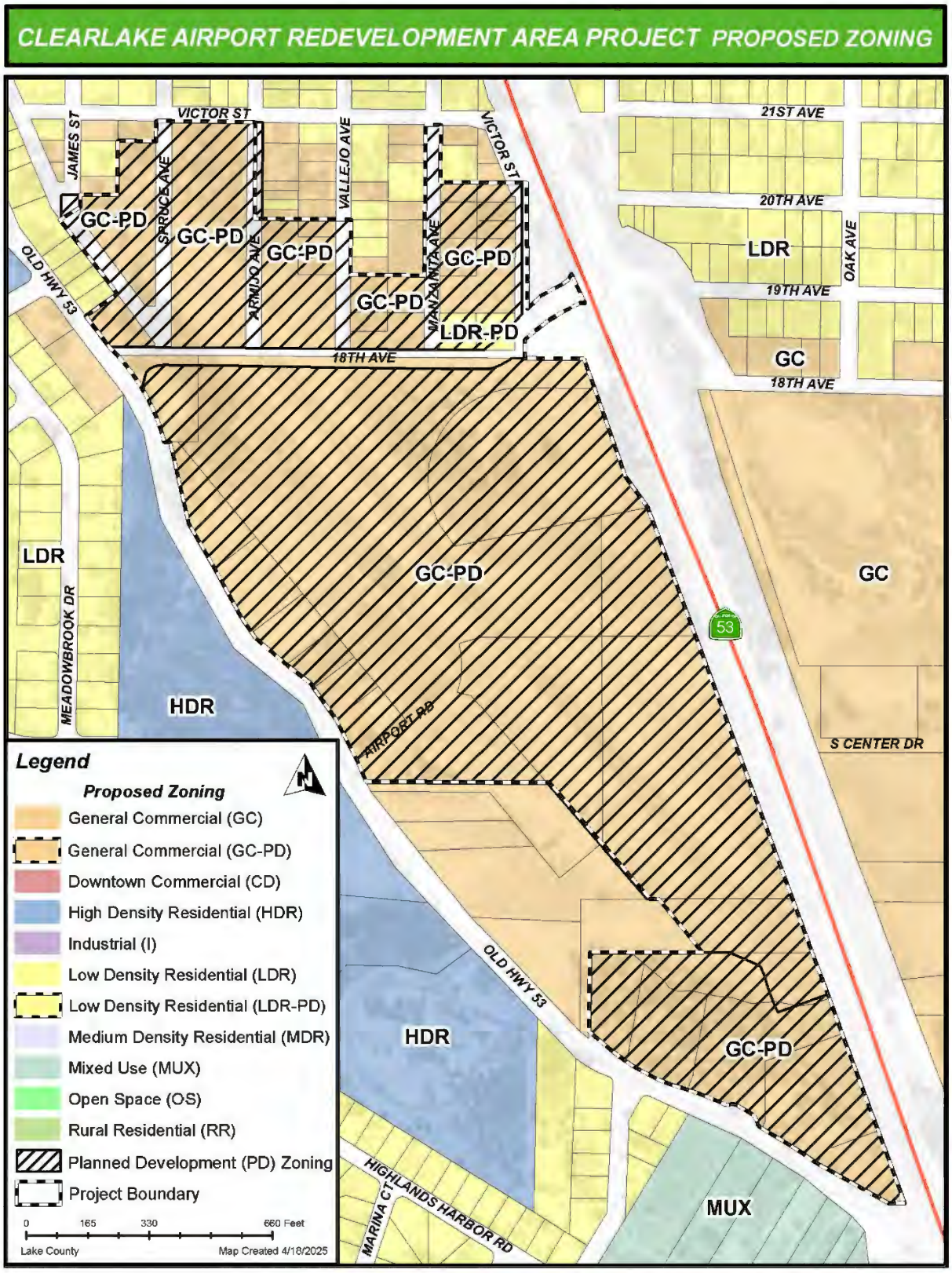
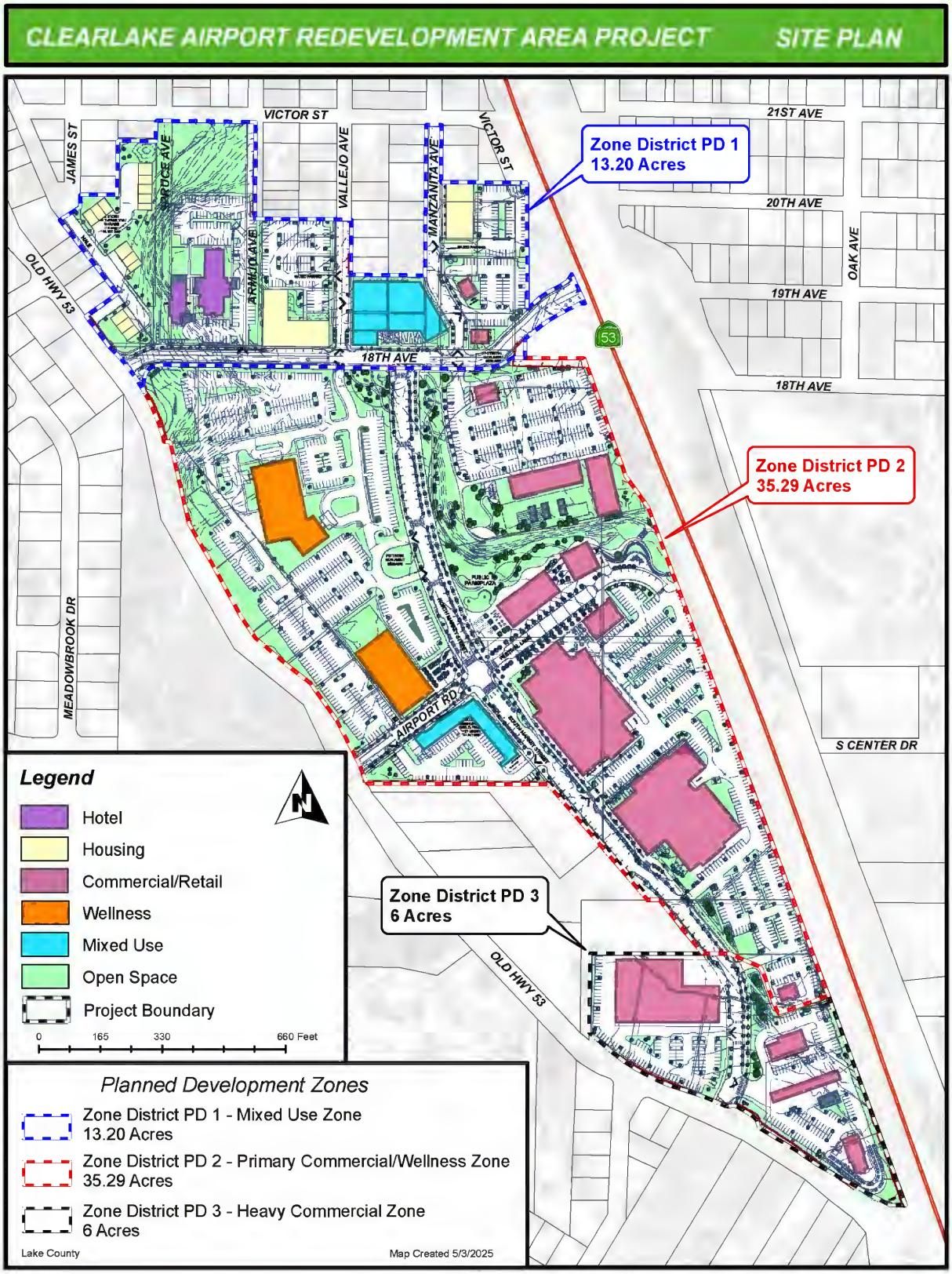


Figure 4.9-6: Planned Development Zone Districts



4.10 NOISE

4.10.1 Introduction

This chapter provides a general description of the existing noise sources on the project site, a discussion of the regulatory setting, and identifies potential noise impacts associated with new development in the City. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for potentially significant noise-related impacts.

In addition to data collected specifically for this analysis, information presented in this Chapter was also obtained from the City's 2040 General Plan, General Plan Environmental Impact Report, General Plan Background Report, and the City of Clearlake Municipal Code.

During the NOP comment period for the EIR, comments were received from Highlands Mutual Water Company (Tina Wallis, Attorney, Frost, Brown Todd, August 7, 2024), in which it was noted that the General Plan EIR acknowledges that sensitive receptors include residential uses and hospitals but does not acknowledge or assess any potential noise impacts on the Project area. Based on information provided in the General Plan EIR and the NOP, it is unclear if proposed residential and medical use areas are to be placed in areas deemed unacceptably high for noise. The impact discussions in Sections 4.10.4 and 4.10.5 of this chapter discuss sensitive noise receptors and impacts from the Project that address this comment.

4.10.2 Existing Environmental Setting

The following section provides background information on noise and vibration, consisting of a discussion of terminology associated with acoustics and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and ground-borne vibration.

Acoustic Terminology

Noise can be defined as unwanted sound. Although sound levels can be easily measured, analyzing the perception of "noise" and its physical effects is complicated by subjective judgments about the magnitude of sounds sensations in terms of "noisiness" or "loudness." "Noise" and its physical impacts on people complicate analyses. People judge the magnitude of sound sensations in subjective terms such as "noisiness" or "loudness."

This chapter describes the regulatory framework and existing conditions of the project site and related to noise, as well as the potential impacts of the Proposed Project on the environment. This section begins with definitions of noise and noise related terms and is followed by an examination of relevant federal, State, and local guidelines, policies, and standards regarding noise and vibra-

tion. The rest of the chapter provides evaluations of the potential noise and vibration related consequences of future development as envisioned with the implementation of the proposed General Plan.

The following are definitions of terms used in this section:

- **Sound:** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise:** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Intrusive:** Noise that intrudes over and above the existing ambient noise at a given location. Relative intrusiveness depends on amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

- **Decibel (dB):** A unit-less measure of sound on a logarithmic scale.

- **A-Weighted Decibel (dBA):** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Ambient Noise Level:** The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

- **Equivalent Continuous Noise Level (L_{eq}):** The mean of the noise level (or energy) averaged over the measurement period.

- **Statistical Sound Level (L_n):** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L50 level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L10 level, likewise, is the value that is exceeded 10 percent of the time (i.e. near the maximum) and this is often known as the "intrusive sound level." The L90 is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Day-Night Sound Level (L_{dn} or DNL):** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

- **Community Noise Equivalent Level (CNEL):** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m.to 7:00 a.m.

Table 4.10-1 provides examples of sound generators and their associated decibel intensities.

Table 4.10-1: Examples of Sound Generators and Associated Decibel Intensities

Sound Source	Intensity Level (dBA)
Instant Perforation of Eardrum	160 dBA
Military Jet Takeoff	140 dBA
Threshold of Pain	130 dBA
Front Rows of a Rock Concert	110 dBA
Walkman at Maximum Level	100 dBA
Vacuum Cleaner	80 dBA
Busy Street Traffic	70 dBA
Normal Conversation	60 dBA
Whisper	20 dBA
Rustling Leaves	10 dBA
Threshold of Hearing	0 dBA

A-Weighting and Noise Metrics

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by electronically filtering the frequency response of a sound level meter by means of the standardized A-weighting network which is intended to mimic the frequency response of the human ear. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor, DNL (or L_{dn}), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Effects of Noise on People

The effects of noise on people can be divided into three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the third category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Generally, most noise is generated by transportation systems, primarily motor vehicles, aircraft, and railroads. Prominent sources of indoor noise are office equipment, factory machinery, appliances, power tools, lighting hum, and audio entertainment systems. An important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment (or ambient noise) to which one has adapted. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise levels, the following relationships occur:

- Under controlled conditions in an acoustics laboratory, the trained healthy human ear can discern changes in sound levels of 1 dBA;
- Outside such controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise;
- It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of 3 dBA; and
- A ten-dBA change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

Noise Attenuation over Distance

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately 6+ dBA per doubling of distance from the source, depending upon environmental conditions (e.g., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility, spread over many acres or a street with moving vehicles (a "line" or "moving point" source), would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling distance from the source (also dependent upon environmental conditions). Noise from large construction sites (with heavy equipment moving dirt and trucks entering and exiting the site daily) would have characteristics of both "point" and "line" sources, so attenuation would generally range between 4.5 and 7.5 dBA per doubling of distance. Atmospheric absorption of sound varies depending on temperature and relative humidity, as well as the frequency content of the noise source. In general, "average day" atmospheric conditions result in attenuation at a rate of approximately 1.5 dB per thousand feet of distance.

Vibration Fundamentals & Terminology

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground

or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source. Vibration can be described in terms of acceleration, velocity, or displacement of a vibrating particle. A common practice is to monitor vibration in terms of velocity, in inches per second of peak particle velocity (IPS, PPV) or root-mean-square of velocity (expressed in velocity decibels or VdB, RMS), which represents the average energy content of a vibration over time.

Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of PPV as well as RMS velocities. In terms of RMS velocities, vibration levels below approximately 65 VdB are typically considered to be below the threshold of perception. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance.

According to the Transportation and Construction-Induced Vibration Guidance Manual (Caltrans, April 2020), operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. Ground vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Baseline Ambient Noise Environment

The existing noise environment in the project vicinity is defined primarily by noise from surface traffic on SR 53 and Old Highway 53. Noise is also generated at local businesses (i.e. parking lot movements, fast food drive through operations, loading-dock deliveries, etc.), but those sources are highly localized and typically of less intensity than the local traffic noise.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, and passive recreational areas. Hospitals are commonly considered to be noise-sensitive receptors, but it is not uncommon for the exterior areas of hospitals to be noisy given the considerable traffic activity and mechanical equipment associated with hospital operations. While it is true that the interior spaces of hospitals where patients are being treated are considered noise-sensitive, the exterior areas of hospitals are not.

Sensitive noise receptors may also include threatened, endangered or noise-sensitive biological species, although most jurisdictions have not adopted noise standards for wildlife areas. Noise-sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both duration of exposure and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land

uses include a school, existing single-family and multi-family residential uses to the southwest along Old Highway 53, and single-family residential uses to the north. Additional residential uses, a hospital, and professional uses, including the Lake County Superior Court, are located to the east of the project site, on the opposite (east) side of State Route (SR) 53.

In addition to the existing sensitive land uses in the immediate project vicinity, uses which are considered relatively insensitive to noise include highway-commercial uses (fast food), and retail outlets (Walmart, Tractor Supply Co, etc.).

Overall Ambient Noise Environment from All Sources

To quantify overall existing ambient noise environment in the vicinity of the nearest existing sensitive land uses within the project vicinity, long-term (continuous) ambient noise level measurements were conducted at six locations between April 30 and May 4, 2025. The noise survey sites are shown on Figure 4.10-1. Due to a battery malfunction at monitoring Site 3, only 24 hours of data were logged at that location versus five days of data being logged at the other five locations.

Larson Davis Laboratories (LDL) Model 820 and LxT precision integrating sound level meters were used to complete the noise level measurements. The meters were calibrated immediately before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4). The results of the long-term ambient noise survey are summarized in Table 4.10-2.

Table 4.10-2: Long-Term Ambient Noise Survey Summary

			Measured Average Hourly Noise Levels			
			Daytime (7 am – 10 pm)		Nighttime (10 pm-7 am)	
Site	Date	DNL	L_{eq}	L_{max}	L_{eq}	L_{max}
LT-1	4/30/2025	69	67	87	61	79
	5/1/2025	68	67	85	60	80
	5/2/2025	68	67	85	60	77
	5/3/2025	68	66	86	60	78
	5/4/2025	67	66	85	58	78
LT-2	4/30/2025	62	60	79	54	72
	5/1/2025	62	61	78	54	72
	5/2/2025	63	61	78	54	72
	5/3/2025	62	60	79	54	72
	5/4/2025	61	60	77	53	73
LT-3	4/30/2025	65	64	85	57	79
LT-4	4/30/2025	51	46	61	44	59
	5/1/2025	50	45	63	44	60
	5/2/2025	51	48	64	44	60
	5/3/2025	51	48	67	43	62
	5/4/2025	50	48	67	43	63
LT-5	4/30/2025	71	68	87	63	81
	5/1/2025	71	69	90	62	77
	5/2/2025	70	68	85	63	81
	5/3/2025	69	67	87	61	80
	5/4/2025	68	67	87	60	80
LT-6	4/30/2025	68	62	77	61	76
	5/1/2025	68	62	80	61	72
	5/2/2025	64	64	78	55	68
	5/3/2025	67	61	79	60	73
	5/4/2025	63	60	77	56	70

Notes:

1. Noise survey locations are shown on Figure 4.10-1

Source: Bollard Acoustical Consultants, Inc. 2025

The long-term ambient noise survey results shown in Table 4.10-2 indicate that locations near SR 53 ambient conditions were the highest, as expected. Site LT-4, which was removed from both SR 53 and Old Highway 53, exhibited lower sound levels than the locations closer to the major roadways.

Baseline Traffic Noise Environment

To quantify traffic noise levels along existing roadway networks with multiple segments, modelling is commonly used in addition to noise monitoring. Because future traffic noise levels must be modelled to predict the increases in off-site traffic noise levels which result from a project, the modelling of existing levels allows a more accurate comparison to project levels. For this project existing traffic noise exposure along nine roadway segments were modeled using the Federal Highway Administration Highway Traffic Noise Model (FHWA-RD-77-108). The model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for these roadways. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values.

Traffic data in the form of peak hour turning movements were obtained from the project transportation impact study. Other inputs were obtained from published Caltrans traffic counts, long-term noise survey data, and observations by the noise consultant. The existing traffic noise levels at the distances representing the nearest sensitive land uses to the project area roadways and distances from the centerlines of selected roadways to the 60 dB, 65 dB and 70 dB DNL contours are summarized in Table 4.10-3.

In most cases, the actual distances to noise level contours may vary from the distances predicted by the FHWA Model. Factors such as roadway elevation, curvature, grade, and shielding from local topography or structures, or elevated receivers may affect actual sound propagation.

Table 4.10-3: Baseline (Existing) Traffic Noise Levels Nearest Representative Sensitive Receptors

					Contour Distances		
#	**Roadway**	**Segment Description**	**Distance**	**DNL**	**70**	**65**	**60**
1	SR 53	North of 18th St.	150	66.1	82	177	382
2	SR 53	18th St. to Dam Rd.	300	61.6	82	177	381
3	SR 53	South of Dam Rd.	150	66.5	88	190	410
4	Old SR 53	North of Future 18th Ave. Exit	50	62.1	15	32	70
5	Old SR 53	Future 18th Ave. Exit to Airport Rd.	100	57.6	15	32	70
6	Old SR 53	Airport Rd to Future S. Market St.	50	62.1	15	32	70
7	Old SR 53	Future S Market St to SR 53	250	47.4	8	17	36
8	Dam Rd	East of SR 53	100	59.5	20	43	93
9	18th Ave	East of SR 53	100	55.5	11	23	50

Source: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix J contains FHWA Model inputs.

Table 4.10-3 data indicate that baseline traffic noise exposure at existing representative residences located nearest to the project vicinity roadways currently range from approximately 32 to 67 dB

DNL, with residences located nearest SR 53 and Old Highway 53 experiencing the greatest noise exposure, as expected.

Baseline Aircraft Noise Environment

There are no public or private use airports in the area and high-altitude aircraft overflight noise is negligible in the project vicinity.

Baseline Ambient Vibration Environment

Except for those locations immediately adjacent to nearest travel lanes of SR 53, which are subject to the vibrations associated with the periodic passage of heavy trucks, no discernible sources of vibration were identified in the project vicinity. Because vibration from traffic dissipates rapidly, at locations removed even 100 feet distant from the SR 53 travel lanes, vibration generated by heavy truck passbys was imperceptible. As a result, the baseline vibration environment at existing sensitive receptors located in the project vicinity is considered to be below the threshold of perception and, therefore, negligible.

4.10.3 Regulatory Context

Federal

There are no federal laws pertaining to noise relevant to the Proposed Project.

State

The following State laws and regulations have been determined to apply to the Proposed Project with respect to the noise environment.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, includes questions that indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA case law also addresses noise impacts. (See *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 883-894.) CEQA standards are discussed more extensively below, under the Thresholds of Significance section.

Governor's Office of Planning and Research

The State of California General Plan Guidelines, published by the Office of Climate and Land Use Innovation, provides guidance for the acceptability of projects within specific CNEL or L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at standards for noise acceptability that reflect the noise control goals of the community, the particular

community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

State Building Code, Title 24, Part 2 of the State of California Code of Regulations

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations, establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local

City of Clearlake 2040 General Plan

The Noise Element of the City of Clearlake General Plan consists of an evaluation of potential noise and vibration related consequences of future development as envisioned with the implementation of the 2040 General Plan. It identifies future noise impacts from planned land uses including the project site as a key shopping center. It indicates that major noise generators, such as larger shopping centers, should be located adjacent to the main traffic corridors of SR 53 and Lakeshore Drive. By grouping commercial uses together, the General Plan states that noise levels can be constrained to specific areas and corridors. Specific noise criteria for future land uses in the General Plan, including the Proposed Project, are incorporated into Noise Element Policies and Programs. For example, Program NO 1.1.1.2 establishes noise standards for new noise-producing uses or sensitive uses affected by existing noise-producing uses.

These standards are shown in Tables 4.10-4 & 5 (Clearlake 2040 General Plan Noise Element Tables 7.2 and 7.3).

Table 4.10-4: General Plan Noise Element Noise Level Performance Standards

Type of Use	Interior Noise Level Standard	Exterior Noise Level, L_{eq}	
		Daytime (7 am to 10 pm)	Nighttime (10 pm to 7 am)
Residential Uses	55 dB L_{max}	55 dB	45 dB

Notes:

Exterior noise level standard to be applied at the property line of the receiving land use or at a designated outdoor activity area (at the discretion of the Planning Director) of the new development. For mixed-use type projects, the exterior noise level standard may be waived (at the discretion of the Planning Director) if the project does not include a designated activity area and mitigation of property line noise is not practical. In this case, the interior standard would still apply.

Interior noise level standards are applied within noise-sensitive areas of residential land uses, with windows and doors in the closed positions. Each of the exterior noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises (e.g., humming sounds, outdoor speaker systems). These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The City can impose noise level standards that are more restrictive than those specified above based upon determination of existing low ambient noise levels. In situations where the existing ambient noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level plus 3 dB. Fixed noise sources which are typically of concern include, but are not limited to the following:

- Air Compressors
- Blowers
- Boilers
- Cooling Towers/Evaporative Condensers
- Conveyor Systems
- Cutting Equipment
- Drill Rigs
- Emergency Generators
- HVAC Systems
- Fans
- Gas or Diesel Motors
- Gas Wells
- Generators
- Grinders
- Heavy Equipment
- Lift Stations
- Outdoor Speakers
- Pile Drivers
- Pump Stations
- Rice Dryers
- Steam Turbines
- Steam Valves
- Transformers
- Welders

The types of uses which may typically produce the noise sources described above include but are not limited to: various industrial and agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

Source: Reproduced from City of Clearlake 2040 General Plan Noise Element-Table 7.2.

Table 4.10-5: Maximum Allowable Noise Exposure for All Noise

Land Use	Outdoor Activity Areas[1] L_{dn}/CNEL, dBA	Interior Spaces	
		L_{dn}/CNEL, dBA	L_{eq}, dBA[2]
Residential (Transportation noise only; see Table 4.10-4 for residential non-transportation noise standards.)	60[3]	45	--
Transient Lodging	70[4]	45	--
Hospitals, Nursing Homes	60[3,5]	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	70	--	--
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	65	--	--

Notes:

[1] Outdoor activity areas for residential developments are considered to be the backyard patios or decks of single-family dwellings, and the patios or common areas where people generally congregate for multi-family development. The exterior noise standards shall not apply to small individual patios of multi-family uses. Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas and outside lunch facilities. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use or at a distance of 100 feet from an existing or proposed building envelope.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB DNL/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB DNL/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[4] In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

[5] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the Planning Department. Commercial and industrial uses have not been listed because such uses are not considered to be sensitive to noise exposure.

Source: Reproduced from City of Clearlake 2040 General Plan Noise Element-Table 7.3.

These standards are based substantially on recommendations contained in the State of California General Plan Guidelines and widely used in many General Plan documents throughout the state. Similar to the State's guidelines, the City's standards indicate that residential uses are "normally acceptable" with exterior noise levels up to 60 dB L_{dn}, and "conditionally acceptable" up to 70 dB L_{dn}. The City's standard of 60 dB L_{dn} for new residential uses with a conditionally allowable standard of 65 dB L_{dn}. For playgrounds and neighborhood parks, the State guidelines indicate that exterior noise levels up to 70 dB L_{dn} are "normally acceptable."[1]

[1] State of California, Governor's Office of Planning and Research (OPR). General Plan Guidelines. 2003.

A number of policies and programs are referenced in the Noise Element pertinent to the project as follows:

Noise Element:

Policy NO 1.1.2	The City should have the flexibility in its ordinance and policies to consider the application of less restrictive exterior noise standards than those prescribed in Tables 7.2 or Table 7.3, in cases where it is impractical or infeasible to reduce exterior noise levels within infill projects to a state of compliance with their standards. In such cases, the rationale for such consideration should be clearly presented and disclosure statements and noise easements should be included as conditions of project approval.
Policy NO 1.1.4	The City should prevent encroachment of noise-sensitive uses.
Policy NO 1.2.2	For City projects that involve capacity enhancing roadways, or the construction of new roadways, an acoustical analysis shall be prepared. If the project would result in a significant noise level increase, or if the project would cause noise levels to exceed the City's noise standards shown in Table 7.2, noise mitigation measures shall be considered to reduce traffic noise levels.

City of Clearlake Municipal Code, Noise Regulations

The City's noise regulations consist of Section 6.44 of the City's Municipal Code, Police Regulations - Disruptive Noise. These regulations are enforced by the City's Police Department and apply to noise created that either annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of others. Specific noises that are declared to be loud, disturbing, and unnecessary noises in violation of these regulations include:

A. Any noise made by the motor of any automobile, truck, tractor, motorcycle, not reasonably required in the operation thereof under the circumstances and shall include but not be limited to backfiring and motor racing.
B. The sounding of any horn or signaling device on any automobile, motorcycle, trolley coach or other vehicle on any street or public place of the city, except as a danger warning; the creation by means of any such signaling device of any unreasonably loud or harsh sound; and the sounding of any such device for an unnecessary and unreasonable period of time. The use of any signaling device except one operated by hand or electricity, the use of any horn, whistle or any other device operated by engine exhaust; and the use of any such signaling device when traffic is for any reason held up.
C. Yelling, shouting, hooting, whistling, signing or blowing of horns on the public streets, particularly between the hours of 12:00 p.m. and 7:00 a.m. or any time or place as to annoy or disturb the quiet, comfort, or repose of persons in any office, or in any dwelling, hotel, apartment, or other type of residence, or of any persons in the vicinity.

D. The erection (including excavating), demolition, alteration or repair of any building other than between the hours of 7:00 a.m. and 6:00 p.m., except in case of urgent necessity in the interest of public health and safety, and then only with a permit from the building inspector, which permit may be granted for a period not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues. If the building inspector should determine that the public health and safety will not be impaired by the erection, demolition, alteration or repair of any building or the excavation of streets and highways within the hours of 6:00 p.m. and 7:00 a.m. and if he shall further determine that loss of inconvenience would result to any part in interest, he may grant permission for such work to be done within the hours of 6:00 p.m. and 7:00 a.m., upon application being made at the time the permit for the work is awarded or during the progress of work.
E. The operation between the hours of 10:00 p.m. and 7:00 a.m. of any pile-driver, stream-shovel, pneumatic hammer, derrick, stream or electric hoist or other appliance, the use of which is attended by loud or unusual noise.
F. The use of or operation between the hours of 10:00 p.m. and 7:00 a.m. of any power saw, power planer, or other powered tool or appliance or saw or hammer, or other tool, so as to disturb the quiet, comfort, or repose of persons in any dwelling, hotel, apartment, or other type of residence, or of any person in the vicinity.
G. The operating of any noise-creating blower or power fan or any internal combustion engine the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device sufficient to deaden such noise.
H. The blowing of any locomotive steam whistle or steam whistle attached to any stationary boiler except to give notice of the time to begin or stop work as a warning of fire or danger, or upon request of proper city authorities.
I. The discharge into the open air of the exhaust of any steam engine, stationary internal combustion engine, motor-boat, or motor vehicle except through a muffler or other device which will effectively prevent a loud or explosive noises therefrom.
J. The creation of a loud and excessive noise in connection with loading or unloading any vehicle or the opening and destruction of bales, boxes, crates, and containers.
K. The shouting and crying of peddlers, hawkers, and vendors which disturbs the peace and quiet of persons in the neighborhood.
L. The use of any drum or other instrument or device for the purpose of attracting attention by creation of noise to any performance show or sale.
M. The transportation of rails, pillars, or columns of iron, steel or other material, over and along streets and other public places upon carts, drays, cars, trucks in any manner so as to cause loud noises or to disturb the peace and quest of persons in the vicinity there.
N. The keeping of any animal, fowl or bird which by causing frequent or long continued noise shall disturb the comfort or repose of persons in the vicinity.

These regulations include some exceptions, such as noise from celebrations and public functions on public holidays.

4.10.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific impacts related to noise. In addition, a discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Criteria for significance of noise impacts are drawn from Appendix G of the CEQA Guidelines, which states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receptors on a permanent or temporary basis. Consistent with Appendix G, the proposed Project may have a significant impact on noise if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive ground-borne vibration or ground-borne noise levels; and/or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 540,000 square feet of commercial building area, using the assumptions of the General Plan EIR. Figure 4.10-2 shows the Project Preferred Site Plan. Full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project's particular impacts as compared to General Plan build-out of the site.

4.10-1 Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (*Less than Significant with Mitigation*)

Noise Impacts from Project-Related Increases in Baseline (Existing) Traffic Noise levels at Existing Off-Site Sensitive Receptors:

With development of the Project, traffic volumes on the local roadway network will increase. Increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing sensitive receptor uses located along those roadways. The FHWA Model was used with traffic input data from the transportation impact analysis to predict Project traffic noise-level increases relative to existing conditions. Traffic data in the form of peak hour traffic volumes were obtained from the transportation impact study for the Project. Other inputs were obtained from published Caltrans traffic counts, ambient survey data, and direct observations.

The existing and existing-plus-Project traffic noise levels at the distances representing the nearest sensitive land uses to the project area roadways are summarized in Table 4.10-6. Table 4.10-6 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains sensitive uses, and whether or not significant noise impacts are identified for each segment.

As indicated in Table 4.10-6, traffic noise level increases at existing residences located along the project-area roadways are predicted to be below the threshold of significance. As a result, noise impacts related to increases in off-site traffic noise exposure resulting from the Project would be less than significant.

Noise Impacts of On-Site Project-Related Operational Noise Sources at existing Off-Site Sensitive Receptors

Land use designations proposed within the project area include hotel, housing, commercial/retail, wellness, mixed-use, and open space. Development of the project area with these types of uses will introduce new noise sources within the project area which could affect existing sensitive uses located beyond the project boundaries.

Specific noise sources which could be introduced into the project area could include, but would not be limited to, the following:

- Parking lot movements.
- Commercial deliveries.
- Mechanical equipment (heating, ventilation and air conditioning equipment).
- Drive-through restaurant operations.
- Car wash
- Fueling station
- Recreation activities

Although specifics pertaining to the exact uses and noise sources which may ultimately be developed within the project site are not known at this time, an analysis of the typical types of noise-generation related to the sources identified above is provided below.

Parking Lot Movements

As a means of determining potential noise exposure due to parking lot activities, Bollard Acoustical Consultants, Inc. (BAC) utilized specific parking lot noise level measurements conducted by BAC. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. The results of those measurements revealed that individual parking lot movements generated mean noise levels of 65 dB Sound Exposure Level (SEL) at a reference distance of 50 feet.

Table 4.10-6: Predicted Traffic Noise Levels at Existing Sensitive Receptors – Existing vs. Existing-Plus-Project Conditions

#	Roadway	Segment	Predicted DNL, dBA			Signifi-cance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?	Significant Impact Iden-tified?
			Existing	Existing+ Project	Increase				
1	SR 53	North of 18th St.	66.1	66.8	0.7	3	No	Yes	No
2	SR 53	18th St. to Dam Rd.	61.6	62.0	0.4	3	No	Yes	No
3	SR 53	South of Dam Rd.	66.5	67.2	0.7	3	No	No	No
4	Old SR 53	North of Future 18th Ave. Exit	62.1	63.4	1.3	3	No	No	No
5	Old SR 53	Future 18th Ave. Exit to Airport Rd.	57.6	58.5	0.9	5	No	Yes	No
6	Old SR 53	Airport Rd. to Future S. Market St.	62.1	63.6	1.5	3	No	Yes	No
7	Old SR 53	Future S. Market St. to SR 53	47.4	50.5	3.1	5	No	Yes	No
8	Dam Rd.	East of SR 53	59.5	59.7	0.2	5	No	No	No
9	18th Ave.	East of SR 53	55.5	56.1	0.6	5	No	Yes	No

Notes:

1. Significance thresholds are 5 dBA where baseline traffic noise exposure is less than 60 dB DNL and 3 dBA where baseline traffic noise exposure is greater than 60 dB DNL

Source: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix J contains FHWA Model inputs.

Given the project layout, the distance between the effective noise centers of parking areas proposed south of the extension of 18th Avenue and the nearest residences would range from approximately 150 to over 500 feet. According to information provided by the project transportation consultant (W-Trans), the Project would generate approximately 500 peak hour vehicle trips entering the site between all of the proposed land uses. Retail and restaurant uses would be responsible for the majority of project trip generation.

For a conservative assessment of parking area noise generation, it was assumed that individual parking areas located nearest to existing residences could generate up to approximately 150 parking lot movements during peak hour conditions. Parking area noise exposure was determined using the following equation:

$$Peak\ Hour\ L_{eq} = 65+10*log\ (N) – 35.6$$

Where 65 is the SEL for a single automobile parking operation at a reference distance of 50 feet, N is the number of parking area operations in a peak hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour.

Using parking lot noise measurement data and the equation provided above, noise exposure from an individual parking area having 150 peak hour movements computes to approximately 51 dB L_{50} and 65 dB L_{max} at a distance of 50 feet from the effective noise center of the parking areas located south of the future 18th Avenue extension. Assuming a sound attenuation rate of 4.5 dB per doubling of distance between a moving point source and stationary receiver locations, the predicted parking lot noise exposure at the nearest residences computes to approximately 44 dBA L_{eq}. More distant parking areas would generate even lower levels at the nearest residences.

Table 4.10-4 indicates that the City's daytime and nighttime noise level standards applicable at existing residential uses are 55 and 45 dBA L_{eq}, respectively. Peak hour parking lot activity would occur during daytime hours. In addition, where ambient conditions exceed these standards, new noise sources are permitted to generate sound levels effectively equal to existing baseline conditions. The predicted worst-case parking lot movement noise level of approximately 44 dBA at the nearest residences excludes consideration of shielding that may be present between parking areas and existing residences. The predicted levels would nonetheless be satisfactory relative to the Clearlake General Plan noise standards even without consideration of the elevated ambient conditions identified around the perimeter of the site.

The site plan indicates that there would likely be parking areas associated with future hotel and/or residential development north of the 18th Avenue extension into the project site. The center of indicated parking areas north of 18th Avenue could be as close as 100 feet from existing residences. However, the parking areas are considerably smaller than parking areas proposed for the commercial/retail uses located south of 18th Avenue. According to trip generation estimates provided by the project transportation consultant the hotel and residential components of the project would likely generate approximately 40 to 70 peak-

hour trips between two to three apparent parking areas. Assuming 50 parking lot movements at a distance of 100 feet, the hourly average noise level computes to approximately 46 dBA L_{eq} during peak hour trip generation conditions. This level would be satisfactory relative to the City's 55 dBA L_{eq} DNL standard.

This analysis concludes that parking lot noise levels are predicted to be satisfactory to City of Clearlake General Plan noise standards and would not result in substantial increases in ambient noise levels at existing sensitive receptors in the project vicinity. As a result, parking lot-related noise impacts of the project are identified as being less than significant.

Commercial Truck Deliveries

Truck deliveries are a common component of hotel, commercial and retail activities. It is expected that portions of the businesses proposed within the project area will receive deliveries of product from heavy and/or medium-duty trucks. It is further expected that those uses will typically generate lighter semi-trailer truck delivery activity once initial store stocking has been completed. BAC file data for commercial uses such as those envisioned within the project area indicate that regular weekly heavy truck deliveries of product to the businesses could approach two to three trucks per day for larger stores and perhaps two to three deliveries per week at smaller stores. Depending on the design of the use, truck unloading could occur at loading dock areas or in front of the retail, hotel, or commercial use. In addition to occasional heavy truck deliveries, medium-duty vendor trucks and side-step vans could also deliver products to other commercial businesses, which typically occur at the storefronts.

For the purposes of this analysis, it was assumed that one heavy truck and three medium duty truck deliveries could occur within commercial loading areas during a busy hour. Truck deliveries are expected to be relatively brief in duration. BAC file data indicate that heavy truck deliveries produce an average SEL of approximately 85 dB at a distance of 100 feet, with medium duty trucks (including sidestep vans), producing a SEL of approximately 76 dB. Based on these levels, and one semi-trailer delivery and three medium duty truck deliveries during any given hour, the resulting noise levels are calculated to be 46 dB L_{eq} and 74 dB L_{max} at a distance of 100 feet from the unloading area.

The truck unloading areas of the larger commercial areas identified on the project site plans indicate setbacks between truck loading/unloading areas and nearby residences could range from approximately 150 feet to over 500 feet. When projected to distances of 150 to 500 feet, delivery truck activity noise exposure is calculated to be approximately 43 dB L_{eq} and 71 dB L_{max}. The predicted noise levels exclude consideration of shielding that would be provided by intervening topography or structures. The predicted levels would nonetheless be satisfactory relative to the Clearlake General Plan noise standards even without consideration of the elevated ambient conditions identified around the perimeter of the site. As a result, this impact is identified as being less than significant.

Commercial Mechanical / HVAC Equipment Noise at Existing Sensitive Uses

The HVAC systems within future buildings in the project development area will undoubtedly vary. A common approach to providing building heating and cooling is through the use of packaged rooftop air conditioning systems. Such HVAC units, which typically stand about four to five feet tall, would normally be shielded from view of nearby sensitive uses by the building parapets. Rooftop HVAC units typically generate a noise level of approximately 45 dB L_{eq} at a reference distance of 100 feet from the building facade, including shielding by the building parapet (estimated to provide approximately 5-10 dB of noise level reduction).

The distance between the nearest identified existing noise-sensitive uses to the proposed development areas of the project site where mechanical equipment may be located would similarly vary. However provided mechanical equipment is either located 100 feet from an existing residence, screened from view of existing residences by building parapets, or housed within dedicated equipment rooms which would contain the noise, mechanical equipment noise is not anticipated to exceed City of Clearlake noise standards or result in a substantial increase in ambient noise levels at existing sensitive receptors located near the project site. As a result, this impact is identified as being less than significant.

Restaurant Drive-Through Operations Noise at Existing Sensitive Uses

As mentioned previously, specific uses within the project area have not yet been determined. However, it is likely that commercial components could contain drive-through restaurant businesses.

To quantify the noise emissions of a restaurant drive-through speaker and vehicle passages, BAC utilized noise measurement data collected for drive-through operations in the greater Sacramento area in recent years. Drive-through menu speaker boards have measured noise levels of approximately 63 dB L_{eq} and 67 dB L_{max} at a distance of 10 feet from the speaker board. Vehicle pass-by in drive-throughs have measured levels of approximately 60 dB L_{eq} and 70 dB L_{max} at a distance of 5 feet from the drive-through lane.

The most likely locations for drive-through restaurant lanes within the project area would be in the extreme southern portion of the site near the intersection of Old Highway 53 and SR 53, and within areas identified for commercial/retail operations near the SR 53 corridor. The nearest identified existing noise-sensitive uses appear to be at least 150 feet from locations where restaurant drive-through lanes could be proposed. At that 150-foot location, combined drive-through operations noise level exposure is calculated to be approximately 39 dB L_{eq} and 45 dB L_{max}. The predicted noise levels exclude consideration of shielding that could be provided by intervening structures or topography. The predicted levels would nonetheless be satisfactory relative to the Clearlake General Plan noise standards even without consideration of the elevated ambient conditions identified around the perimeter of the site. As a result, this impact is identified as being less than significant.

Car Wash Operations Noise at Existing Sensitive Uses

As mentioned previously, specific uses within the project area have not yet been determined. However, it is possible that the fueling station proposed in the far southern portion of the site near the intersection of Old Highway 53 and SR 53 could include a car wash.

Noise levels generated by car washes are primarily due to the drying portion of the operation. To quantify the noise levels from car wash drying assemblies, BAC utilized file data for equipment commonly used in gas station/car wash tunnel combination uses. Specifically, noise level data for a Ryko 3-Fan Slimline Drying System was used in this analysis. In addition, many gas station/ car wash combination uses also have vehicle vacuum systems. To quantify the noise generation from vacuum systems, BAC utilized file data for equipment commonly used in gas station/car wash tunnel combination uses. Specifically, noise level data for a JE Adams Super Vac (2-motor) Model 9200 series vacuum system was used in this analysis.

The nearest identified existing noise-sensitive uses to a car wash constructed within the southern portion of the site would have a separation of approximately 250 feet. At that distance, car wash drying assembly noise level exposure is calculated to be approximately 56 dB L_{eq}. In addition, vacuum system noise level exposure is calculated to be approximately 52 dB L_{eq} at a distance of 250 feet. The predicted noise level excludes consideration of shielding that may be provided by the orientation of the car wash tunnel, intervening topography or structures. Without consideration of such shielding, it is possible that combined car wash dryer and vacuum noise levels could approach the City's 55 dBA daytime noise level standard at the nearest residences to the car wash. However, ambient noise level data collected at site LT-1 registered daytime average noise levels of 66-67 dBA L_{eq}. In light of the elevated ambient conditions at this location, the City's noise level limit would be increased from the daytime standard of 55 dBA to 66-67 dBA, and the car wash noise levels would be well below that adjusted noise standard. As a result, this impact is identified as being less than significant.

Fueling Station Operations Noise at Existing Sensitive Uses

Although specific uses within the project area have, for the most part, not yet been determined, the project does propose a fueling station at the southern portion of the site. Noise generated at fueling stations consists of slow-moving parking lot activity as drivers queue for the pumps, mini-market activity, and the previously discussed car wash and heavy truck deliveries. The dispensing of fuel from the pumps is essentially silent relative to background noise levels at fueling stations. Given the location of the proposed fueling station to SR 53, noise generated at the fueling station is predicted to be well below existing traffic noise levels at the nearest residences to the project site.

In light of the elevated ambient conditions at this location, the City's noise level limit would be increased from the daytime standard of 55 dBA to 66-67 dBA, and the fueling stations noise levels would be well below that adjusted noise standard. As a result, this impact is identified as being less than significant.

Recreation Activity Noise Generation at Existing Residences

The project site plan does not identify large playing fields such as those required for organized soccer games but open space areas are identified within the central and northern portions of the project site. Given the size of the open space areas, it is likely that recreational activities occurring within those locations would likely be more of the passive nature than active (e.g., bocce ball vs. basketball courts). Nonetheless, if active recreation areas are proposed within the project area at some future date, even if small tot-lot play areas, noise generated by such activities should be considered at the planning phase.

Noise levels of outdoor play areas containing approximately 50 children were measured to be 55 dB L_{eq} and 75 dB L_{max} at a distance of 50 feet from the focal point of the play area. Because sound generated by children's play activities tends to consist primarily of speech (i.e., shouting children), noise associated with school playground and playing field activities would be subject to a 5 dBA more restrictive standard than broadband noise sources.

Specifically, the General Plan daytime noise level standard would decrease by 5 dBA to 50 dB L_{eq} and 70 dB L_{max}. As a result, proposed active recreation areas located within 100 feet of an existing residential use could potentially exceed the City's 50 dBA L_{eq} daytime standard. Depending on the location of such future active recreation areas, should such areas be proposed, it is likely that increased ambient conditions would result in a higher noise level standard being applied, but such proposals should be reviewed to ensure compliance with the City's General Plan noise standards.

Given the elevated ambient conditions at the project area, it is unlikely that future active recreation areas would generate noise levels exceeding the City's noise standards, but it is not certain.

Noise Impacts Associated with Project On-Site Construction Activities

During project construction, heavy equipment would be used for demolition, grading, excavation, paving, and building construction, which would increase ambient noise levels when in the immediate vicinity. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project work area would also vary depending on the proximity of equipment activities to that point.

Table 4.10-7 includes the range of maximum noise levels for equipment commonly used in general construction projects at full-power operation at a distance of 50 feet. Not all of these construction activities would be required of this project. The Table 4.10-7 data also include predicted maximum equipment noise levels at a probable worst-case distance of 25 feet from an existing residence adjacent to the northern plan area boundary.

Table 4.10-7: Predicted Maximum Noise Levels Associated with Construction Activities

Equipment Description	Maximum Noise Level at 50 Feet (dBA)	Predicted Maximum Noise Level at 25 feet (dBA)
Air compressor	80	86
Backhoe	80	86
Compactor	82	88
Concrete mixer	85	91
Concrete pump	82	88
Concrete vibrator	76	82
Crane, mobile	83	89
Dozer	85	91
Generator	82	91
Grader	85	88
Impact wrench	85	91
Loader	80	91
Paver	85	86
Pneumatic tool	85	91
Pump	77	91
Saw	76	83
Scraper	85	89
Shovel	82	91
Spike driver	77	88
Tie cutter	84	83
Tie handler	80	90
Tie inserter	85	86
Truck	84	91

Source: Federal Transit Administration Noise and Vibration Impact Assessment Manual, Table 7-1 (2018)

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilitities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the noise impacts of development on the site were previously addressed in a broad level in the General Plan EIR. The Proposed Project, which includes developing the site in compliance with the Development Manual will ensure that the Proposed Project is consistent with the General Plan.

Conclusion

Based on the equipment noise levels in Table 4.10-7, worst-case on-site project construction equipment maximum noise levels at 25 feet are expected to range from approximately 82 to 91 dB. Thus, it is possible that a portion of the construction equipment used within the Plan area could result in substantial short-term increases over ambient maximum noise levels at the nearby existing sensitive uses. As a result, noise impacts associated with project on-site construction activities are identified as being ***less than significant with mitigation***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce noise impacts.

Mitigation Measure 4.10-1. Reduce Noise Impacts to Existing Residences from Proposed Recreational Facilities. Prior to grading and building permit issuance for any proposed active recreation facilities on the project, the proposals shall be reviewed by a qualified acoustical consultant to ensure that noise generated by such activities would not adversely affect existing residences in the vicinity. All projects will be required to meet the City's noise standards for sensitive uses and shall implement noise attenuation measures as needed to remain below the City's thresholds.

Mitigation Measure 4.10-2. Reduce Construction Noise. Prior to issuance of grading and building permits, the following measures shall be incorporated into construction plans and implemented during on-site construction operations:

- Noise-generating construction activities within the Plan area shall occur pursuant to the hours and days outlined in Clearlake Municipal Code.
- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electric-powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses.
- Project area and site access road speed limits shall be established and enforced during the construction period.
- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.
- In the event that unusual circumstances or emergencies prevent certain project construction activities from complying with the Municipal Code Section 6.68.090(e), a noise control plan shall be developed to ensure that sufficient mitigation is implemented during project construction to ensure adverse noise impacts are avoided.

4.10-2 Generate excessive ground-borne vibration or ground-borne noise levels (*Less than Significant)*

During project construction, heavy equipment would be used for demolition, grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of the construction. The nearest identified existing structures to the northern development area may be located as close as 25 feet from where construction activities would occur within the Plan area.

Table 4.10-8 includes the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet. The data also include predicted equipment vibration levels at a distance of 100 feet from proposed construction activities.

Table 4.10-8: Predicted Construction Vibration Levels

Equipment	Maximum Vibration Level at 25 feet, VdB (RMS)	Predicted Maximum Vibration Level at 100 feet, VdB (RMS)
Vibratory Roller	94	76
Hoe Ram	87	69
Large bulldozer	87	69
Loaded trucks	86	68
Jackhammer	79	61
Small bulldozer	58	40

Source: 2018 FTA Transit Noise and Vibration Impact Assessment Manual and BAC calculations

As shown in Table 4.10-8, vibration levels generated from on-site construction activities are predicted to be below thresholds for damage to engineered residential structures (98 VdB) at a distance of 25 feet from those activities. In addition, construction-related vibration levels are generally predicted to be below levels considered to be disruptive (75 VdB) at a distance of 100 feet from the construction activity.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilitities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the noise and vibration impacts of development on the site were previously addressed in a broad level in the General Plan EIR. The Proposed Project, which includes developing the site in compliance with the Development Manual will ensure that the Proposed Project is consistent with the General Plan.

Conclusion

The project proposes a mixed-use community containing residential, commercial, retail, mixed-use, and open space uses. These uses do not typically have equipment that generates appreciable off-site vibration. Because vibration levels due to both project construction and

activities related to proposed developments within the plan area are expected to be satisfactory relative to the applicable vibration criteria for damage to structures and annoyance, this impact is considered to be ***less than significant***.

Mitigation Measure(s)

None required.

4.10.3 Be located within the vicinity of a private airstrip or an airport land use plan, within two miles of a public airport or public use airport, or expose people residing or working in the Project area to excessive noise levels (No Impact)

As previously described, there are no public or private use airports in the area and high-altitude aircraft overflight noise is negligible in the project vicinity.

General Plan Evaluation

Not applicable

Conclusion

There would therefore be ***no impact*** related to noise from aircraft or airport operations.

Mitigation Measure(s)

None required.

4.10.4 Combined with cumulative development expose existing noise-sensitive land uses to increased noise (*Less than Cumulatively Considerable*)

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways and on-site activities resulting from the operation of the proposed Project. Table 4.10-9 shows cumulative traffic noise levels with and without the Proposed Project. As indicated in Table 4.10-9, the project-related increase in future/cumulative noise conditions is not considerable. As compared to the General Plan scenario of a 540,000-square-foot regional shopping center, the project would be expected to result in reduced noise levels since some of the uses are residential (less noise intensive than commercial) and traffic levels are lower (see Chapter 4.13, Transportation and Circulation). However, as described under Impact 4.10.5, the Project would introduce new residential development which could be impacted by noise impacts from traffic on SR 53 and Old Highway 53.

Construction activities are temporary in nature and would occur during normal daytime working hours. Unless off-site construction-related activities are occurring in relatively close proximity to on-site construction activities, cumulative increases in ambient noise levels during project construction would be fairly small and is expected to be below levels

which would trigger significant noise impacts. The Proposed Project, when considered alongside present land uses, existing sensitive receptors, and probable future projects, would not be expected to cause any significant cumulative construction noise impacts.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the noise impacts of development on the site were previously addressed in a broad level in the General Plan EIR. The Proposed Project, which includes developing the site in compliance with the Development Manual will ensure that the Proposed Project is consistent with the General Plan.

Conclusion

Cumulative traffic noise levels would not be expected to cause significant traffic noise impacts and development of this site as a commercial shopping center was previously addressed in the General Plan EIR. As a result, this impact is considered ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

Table 4.10-9: Predicted Traffic Noise Levels at Existing Sensitive Receptors – Cumulative vs. Cumulative-Plus-Project Conditions

#	Roadway	Segment	Predicted DNL, dBA			Significance Threshold[1]	Threshold Exceeded?	Sensitive Receptors Present?	Significant Impact Identified?
			Cumulative No-Project	Cumulative + Project	Increase				
1	SR 53	North of 18th St.	67.3	67.5	0.2	3	No	Yes	No
2	SR 53	18th St. to Dam Rd.	62.7	62.8	0.2	3	No	Yes	No
3	SR 53	South of Dam Rd.	67.4	67.8	0.4	3	No	No	No
4	Old SR 53	North of Future 18th Ave. Exit	62.5	63.7	1.2	3	No	No	No
5	Old SR 53	Future 18th Ave. Exit to Airport Rd.	58.0	58.8	0.8	5	No	Yes	No
6	Old SR 53	Airport Rd. to Future S. Market St.	62.5	63.8	1.3	3	No	Yes	No
7	Old SR 53	Future S. Market St. to SR 53	48.9	50.7	1.8	5	No	Yes	No
8	Dam Rd.	East of SR 53	61.9	61.9	0.0	3	No	No	No
9	18th Ave.	East of SR 53	54.6	56.5	1.9	5	No	Yes	No

Notes:

1. Significance thresholds are 5 dBA where baseline traffic noise exposure is less than 60 dB DNL and 3 dBA where baseline traffic noise exposure is greater than 60 dB DNL

Source: FHWA-RD-77-108 with inputs from project traffic impact study. Appendix J contains FHWA Model inputs.

Cumulative Impacts and Mitigation Measures

4.10.5 Combined with cumulative development expose noise-sensitive uses proposed within the project site to noise levels exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies (*Less than Cumulatively Considerable with Mitigation*)

The California Supreme Court issued an opinion in California Building Industry Association v. Bay Area Air Quality Management District (2015) holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing or future conditions on a project's future users or residents. Nevertheless, The City of Clearlake has General Plan policies that address existing/future conditions affecting future uses developed within the project area. As a result, noise and vibration impacts upon the Project are evaluated for General Plan consistency in this section.

The Project Preferred Site Plan in Figure 4.10-2 indicates the locations within the project area where housing and mixed-use development could occur. As indicated in Figure 4.10-2, residential uses are proposed within 180 feet of the centerline of SR 53 and within 75 feet of the centerline of Old Highway 53. Using the FHWA Model, future traffic noise exposures at these locations were computed to be 66 and 61, dB DNL, respectively. These levels do not include any adjustments for shielding traffic noise by intervening structures or topography which may be present between the future residential uses and existing roadways.

The City's General Plan exterior and interior noise level standards for residential uses are 60 dB DNL and 45 dB DNL, respectively, at outdoor activity areas and habitable interior areas of the new residences. Where it is not possible to reduce noise in outdoor activity areas to 60 dB DNL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB DNL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Outdoor activity areas for residential developments are considered to be the backyard patios or decks of single-family dwellings, and the patios or common areas where people generally congregate for multi-family development. The exterior noise standards are not applicable to small individual patios of multi-family uses. Because specific plans for future residential development within the project area have yet to be developed, the specific locations of future outdoor activity areas of such residential uses are not known at this time. However, it is feasible that future traffic noise exposure could exceed the City's 60 dB DNL exterior noise standard at outdoor activity areas of future residential uses developed within the project area.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are shown to be consistent with the planned land uses under the General Plan and the noise and vibration impacts of development on the site were previously addressed in a broad level in the General Plan EIR. The Proposed Project, which includes developing the site in compliance with the Development Manual will ensure that the Proposed Project is consistent with the General Plan.

Conclusion

Standard residential development construction practices in accordance with building code requirements provide an exterior-to-interior traffic noise attenuation of at least 25 dBA DNL. Therefore, because future exterior noise exposure at the building facades of residential uses proposed within the project area are predicted to be below 70 dB DNL, standard construction would be adequate to ensure compliance with the City's 45 dB DNL interior noise standard (provided air conditioning is provided to allow occupants to close windows and doors as desired for additional acoustic isolation). As a result, noise impacts associated with future traffic noise exposure within residential uses developed within the project area are identified as being ***less than significant with mitigation***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce noise-related impacts to future residences.

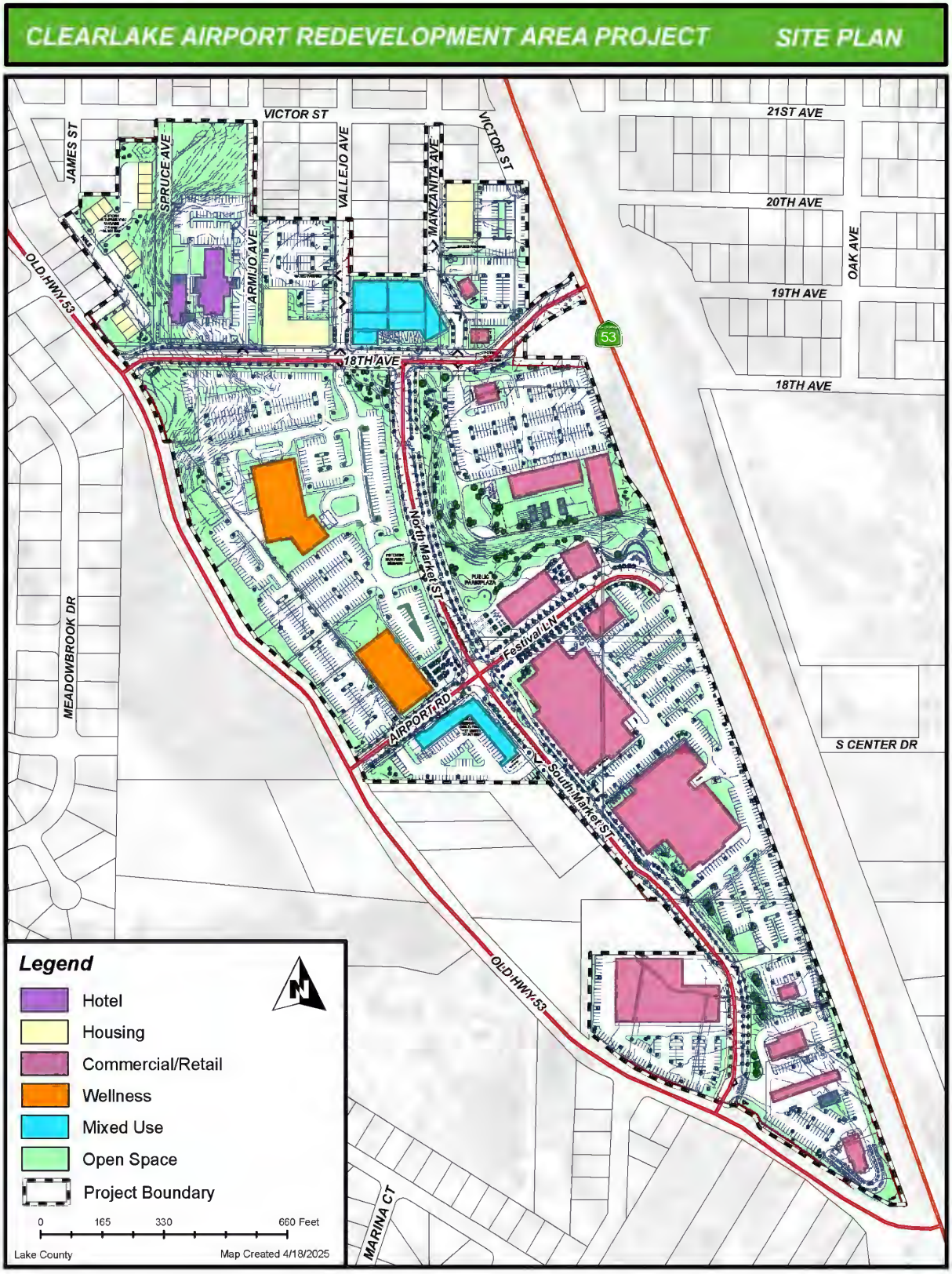
Mitigation Measure 4.10-3. Reduce Noise Impacts to Proposed Residences Near SR 53 and Old Highway 53. Prior to building permit issuance for residential uses within 476 feet of the SR 53 centerline or within 88 feet of the Old Highway 53 centerline shall be reviewed by a qualified acoustics consultant to ensure that traffic noise mitigation measures are included in the project design to achieve 60 dB DNL in outdoor activity areas of the residential uses. Such measures which may be utilized to achieve compliance with the City's 60 dB DNL exterior noise standard include, but would not be limited to, the following:

- Shielding of outdoor activity areas of future residential uses by the residential structures, topography, or sound barriers.
- Relocating outdoor activity areas beyond the distances identified above (i.e. the distances to the 60 dB DNL future traffic noise contours for SR 53 and Old Highway 53.

Figure 4.10-1: Project Area & Noise Survey Locations



Figure 4.10-2: Site Plan



4.11 POPULATION AND HOUSING

4.11.1 Introduction

The purpose of this EIR chapter is to analyze and disclose the anticipated growth in population that would result from project implementation and analyze the project's consistency with relevant planning documents and policies related to population, housing, and employment.

Much of the information presented in this Chapter is from the City's 2040 General Plan, General Plan Environmental Impact Report, General Plan Background Report, the 2019-27 General Plan Housing Element and the City of Clearlake Municipal Code. These sources are cited in the Reference Chapter and other sources of information cited separately as footnoted.

During the NOP comment period for the EIR, no comments regarding this topic were received.

4.11.2 Existing Environmental Setting

Population Trends

Table 4.11-1 summarizes the growth of the City of Clearlake's population from the years 1990 to 2025, based on information from the California Department of Finance (DOF). As shown in Table 4.11-1, the City's population has increased from 11,804 in 1990 to 16,870 in 2020 with ten-year growth rates of between 10.6% and 16%. However, some declines in population have been estimated more recently with a decline in population of 337 or about 2 percent between 2020 and 2025. Population rates have slowed, not only in Clearlake, but within the entire Lake County region over the last ten years. Several local factors are likely responsible for the slow rates of growth. Among the most significant, however, are four successive years of catastrophic wildfires between 2015 and 2018.

Table 4.11-1: City of Clearlake Population Change (1990-2025)

Year	Population	Change	Percentage Change
1990	11,804	--	--
2000	13,147	1,343	11.4%
2010	15,250	2,103	16.0%
2020	16,870	1,620	10.6%
2025	16,533	-337	-2.0%

Housing Stock

Table 4.11-2 summarizes the growth of the City's housing stock from the years 1990 to 2025, based on information from the DOF. The number of housing units has increased by about 552 units

or by 7.5 percent between 1990 and 2025. As with population trends in the Lake County region, housing stock has shown a decline over the last ten years with a slight uptick more recently in the City. As noted in the population section, catastrophic wildfires between 2015 and 2018, such as the Sulphur Fire (2017) in Clearlake, resulted in significant declines in housing stock.

Table 4.11-2: City of Clearlake Housing Unit Change (1990-2025)

Year	Housing Units	Change	Percentage Change
1990	7,315	--	--
2000	7,607	292	4.0%
2010	8,035	428	5.6%
2020	7,659	-376	-4.7%
2025	7,867	-205	2.6%

Persons per Dwelling Unit

The average number of persons residing in a dwelling unit in Clearlake is 2.54[1].

Employment

According to the U.S. Census Bureau 2019-2023 American Community Survey 5-Year Estimates, there were 6,143 jobs in 2023 in the City of Clearlake for 6,318 occupied housing units.[2] This equates to a jobs-to-housing ratio of 0.97 jobs to each housing unit. This indicates an imbalance of jobs to housing relationship and a need for more jobs in the community.

Future Housing Needs

State law (California Government Code Section 65580 et seq.) requires the California Department of Housing and Community Development (HCD) to project statewide housing needs and allocate the anticipated need to each region in the state. HCD establishes regional shares of housing needs to various local governments. These allocations are referred to as Regional Housing Needs Allocation Plans (RHNPP). RHNPPs are determined through review of economic and demographic data taken from the DOF. RHNPPS project the number of total housing units needed in each affordability range (very-low, low, moderate, and above-moderate) for each region.

The Lake County/City Area Planning Council (APC) further revised the regional housing numbers developed by HCD and issued the Regional Housing Needs Plan (RHNP) for Lake County, City of Lakeport, and City of Clearlake. Allocations were approved by HCD, Lake County, and the

[1] California Department of Finance, 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State. May, 1, 2025. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/ Accessed May 1, 2025.
[2] U.S. Census Bureau, ACS Release, 2019-23. December 12, 2024. https://www.census.gov/data/developers/datasets/acs-5year.html Accessed May 1, 2025.

Cities of Lakeport and Clearlake through this process. The City of Clearlake received an allocation of 434 units for the 2019-2027 RHNA period.[3]

Projections

A range of growth scenarios were analyzed for Lake County as part of the 2010 Lake County Regional Blueprint projecting population growth of between 91,000 and 101,000 by 2030[4]. The growth rates in the City's 2040 General Plan project an additional 2,314 housing units and 682,944 square feet of commercial building area will be built by 2040. The General Plan also indicates that the estimated population in the City would be 17,234 in 2025, but the 2024 DOF population estimate for Clearlake was 16,553. As previously noted, catastrophic wildfires between 2015 and 2018, such as the Sulphur Fire (2017) in Clearlake, resulted in significant declines in housing stock.

4.11.3 Regulatory Context

Federal

There are no federal laws pertaining to population and housing of the area.

State

Senate Bill (SB) 375

Adopted in October 2008, SB 375 requires each of California's Metropolitan Planning Organizations (MPOs) to develop an integrated transportation, land use, and housing plan known as a Sustainable Communities Strategy (SCS). This SCS must demonstrate how the region will reduce greenhouse gas emissions through long-range planning. It also requires the Regional Housing Needs Allocation, which anticipates housing need for local jurisdictions, to conform to the SCS, which is an opportunity to advocate for increased access to and distribution of affordable housing across the region.

Regional Housing Needs Allocation

According to California Government Code Section 65584, the City is mandated to update their General Plan Housing Element periodically to demonstrate how the City can meet its Regional Housing Needs Allocation (see Regional Housing Needs Plan discussion above). The Regional Housing Needs Allocation (RHNA) indicated that Lake County is responsible for demonstrating the opportunity to develop an additional 1,339 units (during the 6th Housing Cycle 2019-2027) of which Clearlake is responsible for 434 units by 2027 (see 4.11-3). Although the City is not directly responsible for the construction of these housing units, the City is responsible for creating a regulatory environment in which these housing units can be constructed.

[3] Lake County, 2018. 6th Cycle Regional Housing Needs Allocation. Final. August 13, 2018. https://www.lake-apc.org/wp-content/uploads/2021/10/2018-Regional-Housing-Needs-Plan.pdf. Accessed June 27, 2025.
[4] MIG Consultants, Regional Blueprint Plan, Lake County, October 2010. Available at: https://www.lake-apc.org/wp-content/uploads/2018/06/Final-Blueprint-2030.pdf. Accessed June 27, 2025.

Table 4.11-3: City of Clearlake Housing Needs Allocation (2019-2027)

Income Category	Number of Units	Percentage (%)
*Extremely Low-	48	11.05%
Very Low-	49	11.20%
Low-	65	13.45%
Moderate-	72	14.90%
Above Moderate-	200	41.47%
Totals	**434**	**92.07%**

Note:
It is assumed that approximately 50 percent of the Very Low-Income category is allocated to Extremely Low-Income category.

Sources:
California Department of Housing and Community Development Department, State Income Limits for Lake County, 2024 for the 6th Cycle Regional Housing Needs Allocation, Final Methodology, City of Clearlake Housing Element, Adopted October 10, 2019.

RHNP Allocation 2018.

Local

City of Clearlake 2040 General Plan

General Plans are prepared under mandate from the State of California, which requires each city and county to prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. The general plan describes plans for the physical development of a jurisdiction and of any land outside its boundaries that, in the jurisdiction's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including population and housing, among other things.

Projected growth rates in the General Plan indicate an additional 2,314 housing units and 682,944 square feet of commercial building area will be built by 2040. Based on the technical memorandum completed for the General Plan, Tables 4.11-4 and 4.11-5 below show the growth rates and future economic conditions[5]. This growth rate was based on historical trends and market conditions, estimating the job growth to be reduced over the long term from 2.85 percent to 1.1 percent annually.

The General Plan references this site as a portion of an approximately 120-acre Regional Shopping Center-"Walmart Airport Area" (see Figure 4.11-1, Preferred Growth Scenarios in Clearlake General Plan).

[5] Economic Planning Systems Inc. Clearlake General Plan Technical Background Report Review and Technical Support; EPS #152128, May 4, 2016. Available at: Background Report - City of Clearlake General Plan Update. Accessed June 27, 2025.

Table 4.11-4: General Plan Population Comparison and Growth Rates

Population	Clearlake	Lakeport	Lake County	Oroville	Redding	State of California
County	Lake	Lake	Lake	Butte	Shasta	n/a
Historic population trends						
2000[1]	13,142	4,820	58,309	13,004	80,865	33,871,648
2010[1]	15,250	4,753	64,665	15,546	89,861	37,253,956
2015[2]	14,977	4,699	64,918	16,197	91,110	38,714,725
Average annual growth 2000-2010	1.50%	(0.14%)	1.04%	1.80%	1.06%	0.96%
Average annual growth 2010-2015	(0.36%)	(0.23%)	0.08%	0.82%	0.28%	0.77%
Average annual growth 2000-2015	**0.88%**	**(0.17%)**	**0.72%**	**1.47%**	**0.80%**	**0.89%**
Population Growth Projections						
General Plan Start Year[3 & 4]	2015	2000	2007	1990	2000	
General Plan End Year	2040	2025	2030	2025	2020	
Projected Population						
Population in Start Year	14,997	4,820	68,322	11,960	81,198	
Population in End Year[5]	21,230	6,859	101,557	21,351	113,500	
Overall growth over plan years	**41.56%**	**42.30%**	**48.62%**	**78.52%**	**39.78%**	
Average Annual Growth	**1.40%**	**1.42%**	**1.74%**	**1.67%**	**1.69%**	

Source: US Census; State of California Department of Finance; City of Clearlake; City of Lakeport; Lake County; City of Oroville; City of Redding; EPS.

1. US Census population estimates.
2. State of California Department of Finance; estimated population as of January 2015.
3. Population growth projections according to the General Plans for each respective city.
4. The Grass Valley General Plan accounts for the plan's "planning area," which includes some areas outside of Grass Valley proper.
5. The Oroville General Plan assumes that the average annual growth rate from 1990-2015 remains consistent over the next 25 years. The Oroville projected population is calculated using this historic average annual growth rate.

Table 4.11-5: General Plan Projected Non-Residential Growth Rates

2040 Estimated Nonresidential Growth

Item	Jobs	Average Square Feet (SF)/ Employee	SF (rounded to nearest thousand)	Floor Area Ratio	Net Acres	Gross Acres[1]	Total Acres with Contingency[2]
Assumption						*20%*	*25%*
Job Sector							
Retail	584	500	292,000	0.25	26.8	32.2	40.2
Office	421	250	105,000	0.35	6.9	8.3	10.3
Industrial	44	1,250	55,000	0.35	3.6	4.3	5.4
Total	**1,049**		**452,000 SF**		**37.3 ac.**	**44.8 ac.**	**56.0 ac.**

Notes:

1. A 20% factor is applied to the net acres to account for infrastructure, rights-of-way, and other factors that could impede development.
2. EPS recommends a 25% contingency factor to account for possible redevelopment and a sufficient land supply for planning purposes.

General Plan Policies and Programs

A number of General plan policies and programs related to population and housing are referenced below:

Land Use Element

Policy LU 1.1.1	The City should grow contiguously to manage the efficiency of public services and municipal infrastructure provision, to maintain a compact and well-defined community form, and to oblige its fiscal responsibility.
Policy LU 1.1.7	An assortment of housing types should be provided to meet community and regional housing needs and to fulfill objectives of choice and affordability.
Policy LU 1.1.8	Appropriate locations for low- and high-density residential development shall be provided based on accessibility, site suitability, utility availability, and environmental factors.
Policy LU 6.2.1	Housing should be arranged to accommodate community parks and open space including provisions for pedestrian and bicycle connectivity.

Economic Development

Policy ED 2.1.1	The City should approve development proposals suitable for business districts with specific functional uses including office, commercial, retail, and applicable industry.
Program ED 2.4.1.1	The City should attract industries to match the skill levels of available labor force such as construction, service and retail, and light industry.
Policy ED 5.1.1	The City should attract and incentivize large retailers into the City and specifically to the regional shopping hub made up of the old airport area and existing Clearlake Shopping Center area.
Program ED 5.1.1.1	The City should designate appropriate and easily accessible large lots for retail development and expansion near State Route 53.
Program ED 5.1.1.2	The City shall allow the use of the former airport area for additional regional retail and commercial expansion.

Housing Element (2019-27)

Policy H 2:	The City shall enforce its land use policies that allow residential growth to be accommodated with a variety of housing types within a range of densities.
Policy H 4:	Ensure a regulatory environment conducive to housing production and maintenance.
Policy H 6:	Improve the quality of the existing housing stock within the City.

City of Clearlake Zoning Code, Title 18 of the Municipal Code

The City of Clearlake Zoning Code includes standards for housing development including locations of housing by zoning district via the Zoning Map and includes development standards, such as lot size, maximum building heights, building setbacks, types of dwelling units permitted, such as single-family, multiple-family, affordable housing, and accessory dwelling unit. Section 18-33, Design includes housing design standards along with other design standards such as landscaping, parking, and trash enclosures. These standards address building design characteristics such as siding material, roof design, driveway surfacing, and other features.

4.11.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential impacts related to population and housing. A discussion of the project's potential impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact may be considered significant if the proposed project would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in

the development of a maximum of 535,500 square feet of non-residential building area and three dwellings (see Section 4.9, Land Use). Complete buildout of the project site, however, would be conducted over a long period of time beyond the 2040 General Plan time horizon.

Public Resources Code Section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines Section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project's particular impacts as compared to General Plan build out of the site.

4.11-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure (*Less than Significant*)

The project site is located on the site of the former Pearce Airport, which closed in 1994, and has been identified for new commercial, residential, shopping and restaurant development in both the 1983 and current 2040 General Plans. The regional shopping center shown for the project site in the 2040 General Plan, consisting of about 120 acres, includes the existing Clearlake Shopping Center on the east side of Highway 53, as well as the project site on the west side. The regional shopping center site is divided by Highway 53 but will be connected by roadways and walkways. The Project also includes a pedestrian bridge between the west and east sides of the highway to improve community connectivity.

The Project would implement a Planned Development overlay zoning district to create a regional destination that meets the needs of the area through new commercial, residential, shopping and restaurant venues. The project will include new roadways and infrastructure to support the future site development. The site is primarily vacant land but is substantially surrounded by development consisting of a mix of commercial, institutional, and residential uses which are already served by water and sewer infrastructure. Therefore, improving internal roadways and infrastructure will not induce substantial population growth beyond that already contemplated in the General Plan.

General Plan Evaluation

The 2040 General Plan and associated EIR evaluated the project site as a regional shopping center. The Proposed Project includes development of up to 250 dwelling units, which translates to 650 new residences. Throughout the General Plan, there is encouragement to develop mixed-use housing/commercial development. The addition of mixed-use development to accommodate housing would be consistent with many Housing Element policies and programs to promote the development of more housing in Clearlake. The addition of

more housing, and more diversified, mixed-use development opportunities from the Project would also improve the City's ability to meet the State-mandated housing production goals from the Regional Housing Needs Allocation. While the 2040 General Plan estimates housing unit build-out to be 2,314 units by 2040, the City has lost housing units from recent wildfires, the additional units proposed by the Project would help offset this loss.

Project development would be considered infill development so expansion of public service facilities, such as roads, water and sewer, which can induce growth, would be limited to the Project site and not extend beyond that. Section 4.12 of this Chapter, concerning public services and utilities evaluates infrastructure capacity needs to accommodate the Project.

Conclusion

Implementation of the proposed Project would not induce substantial population growth in the area, either directly or indirectly, and this impact is considered ***less than significant***.

Mitigation Measures

None required.

4.11-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere (*No Impact*)

There is no housing that currently exists on the project site. The project proposes up to 250 new dwelling units. Consequently, the project will increase housing construction but not displace housing. Also, the City recently lost housing units from recent wildfires. The addition of 250 more dwelling units will partially offset the need for replacing these lost housing units.

General Plan Evaluation

The General Plan projected growth in Clearlake to 2040 to include an additional 2,314 housing units and 682,944 square feet of commercial building area. The General Plan also indicates that the estimated population in the City would be 17,234 in 2025, but the 2025 DOF population estimate for Clearlake was 16,533[6].

Conclusion

Implementation of the proposed Project would not displace any housing necessitating the need to construct new housing elsewhere to replace displaced housing. There is ***no impact*** related to this issue.

[6] California Department of Finance, 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State. May, 1, 2025. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/ Accessed May 1, 2025.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

4.11-3 Cumulative impacts related to an increase in population and displacement of housing (*Less than Significant*)

The project is expected to increase residential development in the City by up to 250 new dwelling units which translates to 650 new residents. The General Plan estimates build-out to be 2,314 (2040), but the City has lost housing units from recent wildfires, so the additional units proposed will help offset this loss. Cumulatively with the Project and build-out, the project will not result in any displaced housing as there is no housing currently on the project site.

General Plan Evaluation

The General Plan anticipates housing and population increases at a greater level cumulatively than as proposed by the project. Since the Proposed Project will not displace housing and population growth has been anticipated under the General Plan, the project is consistent with the General Plan.

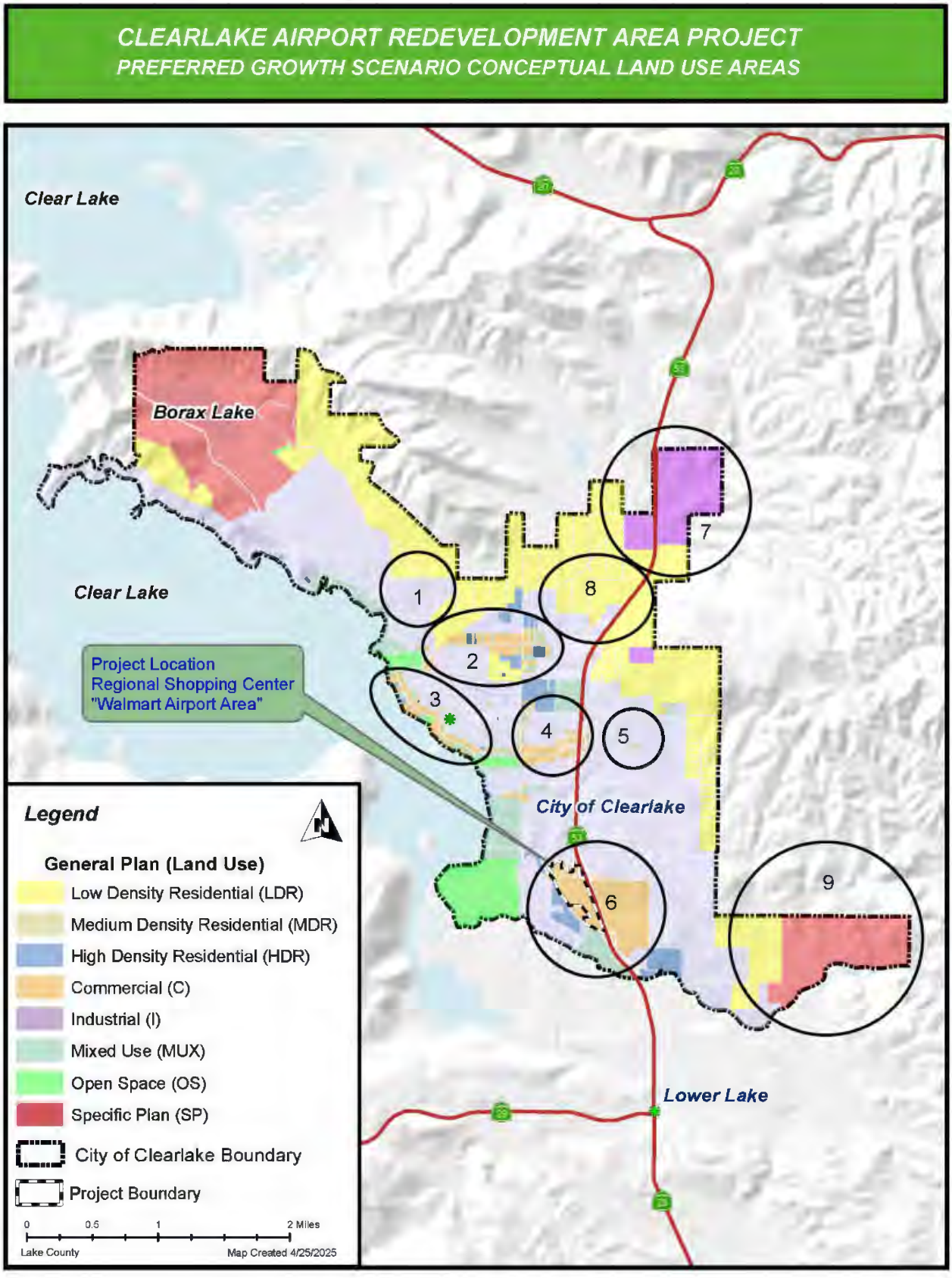
Conclusion

Cumulative projects impacts related to population increases and displacement of housing are therefore ***less than significant***.

Mitigation Measures

None required.

Figure 4.11-1: Preferred Growth Scenarios in Clearlake General Plan



4.12 PUBLIC SERVICES AND UTILITIES

4.12.1 Introduction

The purpose of this EIR section is to provide an overview of existing public services and utilities within the project site and surrounding region, associated regulatory framework, and an analysis of potential impacts that would result from implementation of the Proposed Project. Public services discussed in this section include fire protection, police, parks, schools, recreation services and other public services. Utilities discussed in this section include wastewater, electricity, and natural gas. Service systems for solid waste disposal, stormwater drainage and water supply are also described. More details on stormwater runoff impacts such as to hydrology (surface and groundwater) and erosion are covered in Section 4.8, "Hydrology and Water Quality."

Much of the information in this section is derived from the Clearlake 2040 General Plan Update, the Draft Environmental Impact Report for the Clearlake 2040 General Plan Update, the City of Clearlake General Plan 2040 Background Report, the City of Clearlake Municipal Services Review and Sphere of Influence, Lake County Sanitation District (LACOSAN) Sphere of Influence, and Clearlake Water Providers Municipal Service Review and Sphere of Influence.

During the NOP comment period for the EIR, several comments were received regarding public services, including the following:

> Lake County Fire Protection District, Autumn Lancaster, Fire Marshal/FF Paramedic, July 18, 2024. Project needs to meet minimum fire hydrant and circulation requirements based on fire codes LCFPD Station 71, located within the project boundaries, is planned to be upgraded to staffed as City of Clearlake develops and requires additional emergency services (see Project-Specific Impacts and Mitigation Measures – Fire and Emergency Services, page 4.12-21).
>
> Lake County Special Districts, Lori A. Baca, Supervisor, August 6, 2024. Provide a Sewer Capacity Analysis/Hydraulic Model to examine the sewer collection, pumping and treatment as applicable to the project area to identify deficiencies in the system from the project site to the treatment plant (see Project-Specific Impacts and Mitigation Measures – Wastewater Treatment Capacity, pages 4.12-26 to 4.12-29).
>
> Highlands Mutual Water Company, Tina Wallis, Attorney, Frost, Brown Todd, August 17, 2024. Recommends the City determine water service/supply for the project. Requests that the City provide a current water use forecast for the project. Requests that the City provide more recent information on water demand and supply analysis (see Project-Specific Impacts and Mitigation Measures – Current and Anticipated Water Supply Requirements, pages 4.12-29 to 4.12-30).

4.12.2 Existing Environmental Setting

Police Protection Services

The City of Clearlake Police Department (CPD) provides law enforcement services within the City of Clearlake, including the project site. The Clearlake Police Station is located at 14050 Olympic Drive, in the same building as City Hall, in the downtown area. The CPD serves a population of about 16,533 people. The department is authorized to maintain a staff of 39 personnel, 25 of which are sworn officers. The department maintains a response time to emergency calls of about five minutes, which is also their information response time goal.

The CPD consists of two divisions: the Operations Division, which focuses primarily on patrol activity, and the Support Services Division, which consists primarily of Detectives, Dispatch/Records, Property/Evidence, Animal Control, and Volunteers. In addition, the department also provides parking enforcement and crime prevention services and deploys one School Resource Officer. The CPD uses a single patrol beat system because the City is not geographically large enough to require multiple patrol beats.

In 2024, the Police Department initiated or responded to 21,938 calls for service in the City. These incidents included 3,468 traffic stops, 2,615 cases, 636 suspicious vehicle checks, and 673 person checks. The department also handled 8,469 safety or security checks, 73 citizen assists and 739 welfare checks.

The Department has a goal to maintain a response time of five minutes to Priority 1 calls, which typically relate to incidents in which there is an immediate threat to life, danger of serious physical injury, or danger of major property damage. The average response time to a citizen-initiated call for service was 5 minutes, 18 seconds[1].

The demand for police services and the need for police staff will grow in direct proportion to the growth of population and businesses within the City.

Fire Protection and Emergency Services

The Lake County Fire Protection District (LCFPD) provides fire protection and emergency services to a 165 square mile area, including the City of Clearlake. LCFPD is located on the southeast side of Clearlake and operates six fire stations (see Figure 4.12-1). The nearest staffed fire station to the project site is Station 70, located at 14815 Olympic Drive, approximately three miles from the site. Station 70 serves as the Headquarters for the LCFPD and has 25 paid staff and 16 volunteers and responses to over 5,400 calls per year.[2] Station 65 on Main Street in Lower Lake is staffed part-time by two firefighter/paramedics and one battalion chief between 9 a.m. and 6 p.m. each day. There are 25 volunteers that support the district and volunteer fire stations.

[1] Email exchange with Ryan B. Peterson, Lieutenant, Clearlake Police Department on May 8, 2025.
[2] Lake County LAFCO, Municipal Service Review and Sphere of Influence for Fire Protection Districts, January, 2025. https://www.lakelafco.org/files/b20e32dc7/2025-01-15_draft_fire_districts_msr-soi.pdf. Accessed August 12, 2025.

The "2025 Municipal Service Review and Sphere of Influence, Fire Districts for Lake Local Agency Formation Commission" concludes that the LCFPD has adequate capacity to provide for fire protection and medical emergencies for LCFPD. The District maintains six fire stations and has sufficient staff to meet the needs of the population within the LCFPD.[3] When building permits are issued for build-out under the Proposed Project, development impact fees will be collected to pay for capital facility improvements to offset the impact from serving the Project.

Through Measure D, Ordinance 2016-1001 was adopted, authorizing the District to levy a special tax on parcels within the LCFPD. This funding augments other funding for fire protection and prevention, rescue, emergency medical services and transportation, hazardous material, and other services relating to the protection of lives and property.

Fire Insurance Rating

In 2024, the Insurance Services Office (ISO) gave the LCFPD an ISO rating of 4.[4] A Class 4 rating means the property is located in an area where the fire department is considered to have good fire protection capabilities as it is within easy access of fire stations and hydrants. The ISO organization analyzes and provides statistical information on risk, which heavily impacts residential and commercial insurance rates. The ISO Public Protection Classification (PPC) rating is from 10 to 1, with "1" being the best rating available.

ISO evaluates communities and assesses a PPC based on a variety of technical and demographic factors for each individual city and their fire department. Some examples are the equipment a fire department owns or the distance between fire hydrants. The ISO also requests that fire departments conduct 20 hours of training per firefighter, each month, in order to maximize points for every training aid. The demand for fire services and the need for fire staff will grow in direct proportion to the growth of population and businesses in the City.

Schools

The Konocti Unified School District primarily serves the city of Clearlake, along with other towns like Clearlake Oaks and Lower Lake, as well as Spring Valley and part of Cobb Mountain.[5] The district has 11 schools and a total enrollment of 3,816 students.[6] Clearlake has two elementary schools serving kindergarten through 8th grade students, one alternative school serving 3rd through 8th, and one community college, Woodland Community College. Clearlake lies within

[3] Lake LAFCO, Municipal Service Review (MSR) and Sphere of Influence (SOI) Fire Protection Districts. 2025.
[4] Insurance Services Office, Inc. Public Protection Classification Summary Report for Lake CO FPSA. January 2024. https://static1.squarespace.com/static/6576148632d5e331cd03eb00/t/673b9f090edf557c133279ae/1731960586186/ISO+Report+5-1-2024.pdf. Accessed August 12,2025.
[5] Konocti School District, District Overview, accessed June 11, 2026.

the Konocti Unified School District. Burns Valley Elementary has an enrollment of 544 kindergarten through 7 grade students.[7] Pomo Elementary School has an enrollment of 711 students.[8] Eighth graders and high school students in Clearlake attend Lower Lake High School which has an attendance of 1,057.[9]

The District is planning for increasing enrollments based on population growth in the region. Other schools in Clearlake include Highland Academy, Woodland Community College, Clearlake Community School, and Clearlake SDA Christian School. As noted in Section 4.11, "Population, Housing, and Employment," of this EIR, while the population has declined in Clearlake recently, school enrollment has continued to grow, potentially reflecting growth in other areas of the District beyond Clearlake. The School District has planned for continued growth consistent with growth projections of the 2040 General Plan.

Library

The Redbud Branch of the Lake County library system, located at 14785 Burns Valley Road, in Clearlake, is a 13,203 square foot library featuring over 50,000 books, DVDs, audiobooks, and more. It is a regional library serving the public beyond those in Clearlake.

Open Space, Parks and Recreation Systems

Open space occupies 662.7 acres of land within Clearlake, which represents about 9.53 percent of the total acreage in the City. The city currently maintains three parks containing approximately 39.7 acres described as follows:

- Austin Park, a 22.5-acre community park
- Highlands Park, a 1.5-acre mini park
- Redbud Park, a 15.7-acre community park

The City is also planning a 26-acre community park that was recently approved for development known as Burns Valley Park. Combined with the other parks, the City will have over 65 acres of active park land. In addition, Anderson Marsh State Historical Park is adjacent to the City, and consists of over 1,600 acres of open space and active park land.

[7] Konocti School District, Donor's Choice. Donor's Choice - Burns Valley Elementary School. Accessed May 1, 2025.
[8] Konocti School District, Donor's Choice. Donor's Choice - Pomo Elementary School. Accessed May 1, 2025.
[9] Konocti School District, Donor's Choice. Donor's Choice - Konocti School District. Accessed May 1, 2025.

Hospitals and Medical Services

St Helena Hospital, managed by Adventist Health Care, located at 15630 18th Avenue in Clearlake, offers 24-hour emergency care, an Intensive Care Unit, obstetric, cardiopulmonary, medical imaging, surgery, rehabilitation (pulmonary, physical, occupational, speech), and laboratory services. Established in 1968 as a 27-bed district hospital, St. Helena Hospital Clear Lake added an Intensive Care Unit in 1983 and increased to 40 beds. Other medical facilities in and around Clearlake include Adventist Health Care satellite facilities and the Lake County Tribal Health Center at 14440 Olympic Drive in Clearlake.

Water Supply and Water Services

There are four water service providers in the vicinity of the project, Golden State Water Company, Highlands Mutual Water Company (HMWC), Konocti County Water District (KCWD), and Lower Lake County Water Works District (see Figure 4.12-2). Of these four providers, the majority of the Project area is within the service area of HMWC (about 41.29 acres) and the northern portion of the project area (about 13.29 acres) is within the KCWD service area (see Figure 4.12-3). HMWC is privately owned by the company's customers and governed by an elected board, whereas the KCWD is a public water district. Both treated water service providers are supplied by water from Clear Lake, a surface water source. HMWC has prescriptive water rights for 78.89 acre-feet per year (af/y) and a contract with Yolo County Flood Control and Water Conservation District for up to 3,000 af/y. The Yolo County Flood Control and Water Conservation District controls the Cache Creek Dam which is the outlet of Clear Lake and holds appropriative water rights for the lake. KCWD water system's supply is provided pursuant to a 1994 agreement to purchase up to 2,500 af/y from the Yolo County Flood Control and Water Conservation District. The Agreement has a 10-year automatic renewal clause with a provision should either the KCWD or the YCFCWCD not desire to renew.[10]

Wastewater Conveyance and Treatment

Wastewater conveyance and treatment in the City of Clearlake is provided by Lake County Sanitation District. The District has several facilities it serves throughout the County (see Figure 4.12-5). The southeast (SE) system collects and treats wastewater in the Clearlake area. This system provides a dry/wet flow capacity of 1.9/6.1 million gallons per day (mgd) and provides service to over 8,500 connections.[11] The conveyance system serves a population of over 16,000 including businesses and residents in Clearlake and Lower Lake. The SE system includes a wastewater conveyance system that extends from Pirates Cove to Lower Lake.

All treated wastewater is recycled at the Geysers; the world's largest complex of geothermal power plants (energy derived from the heat of the earth's core). In 2021 the District received an Integrated Regional Water Management (IRWM) grant to reduce inflow and infiltration (I/I) in the SE collection system. The grant is helping to fund efforts to reduce I/I which includes a multi-conductor

[10] Lake County LAFCO. 2010. Municipal Service Review (MSR) and Sphere of Influence (SOI) Konocti County Water District. Adopted November 18, 2020.
[11] Lake County Special Districts Website, Southeast Regional Wastewater System, June 25, 2025. Viewed at https://www.lakecountyca.gov/985/Southeast-Regional-Wastewater-System

mainline TV van and inspection software/hardware to assist in inspecting and analyzing the condition of the collection system, installation of I/I manhole barrier bowls that prevent I/I through the manhole lid, I/I point repairs at approximately 20 to 30 locations, manhole lining of approximately 500 to 700 manholes, and possible cured-in-place pipelining to rehabilitate aged, deteriorated sewer mains.

The system has over 1,900 manholes, over 90 miles of collection system piping, 23 lift stations, and over 10 miles of force main piping for conveying wastewater flows to the SE treatment plant.[12] The SE treatment plant, located about one mile north of the City at 2515 Old Highway 53, has aerated lagoons and an average dry weather flow of 0.90 mgd and a monthly average wet weather flow of 2.30 mgd (see Figure 4-12.6).

The collection system extends from Pirates Cove to Lower Lake and includes the City of Clearlake. Due to the proximity to the lake and the seasonal high-water table, a significant amount of groundwater intrusion occurs within the system during the winter. Seasonal high lake levels and winter rains also contribute to I/I, which makes up a large percentage of winter flows. The force main project completed in 2013 was designed to address these winter flow issues and improve performance throughout the system.

The District continues to conduct aggressive I/I mitigation and hydraulic modeling for evaluating the structure and capacity within the SE collection system. The model evaluates storage capacity and flows within the main sections of the trunk line serving the collection system. The model can be expanded into additional locations within the service area for evaluating impacts associated with new development.

Significant capital improvements were completed to the system in 2013 to address previous capacity deficiencies and provide for future planned development of nearly 2,200 equivalent dwelling units (EDUs) of capacity over the next ten to fifteen years. In effect, this project allows hydraulic loads to be increased to the treatment plant.

According to the District's Sanitary Sewer Management Plan, the SE system provides adequate capacity for planned development contemplated in the City's and County General Plans. Due to the recent Jerusalem and Clayton wildfires, which removed connections from the system, there has been a reduction in wastewater discharge/collection.[13] The District continues to make improvements to the system to increase capacity while developing programs to reduce and/or enhance the quality of wastewater discharge into the system.

[12] Lake County LAFCO, LACOSAN Sphere of Influence Update, 2013. https://www.lakelafco.org/files/615b9ea01/adopted_lacosan_soi_3.20.13.pdf. Accessed August 12, 2025.
[13] Lake County Special Districts, Sanitary Sewer Management Plan for the Southeast Regional Wastewater Collection System, Revised November 2022.

Stormwater Drainage

Historically, the drainage system was developed to reflect the downstream area of the Clear Lake watershed near the point of disposal of runoff waters, which all end up in Clear Lake. With development of upstream areas, the amount of damage and flooding that can occur to downstream areas is increased. In general, the highest flood risk is in locations adjacent to streams, creeks, tributaries, and waterways. The project site is not located in a high flood zone (more details of the hydrologic characteristics of the project site are found in Section 4.8, Hydrology and Water Quality, of this EIR).

The City's storm drain system includes 63 miles of storm drain piping ranging in size from 12 inches to 84 inches in diameter. The storm water system also includes three major detention basins also described in more detail citywide in Section 4.8, Hydrology and Water Quality, in this EIR. The Project area drains predominantly in a west direction, away from Highway 53 conveying storm drainage to an existing storm drain that crosses Old Highway 53 and on with eventual release in Clearlake.

Stormwater system facilities are provided through development and the City's Capital Improvement Program based on the City's Master Drainage Plan. The Project proposes two locations with existing storm drain underground piping that will be used as release points for on-site storm drainage overflow. The first, located on Old Highway 53 just north of the proposed 18th Avenue intersection, consists of a large structure flush with the existing grade. This structure amounts to a junction box system which currently accepts piped stormwater from the northeast and conveys it under Old Highway 53 to the west side of the road to another flush junction box with surface grate. The existing underground crossing pipes are sized at 36 inches and 24 inches (see Figure 4.12-7).

Solid Waste Services

Clearlake Waste Solutions (CWS), a private company, provides solid waste collection, including curbside collection. Organics are transported to Quackenbush Resource Recovery for processing. Solid waste is transported to the Eastlake Sanitary Landfill. CWS transports recycling to Pacific Recycling Solutions, a material recovery facility located in Ukiah, which processes recyclables by sorting, removing contaminants, bailing and shipping recyclables to manufacturers for production of new products.

Lake County operates the Eastlake Sanitary Landfill, located east of the City of Clearlake at 16016 Davis Avenue. Eastlake Landfill is a 74-acre Class III facility and is the only disposal facility in the County. The landfill is permitted to accept a maximum of 200 tons per day, with a total maximum capacity of 7,930,000 cubic yards. The landfill has about 2,859,962 cubic yards of remaining capacity with anticipated closure in 2043.[14] The landfill was recently upgraded with a number of improvements conducted including adding lateral expansion areas occupying approximately 21.8

[14] CalRecycle. SWIS Facilty/Site Activity Details: Eastlake Sanitary Landfill (17-AA-0001). CalRecycle - Eastlake Sanitary Landfill Site Activity. Accessed May 8, 2025.

acres and planned development of a 1.93 million cubic yards storage facility.[15] Recycling items accepted at the landfill include metal, plastics, glass, and paper.

Compostable materials are delivered to the Quackenbush Mountain Compost Facility. The facility includes a 17-acre mixed composting cell (agricultural, food wastes, green materials) with a permitted processing capacity of 260 tons per day, and a maximum capacity of 60,000 cubic yards. The facility also includes a 6.5-acre construction and demolition materials cell with a processing capacity of 200 tons per day, and a maximum capacity of 24,000 cubic yards. Additionally, the facility provides a large volume transfer and processing cell, which redistributes excess construction and demolition materials, green materials, and wood waste.

Electrical and Gas Utilities

Pacific Gas and Electric Company (PG&E), a subsidiary of PG&E Corporation, provides electricity to the city. With a total service area of 70,000 square miles in northern and central California, PG&E serves approximately 15 million people. According to a 2023 report, electric power produced by PG&E is comprised of 32.8 percent renewable sources, 53.4 percent nuclear sources, and 13 percent large hydroelectric sources, with virtually all power provided being from greenhouse-gas-emission free sources.[16]

There is no natural gas service provided in Clearlake, as well as no high transmission lines provided by PG&E. There are no plans to extend natural gas service to the city.

Telecommunications

Telephone service providers in Clearlake include US Cellular, AT&T, and Verizon. Internet providers include Mediacom, Hughesnet, Starlink, DigitalPath, and North Coast Networks.

4.12.3 Regulatory Context

Federal and State

Police Protection

There are no federal or state regulations related to police protection services applicable to the Proposed Project.

[15] Email and phone communication with Kris Byrd, Manager, Lake County Environmental Health Department on May 13, 2025.
[16] PG&E. 2023 Power Mix. https://www.pge.com/assets/pge/docs/account/billing-and-assistance/bill-inserts/1224-power-content-label.pdf. Accessed July 22, 2025.

Fire Protection and Emergency Services

California Occupational Safety and Health Administration

In accordance with Title 8 California Code of Regulations (CCR) sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment. The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

California Fire Code

The City has adopted the 2021 International Fire Code (IFC) and the 2022 California Fire Code (CFC), which is based on the IFC with amendments. These codes contain regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code (HSC). This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

National Fire Protection Association 1710

The purpose of the National Fire Protection Association (NFPA) 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments is to: contain minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments; address functions and objectives of fire department emergency service delivery, response capabilities, and resources; contain general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning; and address the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident. According

to these guidelines, a career fire department needs to respond within six minutes, 90 percent of the time, with a response time measured from the 911 call to the time of arrival of the first responder.

The standards are divided as follows:

- Dispatch time of one (1) minute or less for at least 90 percent of the alarms
- Turnout time of one (1) minute or less for EMS calls (80 seconds for fire and special operations response)
- Fire response travel time of four (4) minutes or less for the arrival of the first arriving engine company at a fire incident and eight (8) minutes or less travel time for the deployment of an initial full alarm assignment at a fire incident
- Eight (8) minutes or less travel time for the arrival of an advanced life support (ALS) (4 minutes or less if provided by the fire department

Schools

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State.

California Department of Education

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as the lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations. Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio. Certain health and safety requirements for school site selection are governed by state regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses; and/or
- Traffic and school bus safety issues.

Proposition 1A/Senate Bill 50

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill No. 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district's authority to levy school impact fees. This comprehensive legislation, together with the $9.2 billion education bond act approved by the voters in November 1998 known as "Proposition 1A," reformed methods of school construction financing in California.

SB 50 instituted a new school facility program by which school districts can apply for state construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.

- Level II fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30 percent of the district's bonding capacity (percentage is based on revenue sources for repayment), having at least 20 percent of the district's teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50 percent plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.

- Level III fees are outlined in Government Code Section 65995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

The Konocti Unified School District currently requires Level I fees for residential and commercial construction. Effective July 11, 2022, the developer fee rates are $4.79 per sq. ft. for residential construction and $0.78 per sq. ft. for commercial or industrial construction.[17]

[17] Konocti Unified School District, Business & Fiscal Services, accessed June 11, 2026.

Library

There are no state or federal laws governing the provision of library services to the Proposed Project.

Open Space, Parks and Recreation Systems

Quimby Act

California Government Code section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public-school grounds.

Hospitals and Medical Services

There are no state or federal laws governing the provision of hospital and medical services to the Proposed Project.

Water Supply

Water Conservation Projects Act

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code, sections 11950 – 11954). Consistent with California Water Code sections 11950 – 11954, the City has implemented various water conservation efforts, as well as Water Shortage Contingency Plan that identifies actions that can be taken to respond to catastrophic interruption of water supply.

Senate Bill (SB) 610

Senate Bill (SB) 610 was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the California Water Code section 10910 et seq. The foundation document for compliance with SB 610 is the Urban Water Management Plan (UWMP), which provides an important source of information for cities and counties as they update their general plans. Likewise, planning documents such as general plans and specific plans form the basis for the demand information contained in an UWMP, as well as a Water Supply Assessment required under SB 610.

Water Code Section 10910 (c)(4) states "If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year

projection, will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses, including agricultural and manufacturing uses."

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions. This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier for a project. In addition, SB 610 requires the preparation of a Water Supply Assessment if a project meets the definition of a "Project" under Water Code Section 10912 (a). The Code defines a "Project" as meeting any of the following criteria:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A hotel or motel with more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of these elements; or
- A project creating the equivalent demand of 500 residential units.

California Model Water Efficient Landscape Ordinance

The Water Conservation in Landscaping Act was enacted in 2006, requiring the California Department of Water Resources (DWR) to update the Model Water Efficient Landscape Ordinance (MWELO). In 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required a retail water supplier or a county to adopt the provisions of the MWELO by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELO provisions. The City adopted its own water efficient landscape ordinance as part of the Zoning Code, section 18-20.130, on December 3, 2020. This local ordinance implements MWELO and requires project applicants to prepare plans consistent with the requirements of MWELO for review and approval by the City.

Wastewater Conveyance and Treatment

Clean Water Act/National Pollutant Discharge Elimination System (NPDES) Permits

The Clean Water Act (CWA) is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water." The

CWA regulates discharges from “non-point source” and traditional “point source” facilities, such as municipal sewage plants and industrial facilities.

Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. All so-called "indirect" dischargers are not required to obtain NPDES permits. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

The City’s current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the Central Valley Regional Water Quality Control Board, Central Valley Region, under Order R5-2020-007 and Order CA0079138.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California’s statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State’s waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (SWRCB) has the authority and responsibility for establishing policy related to the State’s water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB).
The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits. Under the Central Valley Regional Water Quality Control Board NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility’s discharge.

Stormwater Drainage

Discharge requirements for stormwater drainage are governed by the same federal and state regulations identified above for wastewater conveyance and treatment,

Solid Waste Services

California's Integrated Waste Management Act of 1989 (AB 939)

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. AB 939 achieves this goal by requiring that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 939 also established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. To achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

75 Percent Solid Waste Diversion

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to recycle 75 percent of the solid waste generated in the state by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by July 1, 2012, and streamlines various regulatory processes.

Construction and Demolition Waste Materials Diversion

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the California Integrated Waste Management Board (CIWMB, which is now CalRecycle) to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects (CALGreen section 5.713).

California Organic Waste Regulations (SB 1383)

SB 1383 was adopted to reduce organics waste landfill disposal by 75 percent (from 2014 levels) by 2025. This means diverting more than 20 million tons from landfills. The legislation aims to slow climate change by diverting organic materials from landfills, recovering 20 percent of edible food and redirecting it to food-insecure Californians.

As of January 2022, Tier 1 Food Generators (including businesses that have more produce, fresh groceries, and shelf-made foods to donate) are required to recover the maximum amount of edible food and maintain recovery records. As of January 2024, Tier 2 Food Generators (including businesses which typically have more prepared foods to donate, which often require careful handling

to meet food safety requirements such as time and temperature controls) are now required to do the same.

Electrical and Gas Utilities

There are no state or federal laws governing the provision of energy to the Proposed Project.

Telecommunications

There are no state or federal laws governing the provision of telecommunications to the Proposed Project.

Local

City of Clearlake 2040 General Plan

The City of Clearlake General Plan contains the following goals, policies, and standards that are relevant to public services:

Land Use Element:

Policy LU 1.1.10	Schools, parks, golf courses, and community facilities should be located close to or within residential neighborhoods for accessibility and to provide a focal point for effective and cohesive neighborhood design.[18]

Safety Element

Policy SA 1.1.2	The City shall continue to enforce the California Building Code (CBC) for all new construction and renovation and when occupancy or use changes occur.
Policy SA 4.2.1	The City shall help identify specific facilities and lifelines critical to effective emergency response and evaluate their abilities to survive and operate efficiently immediately after a disaster. In addition, the City should help determine alternative facilities for post disaster assistance in the event that the primary facilities have become unusable.[19]

[18] City of Clearlake. *2040 General Plan Update.* https://www.clearlake.ca.us/DocumentCenter/View/2502/General-Plan-2040. 35. Accessed August 8, 2025.
[19] City of Clearlake. *2040 General Plan Update.* 137 and 144.

Public Facilities Element

Policy PF 1.1.2	The City should support Konocti Unified School District's efforts to provide school sites and facilities that meet the educational needs of the community.
Policy PF 3.1.1	The City shall help educate and encourage the proper disposal of trash on private property, in addition to the disposal of trash in public places.
Policy PF 4.1.1	The City shall add police and emergency response facilities as needed to address population growth and distribution patterns.
Policy PF 4.1.2	The City shall strive to maintain minimum personnel to population ratios for police services.
Policy PF 5.1.1	The City should work with the sewer district to monitor wastewater demand and capacity.
Program PF 5.1.1.1	The City should support the sewer district in assessing and revising estimates of present and future wastewater demand.
Policy PF 5.1.2	The City should work with the sewer district to prioritize infrastructure improvements and sewer system maintenance to accommodate projected growth from the General Plan.
Program PF 6.1.1.1	The City shall work with water providers to expand water treatment and conveyance infrastructure to meet city needs and population growth.
Policy PF 6.1.2	The City should help develop a strategy to prioritize water infrastructure expansion and maintenance in collaboration with water providers.
Program PF 7.1.2	New development proposals shall be reviewed for adequate storm water management and capacity
Program PF 7.1.2.1	The City shall develop a Low Impact Development (LID) program which outlines approved on-site storm water runoff mitigation measures.[20]

Health Element

Policy HE 1.1.1	The City shall encourage service connections to healthcare facilities by different forms of public transportation.

[20] City of Clearlake. *2040 General Plan Update.* 162-167.

Policy HE 1.2.1	The City shall support and encourage the enhancement of existing and development of new healthcare facilities in Clearlake, including mental health facilities, to meet the needs of the community.
Policy HE 2.1.1	The City should support community efforts to provide safe, convenient access to purchase fresh fruits and vegetables.
Program HE 2.1.1.1	The City should support the establishment of farmers markets in the community.
Policy HE 3.4.1	The City should encourage collaboration between local health systems, local health officials, and law enforcement.
Policy HE 4.1.1	To the extent feasible, the City shall improve road conditions and public spaces to increase visibility and foster better social connections among residents.
Program HE 4.1.1.1	To the extent feasible, the City shall improve lighting on streets, sidewalks, crossings and public amenities to improve safety in pedestrian and recreational areas.[21]

City of Clearlake Municipal Code

Solid Waste Disposal

Chapter 11, section 2 of the City of Clear Lake Municipal Code regulates the collection, transportation, and disposal of refuse and solid waste of all kinds, and the collection, transfer and recovery of recyclable and organic waste material in order to promote community welfare, convenience, health, and safety.[22]

Stormwater Management

In accordance with the Federal Clean Water Act, Chapter 14 of the Municipal Code protects and enhances the water quality of water courses and water bodies by reducing pollutants in storm water discharges to the maximum extent practicable and by prohibiting non-storm water discharges. These regulations apply low impact development measures, or LID, to grading and building permits. LID is a stormwater management practice that aims to capture, treat, and infiltrate storm water runoff in a way that mimics pre-project site hydrology.[23]

[21] City of Clearlake. *2040 General Plan Update.* 182-185.
[22] Clearlake Municipal Code Section 11-2, Solid Waste Disposal Policy. https://clearlake.municipal.codes/CMC/11-2. Accessed August 12,2025.
[23] Clearlake Municipal Code Chapter XIV, Storm Water Management Ordinance. https://clearlake.municipal.codes/CMC/ChXIV. Accessed August 12, 2025.

Planned Development Combining Zone

Chapter 18, section 15 of the Municipal Code includes requirements for projects within the Planned Development combining zone. Section 18-15.060 Decision and Findings, requires a minimum of two of the following four features: a minimum 25 percent affordable housing units, 30 percent greater energy efficiency than required by CCR Title 24, preservation of natural features ½ acre or greater in size, and the provision of a substantial public amenity such as a public plaza or park. This section also mandates as a required finding of approval that public facilities, services and utilities are adequate to serve proposed projects.[24]

Property Development Standards

Chapter 18, section 20 of the Municipal Code includes a number of regulations concerning water conservation and solid waste containment as follows:

- Section 18-20.130, Water Efficient Landscaping, addresses State requirements of the Water Conservation in Landscaping Act (discussed above). Section 18-20.130 C references the City's Landscaping Design Standards and Guidelines to support implementing water efficient landscaping throughout the City. Landscaping design and installation must comply with the requirements of the City's Landscaping Design Standards and Guidelines adopted by Council resolution.
- Section 18-20.070 H, Fences, Walls, Trash Enclosures and Hedges, ensures that trash/recycling is contained safely and enables separate trash and recycling enclosure design standards.[25]

Wastewater Regulations and Programs for Lake County Special Districts

The Project is located within Lake County Special Districts boundaries and would be served sewer services in accordance with Lake County's regulations and programs. Lake County Code provides rules and regulations for the use and construction of sanitary sewer facilities hereafter installed, altered or repaired within the Sewer District. Special District rules and regulations concerning wastewater service are established through Lake County Board of Supervisors Resolution No. 2004-191.[26]

4.12.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific impacts related to public services and

[24] Clearlake Municipal Code Section 18-15, Planned Development (PD) Combining Zone. https://clearlake.municipal.codes/CMC/18-15. Accessed August 12, 2025.
[25] Clearlake Municipal Code Section 18-20, Property Development Standards. https://clearlake.municipal.codes/CMC/18-20. Accessed August 12, 2025.
[26] County of Lake. Board of Directors Resolution 2004-191 – Adopting Lake County Sanitation District Wastewater Rules and Regulations. https://www.lakecountyca.gov/DocumentCenter/View/3912/Lake-County-Sanitation-District-LACOSAN-Adopting-Resolution-PDF. Accessed August 12, 2025.

utilities. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the Project would have a significant impact on public services if it would result in:

- Substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

    - Fire Protection
    - Police Protection
    - Schools
    - Parks
    - Water Service Facilities
    - Wastewater Facilities
    - Stormwater Facilities
    - Other public facilities

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 540,000 square feet of commercial building area, using the assumptions of the General Plan EIR traffic analysis. Full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code section 21083.3 contains limitations on CEQA analysis for projects that are consistent with a general plan. When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in CEQA Guidelines section 15183, Streamlining for Infill Projects.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project's particular impacts as compared to General Plan build out of the site.

Impact 4.12-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities (*Less than Significant*)

Fire and Emergency Services

The Lake County Fire Protection District (Fire District) currently operates the station at 14815 Olympic Drive, nearest to the project site. The project site is located within a seven-minute response time from this station and is within the District's response time goal. When building permits are issued for the project, development impact fees will be collected to pay for capital facility improvements to offset the impact from serving the project. The development impact fee is based on the Lake County Fire Protection District Fee Mitigation Fee Study that establishes a connection between the new development and the need for increased fire protection services.[27] The current fee is $1.93 per square foot of residential building area and $2.41 per square foot of non-residential development.

Fees are established within the City in accordance with City Resolution 2024-14 (adopted July 18, 2024). Through Measure D, Ordinance 2016-1001, the District also receives special tax revenue to augment other funding for fire protection and prevention, rescue, emergency medical services and transportation, hazardous material, and other services relating to the protection of lives and property.

Comments from the Fire District reference a list of fire code requirements to address site development, such as minimum fire flow and emergency access. The City enforces the 2021 International Fire Code (IFC) and the 2022 California Fire Code (CFC), and other related fire safety regulations to assure all development complies with these requirements. Site plan review for building permits is conducted by City staff in collaboration with Fire District personnel to ensure compliance.

The Fire District also indicated in their comments that they plan to upgrade Fire Station 71, a small, unstaffed fire station, located within the project boundaries that is described in the Lake County Community Wildfire Protection Plan as Airport Station 71 with volunteer staffing. The City leases this building to the Fire District. Further contemplated improvements and staffing of this building would enhance the District's services to the site.

Existing funding, such as development impact fees, Measure D funding, and grants would help pay for expanded facilities that may be needed to serve the southern portion of the City, including the project site. However, it is noted that any significant upgrades to the building would require approval by the City, because the City owns the building and, under

[27] Ridgeline Municipal Strategies, Lake County Fire Protection District Fee Mitigation Fee Study, December 19, 2023.

the Development Manual, an administrative use permit would be required for such a change.

Implementation of the Proposed Project may require the relocation or construction of new or expanded fire and emergency service facilities, but these facilities are planned and paid for with development impact fees and other revenue sources.

Police Services

The current service ratio for the City of Clearlake Police Department is 0.65 officers per 1,000 people (25 sworn officers/16,533 people-2025). Police service is evaluated and addressed annually on a city-wide level by the Clearlake City Council and Police Chief. The City Council adopts an annual budget allocating resources to police services, which effectively establishes the service ratio for that particular year.

The annual budget is based on community needs and available resources as determined by the City Council and the Police Chief. The Department would also continue to receive aid from other police departments such as those from the Lake County Sherriff's Department and the State Highway Patrol in event of emergencies to meet additional need. Proposition P, a sales tax measure passed by the voters in 1994, imposes a 0.5 percent sales tax on retailers in the city limits to be used only for maintaining police protection services at a service level in excess of the service level existing in 1994. This tax further supplements police protection within the City. Additionally, the General Plan EIR concluded that impacts related to increased demand for law enforcement services were determined to be less than significant.

The existing Police Department would be sufficient to serve the Proposed Project. Therefore, the Proposed Project would not require the construction of new or expanded police stations. However, the Project would be expected to increase residential population by about 635 people, so additional police resources may be needed.[28] This would result in an equivalent increase of one additional sworn officer for the City's Police Department. With anticipated wellness facilities, such as a hospital, the Project can be expected to generate an equivalent need of two sworn officers, though the amount of commercial development and the associated sale tax revenue from this development, particularly with respect to the Proposition P funding, is expected to help increase these resources. Also, the City does not expect to expand its facilities because of the project.

Implementation of the Proposed Project would not require the relocation or construction of new or expanded police facilities or increased service ratios in such a manner as to cause a physical impact on the environment.

Schools

As noted in Section 4.11, Population, Housing, and Employment, of this EIR, population has recently declined in Clearlake. School enrollment has continued to grow, however,

[28] California Department of Finance, 2025. E-5 Population and Housing Estimates for Cities, Counties, and the State. May, 1, 2025. Based on an average household size of 2.54.

potentially from growth in other areas of the Konocti Unified School District beyond Clearlake. The School District has planned for continued growth consistent with growth projections from the 2040 General Plan. The project would result in development and occupancy of up to 250 residential dwelling units which is expected to result in increased enrollment to area-wide schools. Based on the 2020 Census for Clearlake, where 21 percent of households are composed of persons under the age of 18 years old, the project could generate increased enrollment by as much as 120 students. Under the provisions of SB 50, a project's impacts on school facilities are fully mitigated via the payment of the requisite new school construction fees established pursuant to Government Code section 65995. In 2022, the Konocti Dixon Unified School District Board of Education updated the statutory fee amounts to $5.17 per square foot for residential construction; and $0.81 per square foot for new commercial/industrial construction.

Implementation of the Proposed Project would result in some increased enrollment to schools in the area, but developer payment of development impact fees would reduce any potential impacts on public schools.

Parks

The City's General Plan standard is one acre of parks per 1,000 people. The City currently exceeds this based on the current 2025 State Department of Finance (DOF) population estimates of 16,533 at a ratio of one acre of park land per 416 residents. The City maintains three parks containing approximately 39.7 acres, including:

- Austin Park, a 22.5-acre community park (2.8 mi. from the project site)
- Highlands Park, a 1.5-acre mini park (2.2 mi.)
- Redbud Park, a 15.7-acre community park (1.7 mi.)

At full build-out of the Project could result in 250 new dwellings. The DOF estimates that there are 2.9 persons per household in Clearlake. The Proposed Project would therefore be expected to increase population within the City by 725 residents. In accordance with the General Plan standard of one acre per 1,000 people, the project would require 0.73 acres of parkland. The project's Preferred Concept Site Plan proposes over nine acres of open space area, most of which would become active park land or open space intended for public use. The Project involves rezoning the site Planned Development (PD), which in turn includes adoption of the Airport Redevelopment Area Development Manual. The Airport Redevelopment Area Development Manual outlines this land use distribution and includes the General Plan standard of a minimum 0.73 acres for park land reservation. This standard would assure that the Proposed Project would not result in a significant impact related to physical construction of new or expanded parks.

Other Public Facilities

The Proposed Project would bring residents, employees, and visitors to the area and increase demand for other public facilities within the City of Clearlake, such as libraries and community buildings. However, given that the additional population increase associated with the project is a small percentage of the population of the City as a whole, significant

physical impacts due to increased demand on library and other community facilities are not expected. The City evaluates ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the project that would fund capital and labor costs associated with these other public services.

General Plan Evaluation

The General Plan recognizes the growth in Clearlake and addresses the need for additional public facilities to accommodate this growth. Under the General Plan, development of the 54-acre site would result in a 535,000 square-foot commercial center, as compared to the Proposed Project which is a mixed-use center consisting of 436,500 square feet of non-residential building area and 250 residential units. Impacts on these public facilities will therefore be different than evaluated in the General Plan EIR. For example, additional residential uses in the area may increase service calls for fire and police services and result in increased water and sewer demands.

Conclusion

The project would not create adverse physical impacts associated with the provision of new or physically altered governmental facilities, nor would it result in the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities since those facilities/services have already been anticipated under the General Plan. Project construction would not cause significant environmental impacts.

Mitigation Measure(s)

None required.

Impact 4.12-2 Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects (*Less than Significant*)

Except for natural gas and telecommunication facilities, the Proposed Project would require some relocation or construction of water, wastewater, storm drainage, and energy facilities. There are no natural gas facilities in Clearlake, and there are sufficient telecommunication facilities to serve the project without substantial expansion. Details of the water facilities (Figure 4.12-4), wastewater facilities (Figures 4.12-5 and 4.12-6) and drainage facilities (Figures 4.12-7 and 4.12-8) are presented at the end of this report.

The Project will require construction of telecommunication, water, wastewater, storm drainage and energy facilities to support development. As noted in the water and wastewater capacity analysis of this report, there is sufficient capacity in these systems to

accommodate the project. Preliminary plans for water, wastewater and drainage facilities are presented in the project description and the infrastructure support report for the project.

Impact discussions on water and wastewater are further evaluated in Sections 4.12-3 (wastewater) and 4.12-4 (wastewater) of this section. Relative to drainage facilities, the proposed system consists of piping, junctions, and detention ponds. Figure 4-12.8 presents details of the on-site drainage system that is taken from the Drainage Technical Memorandum for the City of Clearlake Airport Commercial Development by California Engineering (see Appendix K). Under the City's stormwater management regulations, the Project will be required to comply with the state's permit requirements regarding stormwater runoff. The City references state permit requirements, City Engineering Standards, and the Lake County Clean Water Program, Low Impact Development Standards Manual for reviewing development and redevelopment projects for compliance. New development projects are required to provide site-specific storm drainage solutions that are consistent with the Lake County Clean Water Program and the underlying NPDES Municipal Separate Storm Sewer System (MS4) permit.

General Plan Evaluation

The General Plan envisioned the project site to develop as a regional shopping center. The project consists of downscaled version of a regional shopping center but includes health facilities and residential. These changes are consistent with the planned land uses under the General Plan which showed that there is a need to construct and relocate water, wastewater treatment, or storm water drainage, electric power, or natural gas, and telecommunications facilities to accommodate the Proposed Project. This Draft EIR indicates that the Proposed Project would result in less impacts to these facilities, with exception of water and wastewater services/facilities. Water and wastewater services/facilities needed to accommodate the project are further evaluated in this Draft EIR, which determines that the Proposed Project could provide these services based on existing and planned capacity.

Conclusion

Physical impacts of construction of these new facilities on the project site have been evaluated within this Draft EIR and mitigation included throughout where any impacts would be potentially significant. With implementation of measures identified in this Draft EIR, impacts related to the physical construction of onsite infrastructure improvements would be ***less than significant***.

Mitigation Measure(s)

None required.

4.12-3 Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (*Less than Significant*)

Lake County Special Districts would provide wastewater treatment for the project. Based on California Engineering's estimates, the Project would discharge about 101,185 gallons per day (dry weather flow) and 122,565 gallons per day (wet weather flow) of wastewater at build-out (see Appendix K). Dry weather flow and wet weather flow describe the volume and characteristics of wastewater in a sewer system, with the key distinction being the presence or absence of rainfall. Dry weather flow represents the typical daily flow during dry conditions, while wet weather flow includes both dry weather flow and the additional runoff and wastewater generated during and after rainfall events. Wet weather flows are particularly critical due to the amount of inflow and infiltration that occurs. Inflow and infiltration are the unwanted entry of stormwater and groundwater into the collection system and results in requiring additional processing.

Due to the proximity to the lake and seasonal high-water table, a significant amount of inflow and infiltration occurs from high groundwater during the winter. Seasonal high lake levels and winter rains also contribute to this inflow and infiltration which makes up a large percentage of winter or wet weather flows. capacity difference between the dry weather and wet weather flows.

The District's comments on the Project during circulation of the Notice of Preparation requested that the Project's wastewater system be evaluated using the District's hydraulic model to evaluate actual capacity. The Southeast Collection System Network Hydraulic Model consists of a computer-generated analysis of system capacity under dry and wet weather flow scenarios. The model shows the performance characteristics of the existing wastewater collection system through the assessment of available capacities, potential impacts from future development and the probabilities of inflow and infiltration related issues.[29]

Subsequent development within the Project site will be subject to development review in accordance with the Development Manual (see Appendix C). The District's policy is to require a hydraulic model when development is proposed that exceeds an equivalent wastewater discharge of 20 single-family dwelling units.[30] To assure adequate capacity in the wastewater system, Section 2.7 of the Development Manual states:

> In accordance with Lake County Special Districts Capacity Analysis/Hydraulic Model Policy, prior to building permit issuance for subsequent development that

[29] Lake County Special Districts Sewer Sanitary Sewer Master Plan, for the Southeast Regional Wastewater Collection System. Revised November 2022.

[30] Lake County Special Districts Administration, Capacity Analysis/Hydraulic Model Policy, May 26, 2011 from website on June 26, 2025, at https://www.lakecountyca.gov/DocumentCenter/View/4115/Capacity-Analysis-Hydraulic-Model-Policy-PDF?bidId=

exceeds the District's threshold for requiring a hydraulic model, applicants shall certify to the City that the model has been completed and that the District approves connection to the wastewater system.

The following analysis evaluates wastewater system capacity for the Sewer Plant and the Collection System at a broad level that demonstrates that the District's wastewater system that serves the City has adequate capacity for the Proposed Project.

Wastewater Treatment Plant Capacity

According to the District's 2022 Sanitary Sewer Management Plan, the Southeast Regional Wastewater Treatment Plant processes approximately 3.2 billion gallons of effluent annually.[31] The Plant currently has the capacity to treat 1.6 million gallons per day (mgd) (dry weather) and 4.1 mgd (wet weather). Based on California Engineering's Technical Memo on Infrastructure Support, the Proposed Project is expected to generate 101,185 mgd (dry weather flow) and 122,565 mgd (wet weather flow). After accounting for the Proposed Project, the wastewater treatment plant would retain approximately 1.5 mgd (dry weather flow) and 3.9 mgd (wet weather flow) of remaining capacity. Consequently, the treatment plant has sufficient capacity to meet the Project's demands.

Collection System Capacity

In April of 2006, a Build-Out Analysis of Lake County Water and Wastewater systems was completed. This system wide analysis provides a tool for long-range planning through estimating future growth in customer demands and preparing system master plans and a capital improvement program to accommodate growth. For wastewater infrastructure, customer growth appears as the rate of growth in service area populations and the location of growth as allowed under County or City land-use regulations. This information is compared to existing facility capacities to identify needed upgrades and expansions which are assembled into the Districts' Capital Improvement Program (CIP).

Accordingly, the 2022 District's Sanitary Sewer Management Plan determined that the service area has a potential capacity of 14,641 connections; over 19,000 equivalent dwelling units or collection or about 4 mgd. Lake County Sanitation District Wastewater System Rules and Regulations indicate that an equivalent dwelling unit consists of 210 gallons of effluent per day.[32] The system currently serves 6,228 service connections, which is same as 8,094 equivalent dwelling units or collection of about 1.7 million gallons of effluent per day (with a remaining capacity of about 2.3 million gallons per day). According to California Engineering calculations the Proposed Project would result in about 517 equivalent dwelling units or approximately 108,570 gallons of effluent per day (dry weather flow) and 122,565 gallons of effluent per day (wet weather flow). After accounting for the Project, the wastewater collection system would retain approximately more than 2 million gallons

[31] Lake County Special Districts Sanitary Sewer Master Plan for the Southeast Regional Wastewater Collection System, Revised November 2022.

[32] Lake County Special Districts, Lake County Sanitation District Wastewater System Rules and Regulations, accessed from the Lake County Special Districts Website. Accessed on June 26, 2025, at https://www.lakecountyca.gov/DocumentCenter/View/3913/Lake-County-Sanitation-District-LACOSAN-Rule-Book-PDF

of capacity for (dry or wet weather flows). Consequently, the collection system has sufficient capacity to meet the project's demands.

In June of 2009 the SE Regional Wastewater Collection System Interim Master Plan was Completed (part of the Lake County Special Districts Sanitary Sewer Master Plan for the Southeast Regional Wastewater Collection System). The Plan defines the current collection system capacity, estimates future flows, and determine and plan for future capacity expansion in key problem areas to accommodate existing and future growth. The Plan defines the treatment capacity of the plant, estimates future flows and loads under three population growth scenarios (1%, 3%, and 5%) and outlines a plan for future capacity expansion to accommodate actual population growth.

As referenced in California Engineering's Technical Memo on Infrastructure Support for the Project, the existing collection system would not require significant upgrades to meet the Proposed Project's wastewater demands. However, it is expected that the overall system, including the wastewater treatment plant, would require minimum upgrades to address planned growth from land uses planning from the County and City General Plans. These improvements to the wastewater system have been anticipated and are partially financed through connection fees. Connection fees for the Clearlake area are $10,072.71 per equivalent single family dwelling unit (updated July 1, 2013, and subject to change).[33]

General Plan Evaluation

The Project, which includes more residential development than contemplated under the General Plan build-out scenario, is consistent with many Land Use and Housing Element policies and programs to promote the development mixed use development and more housing in Clearlake but was not evaluated in the General Plan EIR.

Conclusion

This EIR evaluates wastewater facilities and services that would be provided by Lake County Special Districts and determines that that there is adequate existing and planned capacity to serve the project. Therefore, the Project would have a ***less than significant*** impact on wastewater services and facilities.

Mitigation Measure(s)

None required.

[33] Lake County Special Districts Website, Rates and Fees, accessed June 26, 2025 at: https://www.lakecountyca.gov/1103/Rates.

4.12-4 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years (*Less than Significant*)

The majority of the project site is within the service area of Highlands Municipal Water Company (HMWC), while the northern portion of the project site is within the Konocti County Water District (KCWD) service area (see Figure 4.12-3). Both treated water service providers obtain water from Clear Lake, a surface water source.

The water use calculations in the Technical Memorandum EIR Support Water and Sewer, City of Clearlake, by California Engineering, estimates that the Project, which includes development of a maximum of 436,500 square feet of non-residential building area and 250 multi-family units, would result in increased water consumption of 108,685 gallons per day (see Appendix K). The Water Supply Assessment for the City of Clearlake Airport Redevelopment Project, by NorthPoint Consultants, which consists of a capacity evaluation of water supply for the Project, indicates that based on these water use calculations, there is sufficient water supply during normal, dry, and multiple dry years to support the Project over a 20-year horizon.

The development would be served by a 10-inch diameter water main line through the center of the Project in a north-south direction. Service laterals for multiple properties would be looped back to the 10-inch main line and would be 8 inches in diameter, while lines that extend to single properties would be 6 inches diameter, with the exception of the medical center, which is anticipated to be 8 inches in diameter. All water mains would have valves, fire hydrants, meters, fire service connections, fire sprinkler connections and other necessary components per the requisite standard plans and specifications (refer to Figures 4.12-4 for detailed plans of the water delivery system).

General Plan Evaluation

Applying the same assumptions from the Technical Memorandum EIR Support Water and Sewer, City of Clearlake, by California Engineering (for non-residential development) applied to the General Plan Build-Out scenario for the same site, the General Plan Build-Out scenario would result in a water consumption rate of approximately 44,360 gallons per day, a reduction of 64,325 gallon per day, as compared to Proposed Project build-out.[34] This scenario consists of 535,000 square feet non-residential building area. Noted in the Project Water Use Calculations, the Proposed Project would use 108,685 gallons of water per day. Therefore, the Proposed Project would increase the amount of water use as compared to the General Plan Build-Out scenario, primarily due to the increased water use from residential development for the Project. Nonetheless, the Water Supply Assessment for the City of Clearlake Airport Redevelopment Project, by NorthPoint Consultants, indicates

[34] Calculation for the General Plan Build-Out scenario is 0.084 gallons per day per square foot of non-residential building area. 0.084 gallons per day x 535,000 sq-ft building area = 44,840 gallons.

that there is sufficient water supply during normal, dry, and multiple dry years to support the Project.

Conclusion

There would be sufficient water supplies available to serve the project and the reasonably foreseeable future during normal, dry and multiple dry years. Therefore, the Proposed Project would have ***less than significant*** impacts on water supplies.

Mitigation Measure(s)

None required.

4.12-5 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (*Less than Significant*)

The project at complete build out would generate about 6,040 pounds or about 2.5 tons of solid waste per day (based on about 12 pounds per 1,000 square feet of non-residential building area and based on about four pounds per day per dwelling unit.[35] The Eastlake Sanitary Landfill, which would serve this project was recently expanded to accept a maximum of 200 tons per day. The landfill has about 2,859,962 cubic yards of remaining capacity with anticipated closure in 2043. Landfill capacity was planned for growth in Lake County and took into account the City's General Plan growth rates.

General Plan Evaluation

The General Plan and General Plan EIR evaluated the project site to be a regional shopping center, which if developed on the 54-acre site, would generate an estimated 6,480 pounds per day or about 3.2 tons per day based on the same estimates from Cal Recycle. The Proposed Project would therefore result in less solid waste as compared to the General Plan build-out scenario.

Conclusion

Implementation of the Proposed Project would have ***less than significant*** impacts from generation of solid waste in excess of State or local standards or the capacity of local infrastructure.

Mitigation Measure(s)

None required.

[35] Cal Recycle, Estimated Solid Waste Generation Rates, accessed May 28, 2025.

4.12-6 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As noted in Impact Discussion 4.12-4 above, the Project would generate solid waste that would be disposed of at the Eastlake Sanitary Landfill, and this landfill complies with federal, state and local statues and regulations for solid waste management and reduction. The Project's Development Manual also includes provisions for installing solid waste receptacles and waste/recycling enclosures in compliance with the City's Zoning Code.

General Plan Evaluation

The General Plan EIR considered solid waste capacity for anticipated growth in the City of Clearlake. The Proposed Project is anticipated to generate solid waste that would not exceed existing and planned capacities for the Eastlake Sanitary Landfill.

Conclusion

Although the Project would generate solid waste that would be disposed of at the Eastlake Landfill, the generation rates have been anticipated and would be consistent with site development under the General Plan. Implementation of the Proposed Project would therefore have a ***less than significant*** impact related to federal, state, and local solid waste management regulations.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

Impact 4.12-7 Cumulative public services and utilities impacts related to the provision of new or physically altered governmental facilities (*Less than Cumulatively Considerable*)

Implementation of the Proposed Project cumulatively with other growth anticipated in the General Plan, the City or other entities may require the relocation or construction of new or expanded public facilities, such as fire, emergency services, police, schools, parks and other public facilities. However, these facilities have been planned to accommodate growth in the area as contemplated in the General Plan, and there are mechanisms to pay for these improvements through development impact fees, taxes, grants and other sources as identified in this section. These planned facilities are not considered to result in a substantial adverse physical impact to these facilities or services.

General Plan Evaluation

The Water Supply Assessment for the City of Clearlake Airport Redevelopment Project, by NorthPoint Consultants, shows that there is sufficient capacity for these services/facilities to meet the needs of the Proposed Project with respect to cumulative General Plan build-out and growth. Based on the analysis referenced in Section 4.12-3 above there is sufficient capacity in the wastewater system to meet the project's needs cumulatively with the growth anticipated under the General Plan. As analyzed in Section 4.12-4 above, there is sufficient solid waste capacity to serve the Project in addition to anticipated growth/development of the General Plan.

Conclusion

The Proposed Project is anticipated for the area, and cumulative public services and utilities impacts are considered in this EIR and found to be ***less than cumulatively considerable.***

Figure 4.12-1: Lake County Fire Protection District Boundaries

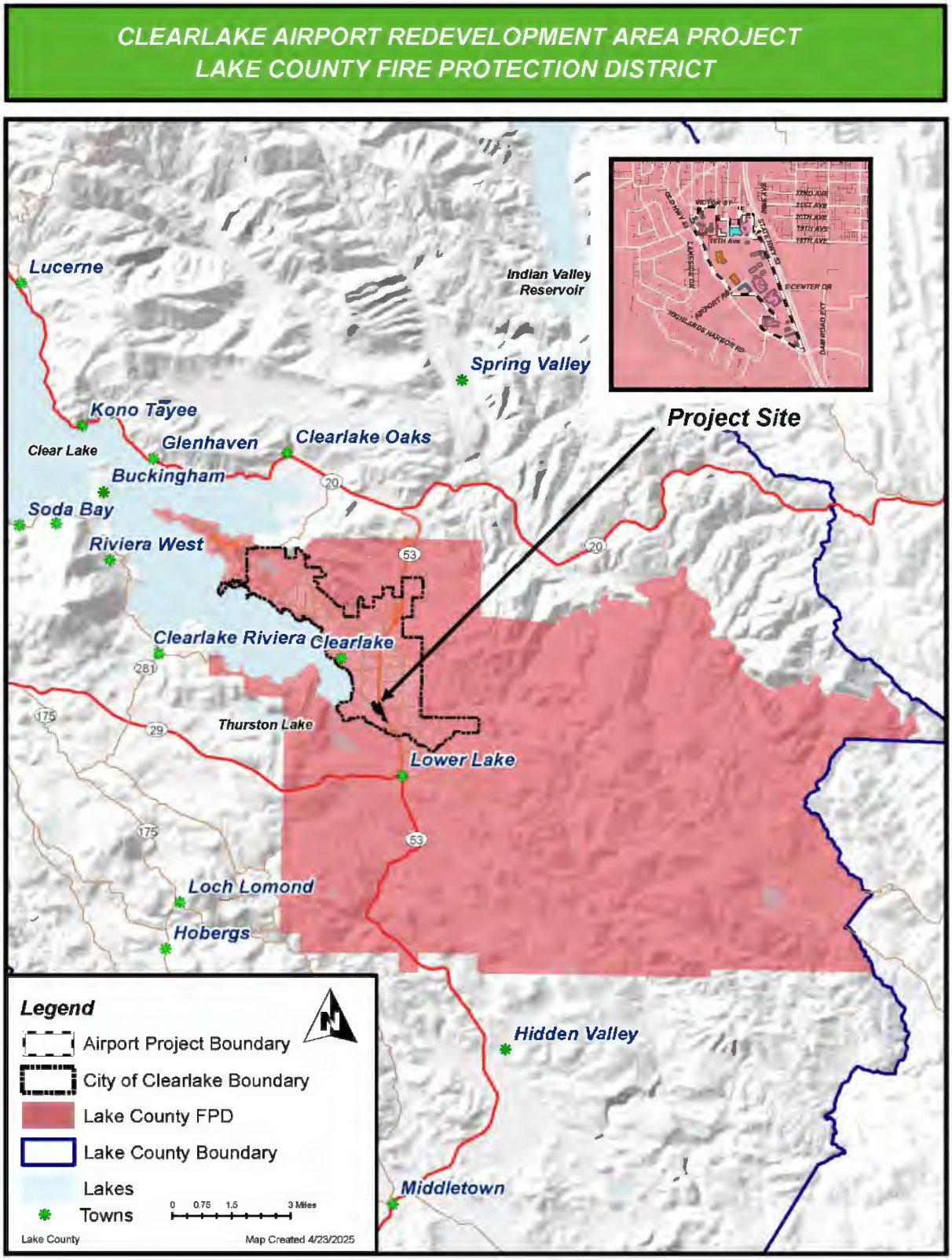


Figure 4.12-2: Water Service Providers on Clearlake

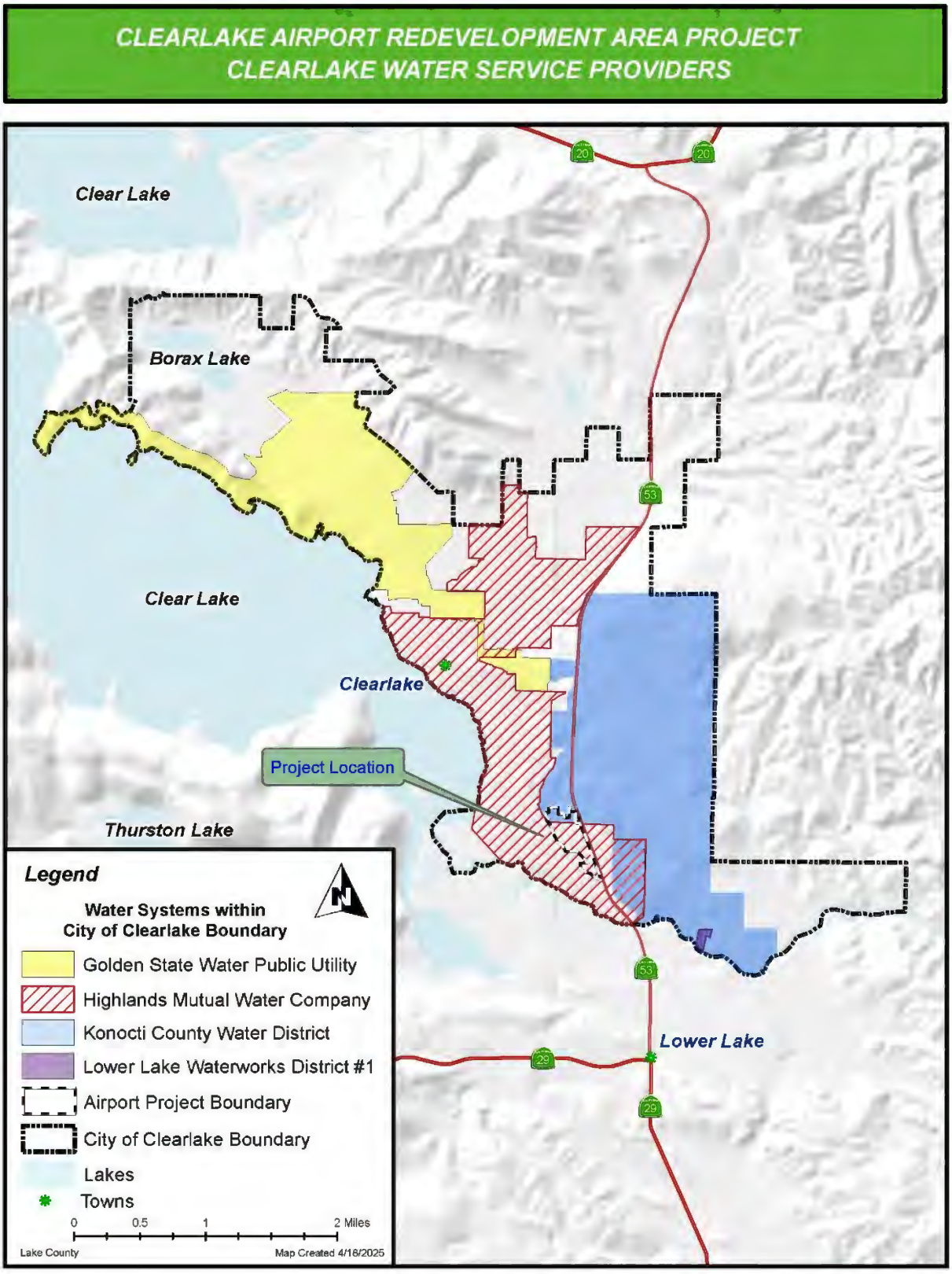
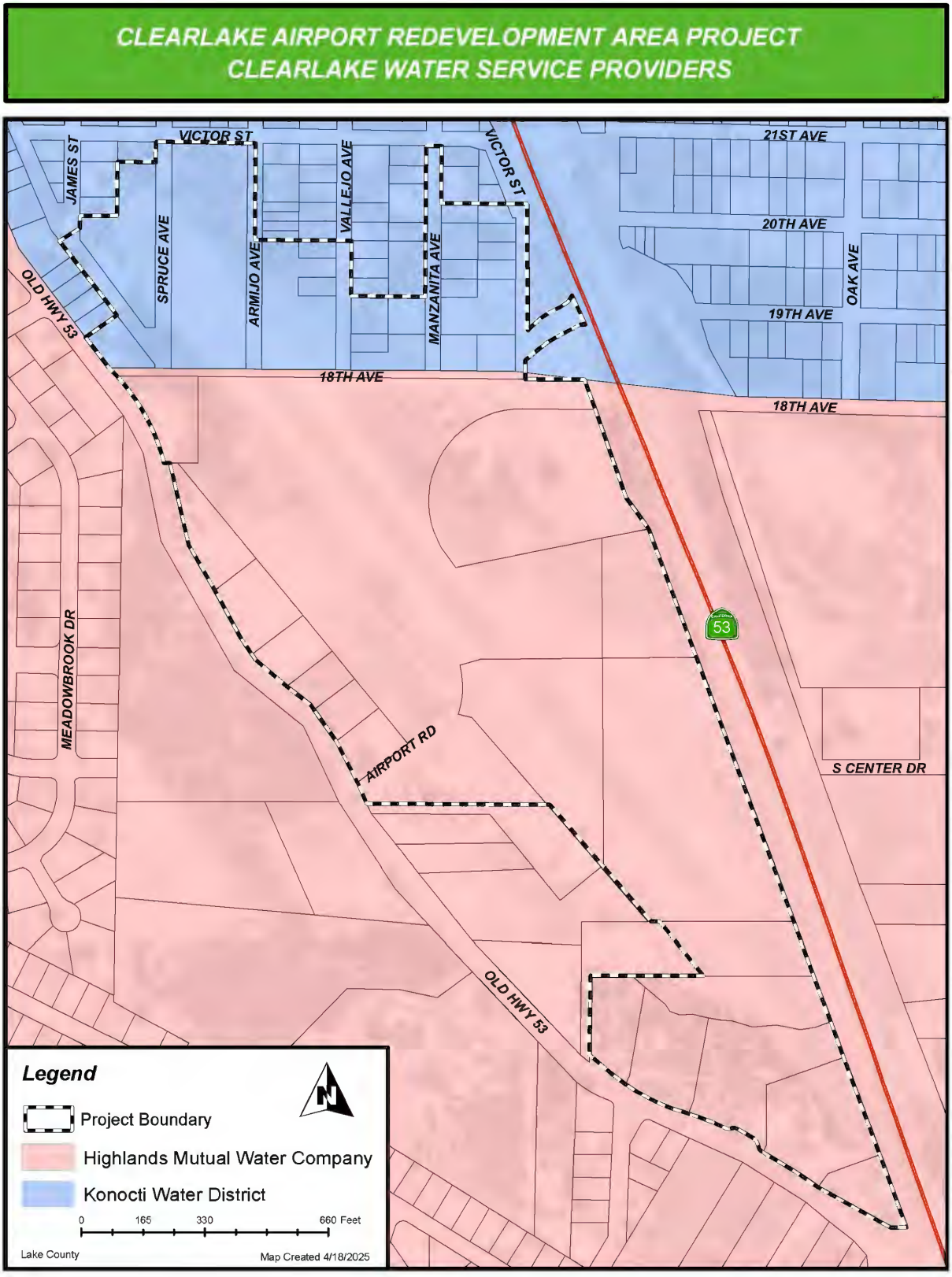


Figure 4.12-3: Water Service Providers



Figures 4.12-4: Project Water Service Facilities

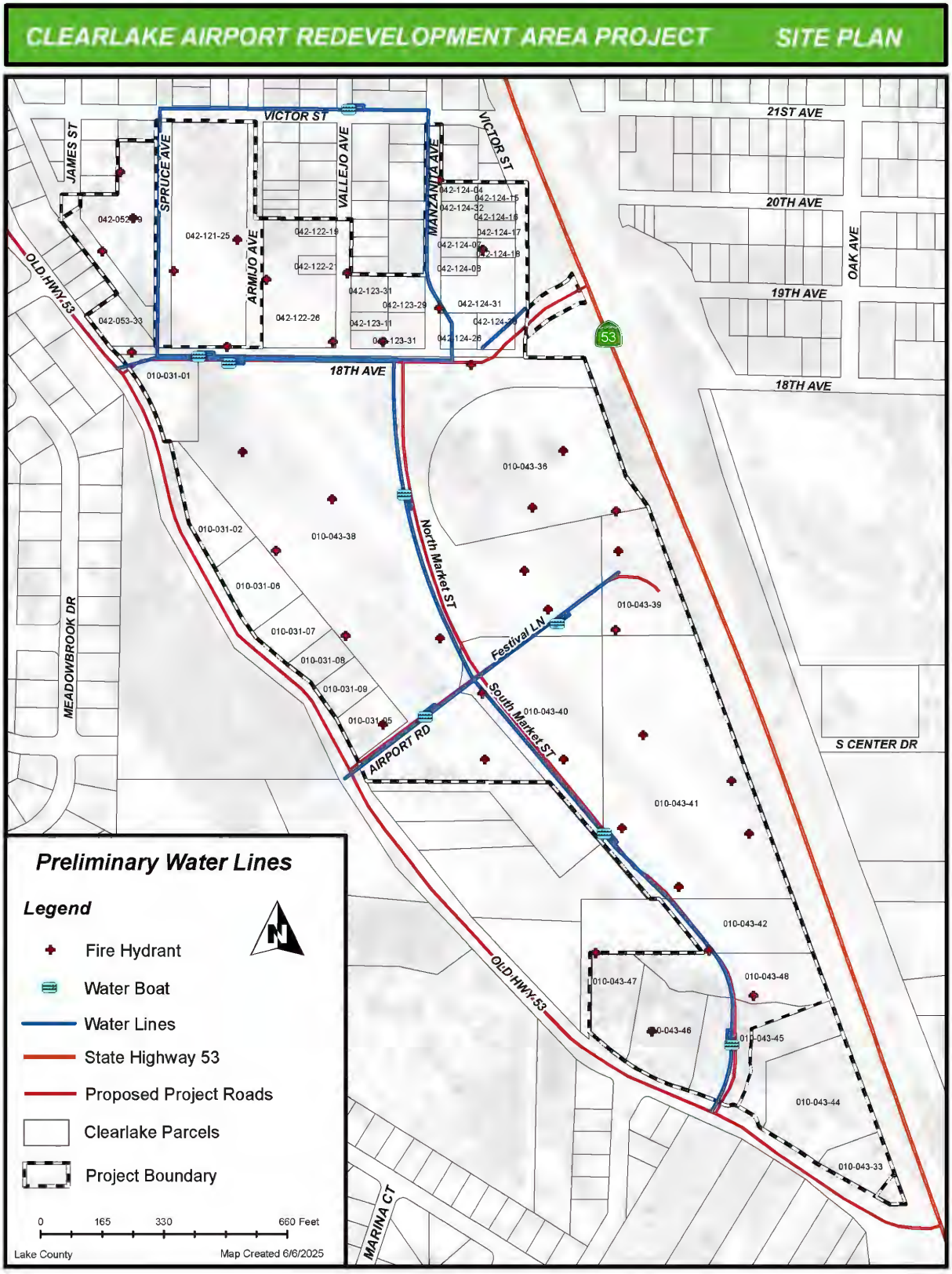
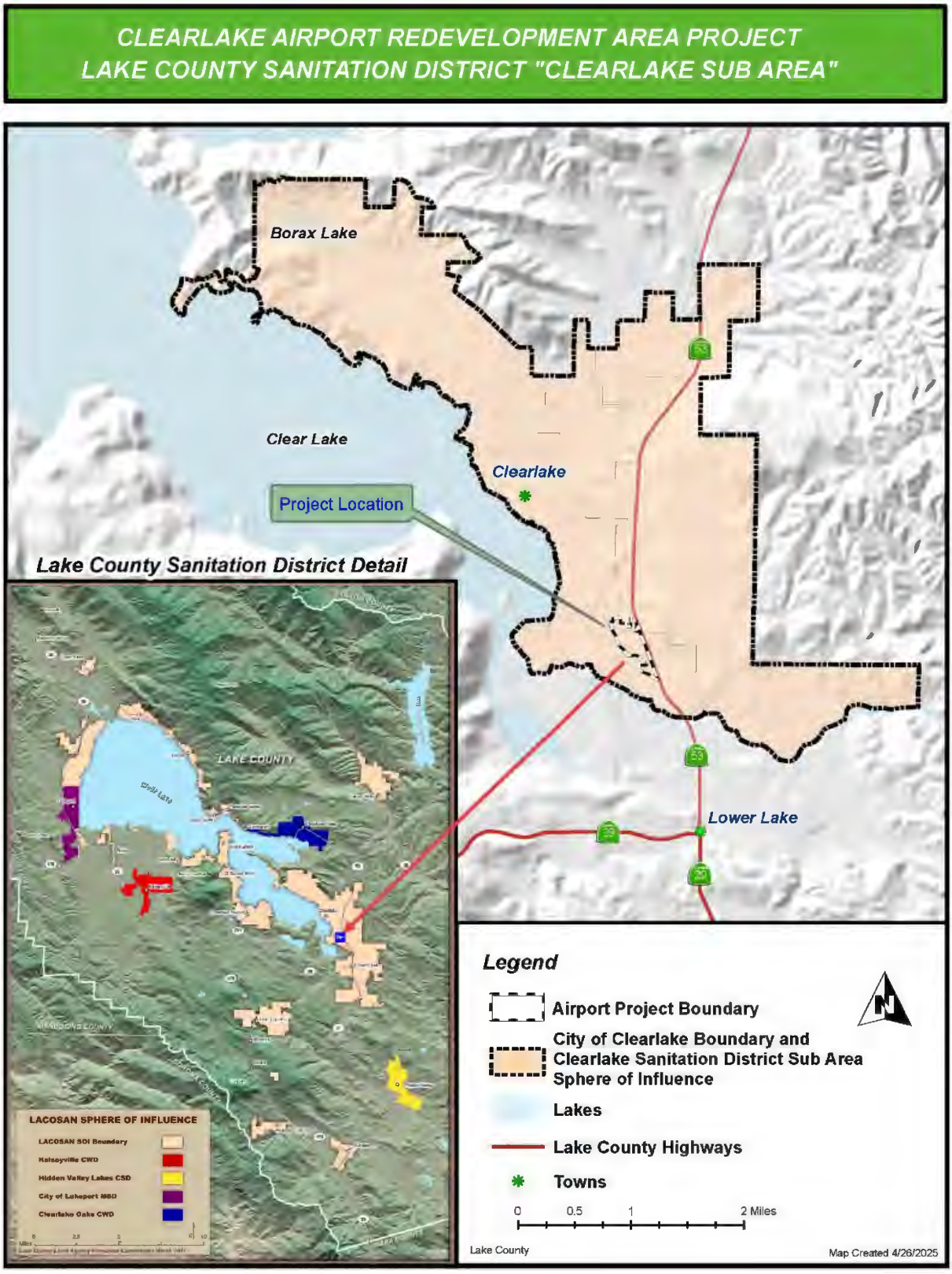


Figure 4.12-5: Lake County Sanitation District Boundaries



Figures 4.12-6: Project Sewer Service Facilities

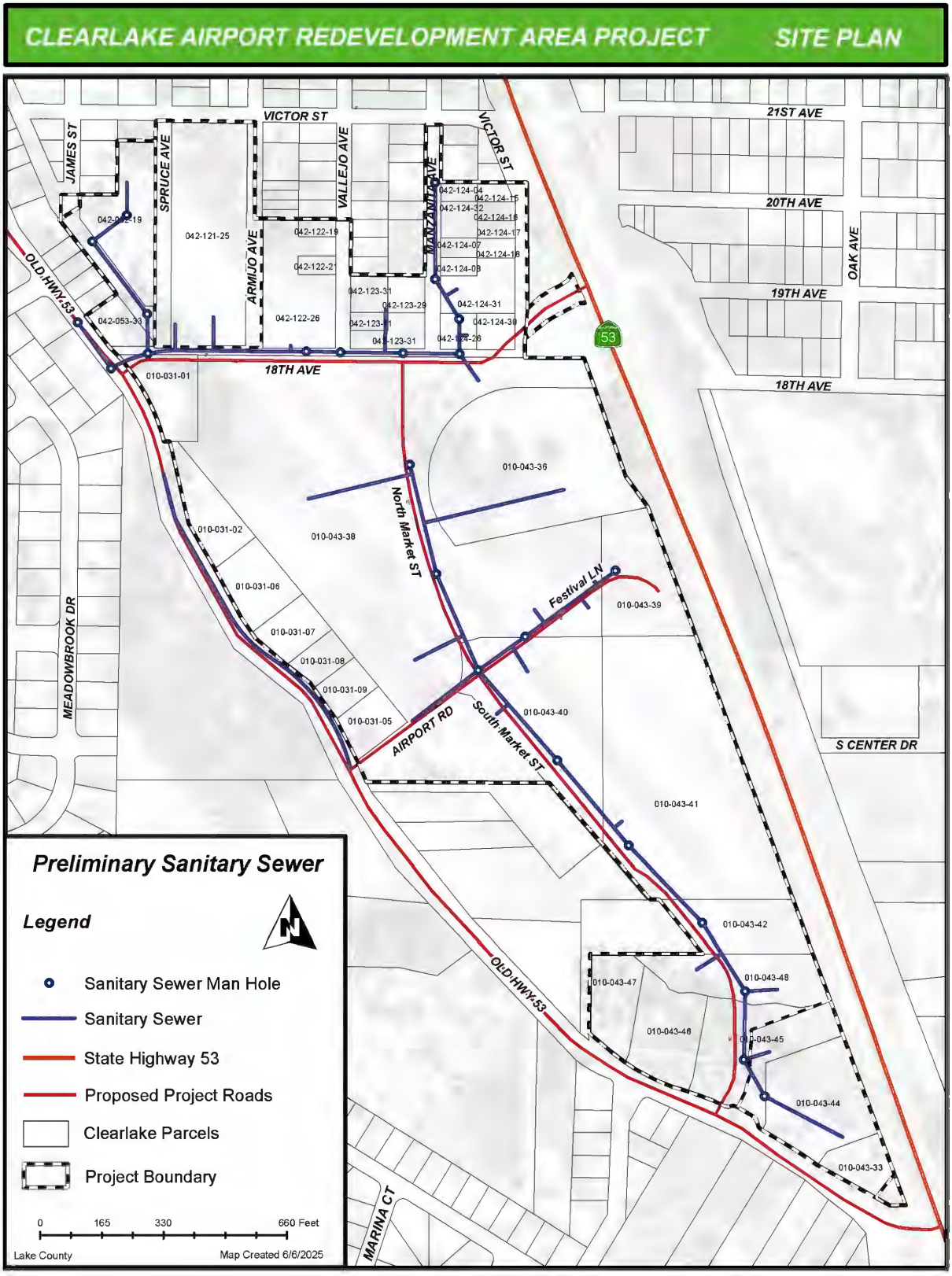


Figure 4.12-7: City's Drainage System

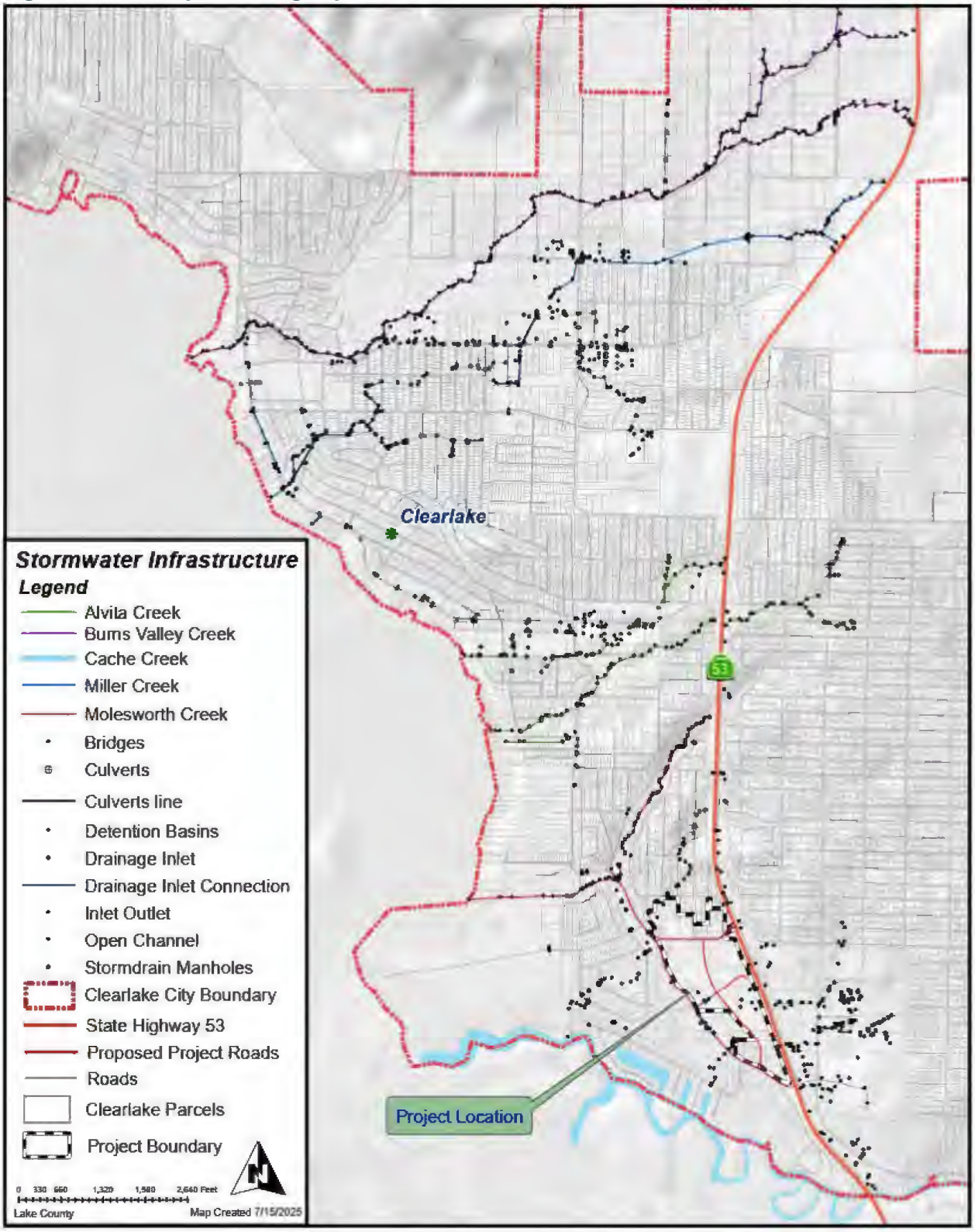
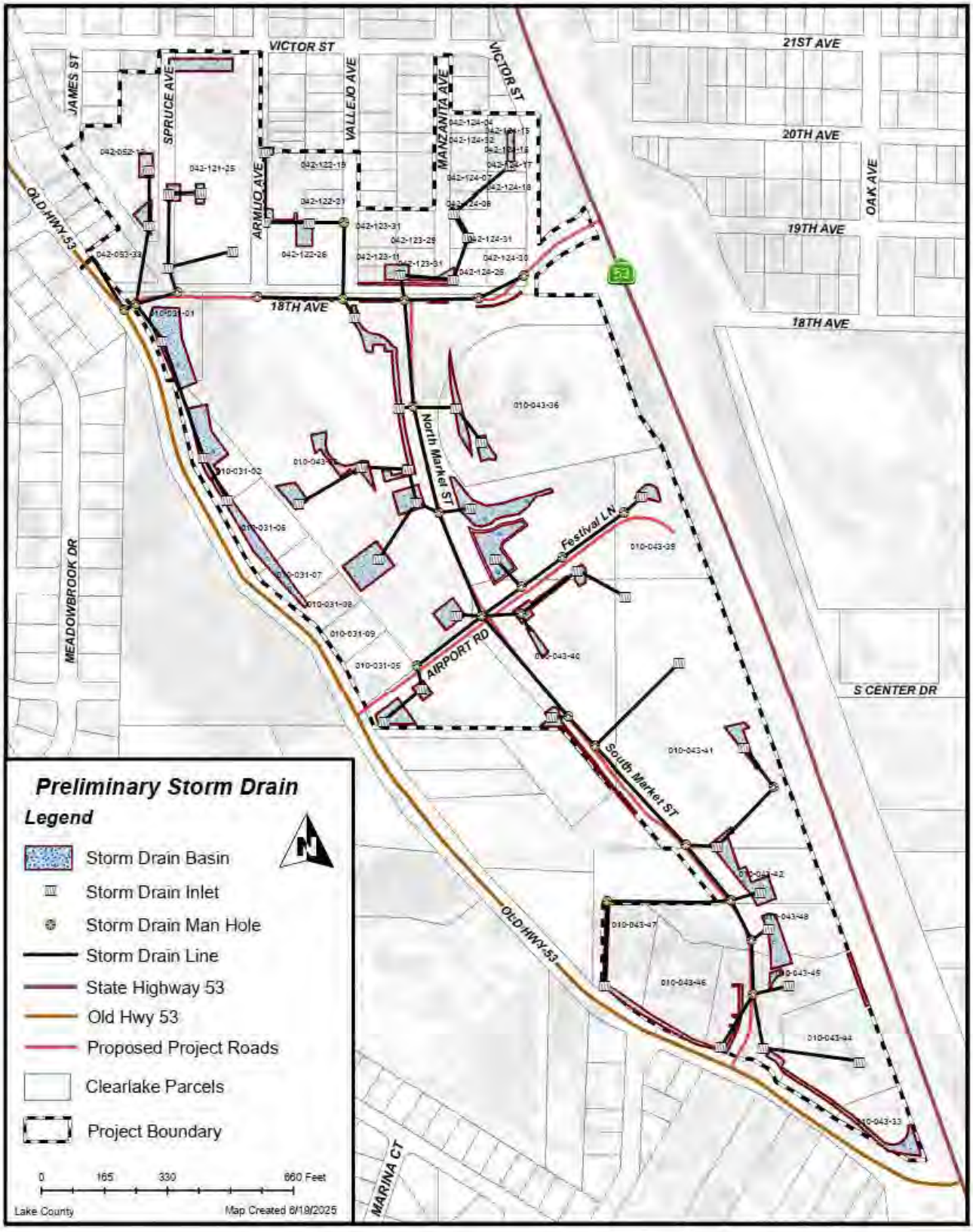


Figure 4.12-8 Project Storm Drainage System



4.13 TRANSPORTATION AND CIRCULATION

4.13.1 Introduction

This section describes the existing transportation system and regulatory setting in Clearlake for circulation and examines the CEQA-related transportation impacts associated with the Project. The Project varies from the General Plan land use scenario of building out the site with a commercial shopping center. The Project has similar land use characteristics with a large amount of non-residential development, but the Project introduces 250 dwelling units in a mixed-use scenario which may lead to changes that could potentially cause impacts to the circulation system. The purpose of this analysis is to identify the potential impact of traffic flow and determine if they should be considered significant impacts on the environment.

Much of the information in this section is derived from the following plans, reports and analyses:

- Clearlake General Plan 2040 (City of Clearlake, 2017)[1]
- Draft Environmental Impact Report for the Clearlake General Plan 2040 (City of Clearlake, 2017)[2]
- City of Clearlake General Plan 2040 Background Report (City of Clearlake, 2017)[3]
- Traffic Impact Study for the Clearlake Airport Area Commercial Project EIR (prepared by W-Trans for the City of Clearlake, 2025)[4]

During the NOP comment period for the EIR, many comments were received regarding public services, as follows:

> California Department of Transportation (Caltrans), Jesse Robertson, System Planning & Local Development Review, August 9, 2024. Requested more information on the City's proposal to construct a pedestrian bridge or over-crossing above State Route (SR) 53 between Dam Road and 18th Avenue, noting concerns for the potential safety impacts to bicycles and pedestrians from the anticipated increased exposure to vehicular traffic. Indicated that a separate facility for bicycles and pedestrians could reduce the potential for collisions. Indicated interest in how the bridge could be funded, who will maintain the bridge, and how the City plans to purchase land rights from Caltrans for construction of the bridge. Suggested that the EIR evaluate the bridge in order to streamline the project approval process and to improve funding eligibility for federal discretionary grants (the Project Site Plan shows the possible location of the pedestrian bridge). Indicated that the project could impact traffic safety at the intersections of State Route 53 and 18th Avenue

[1] City of Clearlake, *Clearlake General Plan 2040* (Clearlake, CA: City of Clearlake, 2017), accessed November 26th, 2025 at https://www.clearlake.ca.us/DocumentCenter/View/2502/General-Plan-2040..
[2] City of Clearlake, *Draft Environmental Impact Report for the Clearlake General Plan 2040* (Clearlake, CA: City of Clearlake, 2017), accessed November 26th, 2025 at https://www.clearlake.ca.us/DocumentCenter/View/2545/Clearlake-2040-General-Plan-EIR-Complete.
[3] City of Clearlake, *Clearlake General Plan 2040 Background Report* (Clearlake, CA: City of Clearlake, 2017).
[4] W-Trans, Traffic Impact Study for the Clearlake Airport Area Commercial Project EIR (prepared for the City of Clearlake, 2025).

and Dam Road and the possible need of safety improvements (see pages 14.13-19 through 14.13-21).

Highlands Mutual Water Company, Tina Wallis, Attorney, Frost, Brown Todd, August 17, 2024. Noted that the transportation impacts need to be assessed to determine what transportation improvements would be needed based on proposed land uses and related travel demand. Noted the General Plan EIR has questionable traffic assumptions based on planned land uses; that there may need to be additional circulation improvements made near State Route 53 and 18th Avenue and State Route 53 and Old State Route 53 (pp. 14.13-13 through 22, and Figures 14.13-9 and 14.13-10).

4.13.2 Existing Environmental Setting

The CEQA Guidelines indicate that an EIR must include a description of the physical environmental conditions in the vicinity of the project at the time the NOP was published as well as any inconsistencies between the proposed project and applicable general plans and regional plans.[5] & [6]

The Project would be constructed in the southwestern section of the City, where the General Plan calls for a regional shopping center to be developed. The project site is accessed by two main existing roadways, Highway 53 on the east and Old Highway 53 on the west. 18th Avenue, which has a signalized intersection at Highway 53, terminates at a dead end approximately 100 feet west of the intersection. The existing and currently planned roadway, transit, bicycle, and pedestrian transportation systems within the project site are described below.

Roadway Network

The General Plan Circulation Element and Map identify all streets according to a classification system that is consistent with national standards. This system also provides a framework for the planning of a city-wide/area-wide transportation system. Freeways and expressways fall under the jurisdiction of Caltrans and, hence, their construction standards are dictated by the policies and standards of Caltrans.

Additional definitions for the City's Street Classification System are summarized below:

- Expressways and/or Major Arterials: Have four lanes with restricted driveway access, but with a mix of grade-separated interchanges and at-grade intersections. State Route (SR) 53 is an Expressway (controlled and maintained by Caltrans) .
- Minor Arterials: Have two lanes that may be upgraded to an arterial in the future and usually limit on-street parking to maintain smooth flow. These include Lakeshore Drive, Olympic Drive, and Dam Road.
- Major Collectors: Have two lanes for carrying relatively low capacity at slower speeds and are used to connect neighborhoods, as well as arterials.

[5] California Natural Resources Agency, CEQA Guidelines, §15125(a).
[6] California Natural Resources Agency, CEQA Guidelines, §15125(d).

- Local Streets: Have two lanes that provide access for smaller residential subdivisions which are characteristic of low speed, low-capacity roads that provide direct access to adjacent land uses and are typically meant only for local, as opposed to through traffic. Most of the streets in Clearlake would qualify for this designation.

Regional access to the project site is provided by U.S. Interstate 5 (I-5), and SR 101, 20, 29 and 53. Roadway facilities that provide external linkages for the Project are as follows:

- SR 53: Located along the east border and with no direct driveway access to the project site, SR 53 is the main roadway leading through of Clearlake. It is a major road terminating at SR 20 in the north and SR 29 in the south. SR 53 has a four-lane section extending from SR 29 in the south to approximately 600 feet north of 40th Avenue. This highway has one existing connection into the Project site at the intersection of 18th Avenue and is designated as the only Expressway through Clearlake in the General Plan (see Figure 4.13-1, General Plan Circulation Map).
- Old Highway 53: Located along the west side of the Project site, with existing access to the Project via Airport Road, is a main road that connects the south portion of the City to the north. This road is designated as a Major Collector in the General Plan and has two lanes designed for carrying relatively low-capacity traffic at slower speeds. A Major Collector is used to connect neighborhoods, as well as arterials. This road ends at the south end of the project where there is a signalized intersection at SR 53 and Damn Road.
- 18th Avenue: Located to the northeast of the project site is currently a two-lane collector street with intermittent dirt shoulder providing access to Adventist Health-Redbud Hospital and several other streets serving the residential area east of SR 53.

Pedestrian and Bicycle Systems

There are currently no formal pedestrian or bicycle facilities on the project site.

Pedestrian Orientation: The General Plan Circulation Element encourages pedestrian circulation, the installation of curbs, gutters, and sidewalks where they do not currently exist, ramps at all street corners to provide easier access for wheelchairs, consistent with ADA requirements, and a need to provide trail connections between neighborhoods and regional trails. The Circulation Element includes classifications for bikeways and trails (see Figure 4.13-2, Bikeway Plan).

Lake County and the City have an interconnected trail system that links neighborhoods to larger walking trails. The Konocti Regional Trails Plan (KRTP), adopted by Lake County, provides a long-range plan to establish a network of trails throughout the county, including Clearlake, that serves a range of users such as road bicyclists, mountain bicyclists, hikers, pedestrians, boats, and swimmers. As referenced in the General Plan, the KRTP has been used as a guide to interconnect the regional trails to the City's trail system through the General Plan Trails Plan (see Figure 4.13-3, Trails Plan maps).

Bicycle Orientation: The City's existing and planned bicycle facilities are classified as follows (see Figure 4.13-4 which illustrates these classifications):

- Class I facilities are completely separated from streets, provide two-way bicycle travel, and are often shared with pedestrians.
- Class II facilities provide dedicated roadway space for bicyclists, separate from motor vehicle traffic and parking lanes. Bicycle lanes are designated using striping, pavement markings, and signs.
- Class III facilities are streets specifically designated for bicyclists to share with motor vehicle traffic and are designated using signs. Bicyclists ride in the travel lane with motorists or on the shoulder. Bicycle routes may include shared lane pavement markings or warning signage.

Bicyclists may ride on all local streets, regardless of whether they are designated a bicycle route, unless expressly prohibited. The bicycle system within the site vicinity consists of a wide paved shoulder (no formal bike lane) on SR 53 along the west side and on Old Highway 53 along the west side of the Project site.

Transit Systems

The main transit system in Clearlake is the public bus system operated by Lake Transit Authority (LTA). There are three regional bus routes, two of which are separate north and south shoreline routes that connect Clearlake to Lakeport, and one of which connects Deer Park to Napa County. The City is served by two local bus routes 5 and 6. LTA offers Clearlake Dial-A-Ride, which provides curb-to-curb service. LTA also offers "Flex Stop" service for passengers eligible for ADA paratransit service who reside in areas that are not served by Dial-a-Ride. Flex Stop services accommodate these travelers by traveling up to one off the regular bus route (see Figure 4.13-5 which depicts the various transit routes).

Proposed Access and Circulation

The Project is situated in the southwest section of town and bordered by Highway State Route 53 (SR 53) to east and south, Old Highway 53 to the west and south, and residential and vacant land to the north. The project site takes access via Airport Drive from Old Highway 53 by a three-way intersection driveway on the west side of the site and by 18th Avenue on the east side from a four-way signalized intersection at SR 53. The Project proposes extending 18th Avenue west from SR 53 to connect to Old Highway 53. A new driveway intersection is proposed on Old Highway 53 at the south end of the project to connect to a new internal street, Market Street. Market Street would connect to 18th Avenue traveling south to connect to Airport Drive and Old Highway 53 (see Figure 4.13-6).

The Project Development Manual (Appendix C) includes development guidelines for street design inside the Project with new streets illustrated in Figures 4.13-7 and -8.[7] It consists of three streets that connect to existing perimeter routes. Each new street has been designed to enhance the safety of the pedestrian and bicyclist experience by creating a system of separated walkways and bicycle lanes allowing for multiple modes of transportation. 18th Avenue provides a necessary connection through the site from SR-53 to the Old Highway.

[7] City of Clearlake, Airport Redevelopment Project Development Manual (Clearlake, CA: City of Clearlake, 2025.).

4.13.3 Regulatory Context

The following section outlines the legal, regulatory, and planning framework that governs transportation, circulation, and traffic analysis for the Project. Within the study area all streets, except for SR 53 (Caltrans) are under City of Clearlake's jurisdiction.

Federal

There are no Federal regulations related to this Project at this time.

State

State Senate Bill 743

Signed into law in 2013, Senate Bill 743 (SB 743) updated the way transportation impacts are measured in California for new development projects. In accordance with SB 743 and the resulting changes to the CEQA Guidelines published by the Natural Resources Agency, local agencies may no longer use measures of vehicle delay, such as Level of Service (LOS), to quantify transportation impacts on the environment. VMT has been codified in the CEQA Guidelines as the most appropriate measure for measuring transportation impacts under CEQA. This change went into effect statewide on July 1, 2020. The technical guidance published by the Governor's Office of Planning and Research (OPR) recommends that local jurisdictions determine the significance threshold for transportation impacts based on local conditions.

California Department of Transportation

Caltrans is responsible for the planning, design, construction, and maintenance of all interstate freeways and State routes, setting design standards for State roadways that local governments may use. Caltrans requirements for traffic impact studies are outlined in their Guide for the Preparation of Traffic Impact Studies, focusing on the review of impacts on State highway facilities such as freeway segments, on- and off-ramps, and signalized intersections.

In May 2020, Caltrans adopted the VMT-Focused Transportation Impact Study Guide (TISG) for compliance with SB 743, replacing the 2002 guide for traffic impact studies, directing lead agencies on local land use projects.[8] Caltrans TISG specifies that development projects meeting the screening criteria of the City's adopted VMT policy with a presumed less-than-significant VMT impact require justification for the exempt status, aligning with the City's VMT policy.

[8] California Department of Transportation (Caltrans), Transportation Impact Study Guide (TISG): VMT-Focused Guidance for SB 743 Implementation (adopted May 2020, accessed November 26th, 2025, at https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf.

As noted below, the City participated with other jurisdictions for consistent VMT policies and methodologies through the Lake Area Planning Council Senate Bill 743, Vehicle Miles Traveled Regional Baseline Study (or VMT RBS).[9]

Projects not meeting screening criteria must include a detailed VMT analysis in the DEIR, which should cover:

- VMT analysis according to the City's guidelines, indicating significant impact if automobile VMT per capita exceeds the threshold of significance based on city-wide or regional values for similar land use types. Mitigation for increasing VMT should be identified, if necessary, with measures enforceable through permit conditions, agreements, or legally-binding instruments under the City's control.
- A schematic illustration of walking, biking, and auto conditions at the project site and study area roadways.
- Evaluation of the project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities, and transit performance, including countermeasures and trade-offs from mitigating VMT increases. Access to pedestrian, bicycle, and transit facilities must be maintained.

Within the Project area, SR 53 is within Clearlake's city limits and is a Caltrans facility.

Regional Plans

Lake Area Planning Council

The Lake Area Planning Council (APC) is a joint powers agreement among Lake County and the cities of Clearlake and Lakeport that also serves as the Congestion Management Agency. The APC oversees countywide transportation planning, programming of transportation funds, managing and providing transportation and transit programs and services, and delivering transportation projects. Countywide transportation planning documents relevant to the Project area include the Regional Transportation Improvement Program (2024),[10] the Regional Transportation Plan (RTP) Active Transportation Plan (ATP) (2022),[11] the Lake Transit Authority Bus Passenger Facilities Plan (2019),[12] and the Lake County Regional Bikeway Plan (2011).[13]

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[9] Lake Area Planning Council, Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study (Lake County, CA: Fehr & Peers for Lake Area Planning Council, 2020), accessed on November 26th, 2025 at https://www.lake-apc.org/wp-content/uploads/2020/12/SB743-VMT-Baseline-Study-FINAL.pdf .

[10] Lake Area Planning Council, *Regional Transportation Improvement Program* (Lakeport, CA: Lake Area Planning Council, 2024), accessed November 26th, at https://www.lakeapc.org/wp-content/uploads/2025/05/2024-RTIP-FINAL.pdf.

[11] Lake Area Planning Council, Regional Transportation Plan (RTP) and Active Transportation Plan (ATP) (Lakeport, CA: Lake Area Planning Council, 2022), accessed November 26th, 2025 at https://www.lakeapc.org/wp-content/uploads/2022/02/Final-2022-RTP-ATP-2-9-22.pdf.

[12] Lake Transit Authority, Bus Passenger Facilities Plan (Lakeport, CA: Lake Transit Authority, 2019), accessed November 26th, 2025 at https://www.lakeapc.org/wp-content/uploads/2020/01/Bus-Passenger-Facility-Plan-Rev-Final.pdf.

[13] Lake Area Planning Council, Lake County Regional Bikeway Plan (Lakeport, CA: Lake Area Planning Council, 2011), accessed November 26th, 2025 at https://www.lakeapc.org/wp-content/uploads/2018/06/Regional-Bikeway-Plan-2011.pdf.

CEQA addresses traffic impact based on a Vehicle Miles Travel (VMT) metric. The Lake Area Planning Council VMT RBS, cumulatively addresses VMT throughout Lake County based on growth forecasts from the City's General Plan as well as other planning documents. This study identifies overarching goals, objectives, and specific policies intended to guide transportation development projects.

Many of these policies apply to City transportation projects and not to individual land development projects, but those that may be relevant to the City's consideration of Proposed Project are provided below:

Regional Transportation Plan-Active Transportation Plan

Overarching Issues

Policy OI-1	Coordinate, support and encourage multi-modal regional planning activities in Lake County across jurisdictional boundaries.
Policy OI-1.2	Coordinate with local and State agencies on health, security and emergency response planning efforts. Work cooperatively with local, regional and State agencies to ensure effective emergency response efforts are well coordinated during natural disasters such as wildfire or flood events.
Policy OI-1.4	Evaluate individual projects with an eye for potential regionwide impacts when formulating, designing, and constructing transportation projects of various modes and at all levels.
Policy OI-1.5	Work with local jurisdictions to further housing goals of the region and to update and implement Regional Housing Needs Allocations (RHNA).
Objective OI-3	Reduce Greenhouse Gas emissions by promoting and facilitating transit use and increasing active transportation alternatives.
Policy OI-3.4	Support and facilitate the installation of electric vehicle charging stations for public use. Explore options for affordable, clean energy technology and programs.[14]

State Highway System

Goal SHS	State Highway System (SHS): Provide a safe, well-maintained and efficient State highway network that addresses regional and statewide mobility needs for people, goods and services.

[14] LAPC, RTP and ATP (2022). 26.

Objective SHS-1	Improve mobility on the State highway system throughout Lake County.[15]

Local Streets and Roads

Objective LSR-1	Local Streets and Roads (LSR): Maintain, rehabilitate and construct local streets and roads consistent with local and regional needs, city and County area plans, and policies and Complete Streets policies.
Policy LSR-2.2	Support establishment of traffic impact fees to construct new transportation facilities associated with new development.
Policy LSR-3.2	Coordinate with local agencies on security and emergency response planning efforts, including the identification of key evacuation and emergency access routes.[16]

Active Transportation

Objective AT-1	Facilitate and promote walking, bicycling and other active modes of transportation.
Policy AT-2.4	Encourage VMT reducing mitigation measures for discretionary development projects at the local and State level.[17]

Public Transit

Objective PT-3	Provide a safe and accessible transit system.
Policy PT-3.3	Consider the impacts of new development (residential and commercial) on the transit system and identify appropriate mitigation measures to be incorporated into the proposed development.
Policy PT-3.6	Improve connectivity between transit facilities, pedestrian facilities and bicycle facilities.[18]

Aviation

Policy AV-3.1	Develop plans and support projects that are consistent with the County Office of Emergency Services (OES) response and recovery plans.[19]

[15] LAPC, 44.
[16] Ibid., 61.
[17] Ibid., 92.
[18] Ibid.,117.
[19] Ibid., 144.

Local Plans

City of Clearlake 2040 General Plan

The General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses.

The following are applicable policies and programs related to transportation, traffic, and circulation from the Transportation Element of the General Plan.

Community Design

Policy CD 2.1.1	The City should require developers to pay for a fair share of sidewalk infrastructure improvements.
Program CD 2.1.1.1	The City shall amend requirements for new development to include pedestrian and bicycle circulation mitigation measures.
Program CD 2.2.1.1	The City shall consider planning for and developing pedestrian improvements within designated commercial centers, such as sidewalk connectivity between businesses particularly in the downtown.[20]

Circulation

Policy CI 1.1.1	Maintain roadways and circulation improvements to ensure safe, energy efficient, and convenient daily travel for pedestrians, bicyclists, transit users and drivers as Clearlake grows.
Program CI 1.1.1.1	In accordance with the Complete Streets Act, new development shall construct and dedicate streets that accommodate the full range of locally available travel modes.
Program CI 1.1.2.3	The City shall support increased connectivity of parallel local roads to State Route 53, allowing more local trips to take place on local streets, and reducing the need for local motorized and non-motorized traffic to utilize the state highway.
Program CI 1.1.5.1	The functional classification of streets will identify street purpose and the standards of improvement necessary to accommodate anticipated traffic demand.
Policy CI 1.2.1	In accordance with the Complete Streets Act, the City shall require new development and major roadway projects to accommodate multi-mode transportation users.

[20] City of Clearlake, *Clearlake General Plan 2040,* 170.

Program CI 1.3.1.3	The City should provide safe and attractive way-finding signs for the community as well as visitors and tourists who may not be familiar with the City.
Program CI 1.3.2.3	The City shall strive to provide for smooth traffic flow and a compact urban pattern to maximize efficient movement between residential, commercial, and public areas.
Program CI 2.1.1.1	The City shall encourage the use of shared parking facilities (parking shared between properties and businesses) and allow all development, especially those on small lots, to participate in lieu of individual parking space requirements particularly in the downtown.
Policy CI 1.2.2	Provide parking in a way that balances the needs of motorists, pedestrians, bicyclists, transit users and community aesthetics.
Policy CI 1.3.1	The City shall adopt safety standards for road crossings and roadway sections.
Program CI 1.3.3.2	The City shall identify primary emergency vehicle routes and links between the medical facilities, fire, and police stations.
Program CI 1.3.3.3	Design standards for local streets will provide adequate access for fire and police department services.
Program CI 3.5.2.2	New development should incorporate connected street and pedestrian/bicycle networks, with many connections between new and older neighborhoods and between neighborhood and commercial areas.
Program CI 3.5.3.1	The City shall coordinate with Caltrans District 1 and the Federal Highway Administration (FHWA) on improvement plans to State/Federal facilities within the City.
Program CI 3.5.3.2	The City will coordinate with Caltrans, the Lake County Air Pollution Control District, and the Lake Area Planning Council to minimize air quality and transportation impacts associated with planned and existing transportation facilities.
Policy CI 4.1.1	The City shall require sidewalks in new developments.
Program CI 4.1.1.1	New development shall construct and dedicate and/or contribute to a connected bicycle/pedestrian network that is designed to promote travel to schools, parks, and other major destinations.

Program CI 4.1.2.1	New development shall construct and dedicate and/or contribute to a connected bicycle/pedestrian network that is designed to promote travel to schools, parks, and other major destinations.
Policy CI 4.1.3	Enhance bicycle opportunities throughout the City.[21]

Level of Service Methodology and the General Plan

Under the California Environmental Quality Act (CEQA), Senate Bill 743 (SB 743) mandated a shift away from using Level of Service (LOS) to measure significant environmental impacts of traffic. As of July 1, 2020, California jurisdictions are required to use Vehicle Miles Traveled (VMT) as the primary metric for evaluating transportation impacts under CEQA.

Nonetheless, the City's current General Plan references LOS as the standard to use to evaluate traffic impacts. Policy CI 1.3.4 of the General Plan Circulation Element and LOS standard to identify a traffic impact threshold of significance. This EIR does not further evaluate LOS. However, when the Project is reviewed by the Planning Commission and City Council, a separate evaluation of General Plan consistency would be conducted and evaluated outside this EIR.

City of Clearlake Development Impact Fee Program

In September 2020, the City Council adopted Ordinance No. 247-2020, an amendment to Chapter 3 of the Clearlake Municipal Code regarding Development Impact Fees, thereby enabling the City to assess impact fees for development in accordance with AB 1600.[22] The City also adopted Resolution 2020-40 adopting the City's development impact fee program for transportation impacts.[23] The fee program provides funding to help pay for transportation improvements identified in the General Plan and includes several projects that affect the Project, including the Airport Drive extension, the Dam Road extension and roundabout, and intersection improvements and striping at 18th Avenue and SR 53.

[21] City of Clearlake, 66.
[22] City of Clearlake, Ordinance No. 247-2020: An Ordinance Amending Chapter 3 of the Clearlake Municipal Code Regarding Development Impact Fees (Clearlake, CA: City of Clearlake, 2020), accessed November 26th, 2025 at https://clearlake.municipal.codes/enactments/Ord247-2020.
[23] City of Clearlake, Resolution 2020-40: A Resolution of the City Council Adopting the City's Development Impact Fee Program for Transportation Impacts (Clearlake, CA: City of Clearlake, 2020), accessed November 26th, 2025 at https://lakeconews.com/news/legals/66937-city-of-clearlake-ordinance-on-development-impact-fees.

4.13.4 Impacts and Mitigation Measures

The section below describes the standards of significance and methodology utilized to analyze and determine the Proposed Project's potential project-specific impacts related to land use. In addition, a discussion of the Project's impacts, as well as mitigation measures, where necessary, is also presented.

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the Proposed Project would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

Methodology

The baseline for reviewing environmental impacts and thresholds of significance for this EIR is with the site developed with a regional commercial shopping center as envisioned under the General Plan. Development of the 54-acre project site under the current General Plan could result in development of approximately 536,500 square feet of non-residential building area using the assumptions of the General Plan EIR. Full build-out of the project site, however, would be conducted over a long period of time, presumably beyond the 2040 General Plan time horizon.

Public Resources Code contains limitations on CEQA analysis for projects that are consistent with a general plan.[24] When an EIR has been certified for a general plan, the CEQA analysis of later projects can be limited to those significant effects that "are peculiar to the parcel or to the project" and that either were not addressed as significant effects in the plan's EIR or that new information shows will be more significant than when the plan's EIR was certified. The requirements of this option are detailed in the CEQA Guidelines for Streamlining for Infill Projects.[25]

Under the California Environmental Quality Act (CEQA), Senate Bill 743 (SB 743) mandates a shift away from using Level of Service (LOS) to measure significant environmental impacts of traffic. As of July 1, 2020, California jurisdictions are required to use Vehicle Miles Traveled (VMT) as the primary metric for evaluating transportation impacts under CEQA.

[24] California Public Resources Code §21083.3. accessed November 26th, 2025 at California Public Resources Code.
[25] California Natural Resources Agency, CEQA Guidelines (2025), §15183, 275.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project's particular impacts as compared to General Plan build out of the site. A Traffic Impact Study (TIS), prepared by W-Trans dated October 21, 2025, addresses the project's potential transportation and circulation impacts in accordance with CEQA (see Appendix L). The mitigation measures identified in the TIS would result in several improvements both on-site and off-site of the project and are described in Figures 4.13-9 4.13-10.

4.13-1 Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (Less Than Significant with Mitigation)

This discussion addresses the Project's consistency with local programs and regulations separately by pedestrian, bicycle, transit and roadway facilities.

Pedestrian, Bicycle and Roadway Facilities

There are no bicycle or pedestrian facilities within the study area under existing conditions. The Project does not conflict with any identified future pedestrian or cycling facilities; the proposed bicycle facilities as shown in the General Plan Circulation Element would be integrated into the site and the Project.

The Clearlake 2040 General Plan Update includes programs and policies which require the construction of pedestrian infrastructure in new developments. Program CI 4.1.2.1 indicates that new development should construct and dedicate and/or contribute to a connected bicycle and pedestrian network that is designed to promote travel to schools, parks, and other major destinations. Policy CI 4.1.1 states that the City shall require sidewalks in new developments and Policy CD 2.1.1 notes that the City should require developers to pay for a fair share of sidewalk infrastructure improvements.

The General Plan Circulation Element includes a Bikeway Plan (Figure 4.13-2) which shows that the project would enhance connectivity by adding new bicycle lanes throughout the project to increase connections to various existing and proposed bicycle paths. This is also the case with the Trails Plan (Figure 4.13-3) which shows existing and future planned trails in the City. In both bicycle and pedestrian aspects, the Project would not preclude access but would improve connectivity. Figure 4.13-6 indicates new roadways the Project would introduce and how they connect to other roadways. Figures 4.13-7 and 4,13-8 illustrate cross sections of project roadways that feature separated pedestrian walkways, and in some cases, separated bicycle lanes within the Project.

Class II bike lanes are proposed for the 18th Avenue extension, and a two-way bicycle path would parallel Market Street on the east side of the street. These improvements together with existing bicycle lanes on Old Highway 53, the planned facilities outlined in the County's Active Transportation plan, and the future bicycle and pedestrian overcrossing would provide adequate access for bicyclists.

18th Avenue is shown as a Minor Arterial in the Circulation Element. All other roadways in the project would be considered local streets. The Project is therefore clearly consistent with the General Plan relative to planned roadways.

Transit Facilities

Existing transit stops are within an acceptable walking distance of the site and would be reachable upon completion of the proposed pedestrian and bicycle improvements. The proposed Old Highway 53/18th Avenue Extension intersection conflicts with the location of an existing northbound Route 10 bus stop, so the bus stop would be relocated to the north leg of the new intersection. This improvement is indicated in the design plans for the new intersection.

Emergency Response

Emergency access and on-site circulation have been designed to facilitate efficient access for emergency response. This includes four primary access points from Highway 53 and Old Highway 53. If the existing hospital, located on the east side of Highway 53 opposite from the existing 18th Avenue site entry point, is relocated to the project site, access to the hospital would be from multiple access points.

General Plan Evaluation

Under the General Plan, development of the 54-acre site would result in a 535,000 square-foot commercial center, as compared to the Proposed Project which is a mixed-use center consisting of 436,500 square feet of non-residential building area and 250 residential units. Although the Proposed Project would result in less commercial development than the General Plan scenario, as provided under the General Plan Housing Element (encouraging more residential development) the Proposed Project includes mixed-use residential components that would reduce VMT as compared to the General Plan scenario (see section 4.13-2 below for more detailed discussion).

In both scenarios, either use can meet a program plan, ordinance, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Given the mixed-use nature of the project where patrons could potentially live, work, shop, and have their medical needs served all on the same site, along with its centralized location, the Proposed Project enhances General Plan recommendations to encourage mixed uses.

Conclusion

The TIS recommends a number of improvements (mitigation measures) to improve roadway, pedestrian, bicycle and roadway safety which is further discussed in 4.13-3 of this chapter. As noted in the transit facilities section, the existing northbound Route 10 bus stop would need to be relocated to the north leg of the intersection at Old Highway 53 and 18th Avenue.

With construction of the pedestrian facilities shown on the Project site plan and the TIS-recommended site plan (Figure 4.13-9) the Proposed Project would be consistent with City policies related to pedestrian facilities. These improvements would also enhance roadway, bicycle and pedestrian connectivity which also would improve consistency with plans, ordinances, and/or policies addressing the circulation system.

Based on the preceding analysis and including recommendations given from the TIS, implementation of the Project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and the impact would be ***less than significant with mitigation***.

Mitigation Measure(s)

Mitigation Measure 4.13-1 Simultaneous with the 18th Avenue extension, the northbound Route 10 bus stop shall be located to the north leg of the intersection at Old Highway 53 and 18th Avenue.

4.13-2 Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (VMT) (*Less than Significant*)

Senate Bill (SB) 743 established VMT as the metric to be applied in determining transportation impacts associated with development projects. As of the date of this analysis, the City of Clearlake has not yet adopted a policy or thresholds of significance regarding VMT so the Project-related VMT impacts were assessed based on guidance provided by the California Governor's Office of Planning and Research (or OPR; now called the Office of Land Use and Climate Innovation, or LCI) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, 2018,* as well as information contained within the VMT -RBS, prepared for the LAPC. Many of the recommendations in the RBS are consistent with the OPR Technical Advisory.[26]

Mixed-use projects may be evaluated against baseline studies for VMT based on analysis of the individual land uses proposed, or a single *dominant use*. Additional proposed uses associated with a project or complementing existing uses nearby have the effect of VMT *capture* (i.e., reduction). As *dominant use* is not yet clearly defined in the CEQA Guidelines, the Project is evaluated based on VMT associated with the individual uses proposed.

Residential VMT

VMT impacts associated with residents of the Proposed Project were assessed based on guidance contained in both the *Technical Advisory* and Lake County's RBS, which indicate that a residential project generating vehicle travel that is 15 or more percent below the existing average countywide VMT per capita may indicate a less than significant

[26] State of California Governor' s Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), accessed November 26th, 2025 at: https://lci.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

VMT impact. The Proposed Project includes significant residential development in combination with commercial and institutional uses.

Calculation for mixed-use under the Proposed Project reduces VMT as compared to calculation for commercial single use under the General Plan baseline. LCI encourages the use of screening maps to establish geographic areas that achieve the 15 percent below regional average thresholds, allowing jurisdictions to "screen" projects in those areas from quantitative VMT analysis since impacts can be presumed to be less than significant.

The tool estimates the Countywide average baseline VMT per resident in Lake County to be 27.1 miles per day. Therefore, a project generating a VMT that is 15 percent or more below this value, or 23.0 miles per employee or less per day, would have a less-than-significant VMT impact. The methods of the RBS and TIS calculate Project Residential VMT to be 19.3 miles per day, resultingly, the Project would be considered to have a less than significant impact on residential VMT.

Employee VMT

Like the residential uses, impacts associated with employee travel under the Proposed Project were assessed based on guidance contained in both the Technical Advisory and the County's RBS, which indicate that a project generating employee-based vehicle travel that is 15 or more percent below the existing average countywide VMT per worker may indicate a less-than-significant VMT impact. The VMT Index tool was again used to analyze VMT impacts associated with employee travel. The tool estimates the Countywide average baseline VMT per employee in Lake County to be 15.4 miles per day. Therefore, a project generating a VMT that is 15 percent or more below this value, or 13.1 miles per employee or less per day, would have a less-than-significant employee VMT impact.

Retail VMT

The OPR *Technical Advisory* indicates that retail projects should generally be analyzed by examining total VMT, with an increase in total regional VMT being considered a significant impact. The *Technical Advisory* also indicates that many retail uses may generally be presumed by lead agencies to have a less-than- significant VMT impact, especially smaller retail uses or those located where demand is currently underserved. OPR based this presumption on substantial evidence and research demonstrating that adding retail uses typically improves destination accessibility to customers. The theory behind this criterion is that many retail establishments do not necessarily add new trips to a region, but change where existing customers shop within the region, and often shorten trip lengths. OPR cites a size of 50,000 square feet or greater as being a potential indicator of regional-serving retail (versus local-serving) that would typically require a quantitative VMT analysis.

While the retail component of the project is greater than 50,000 square feet, consideration was given to the specific details of the project, including where customers currently must travel to shop at larger retail stores. There are limited existing retail outlets in Clearlake, and Lake County in general, meaning residents must leave the County and travel more than

one hour to Ukiah, Santa Rosa, or Napa to purchase certain goods. The provision of more retail establishments in Clearlake would reduce the number of interregional trips Lake County residents have to make to nearby counties, which would have a beneficial impact on reducing VMT, and therefore less-than significant impact on VMT.

Hotel Guest and Medical Patient VMT

The OPR *Technical Advisory* does not specifically address medical or visitor-based uses such as hotels, indicating that lead agencies may develop their own thresholds for such land use types and allowing assessment on a case-by-case basis. The proposed hotel requires consideration of the Project's intended visitor base and where those customers would otherwise have stayed if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, on its own it is unlikely to draw *new* visitors to the County; it would just redistribute where visitors stay.

This shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact since the total amount of shopping that occurs in a given geographic area tends to remain unchanged, and adding new retail uses to the urban fabric often reduces the distances (i.e., the "miles" in VMT) that people need to drive on shopping trips. The City of San Jose was an early adopter of VMT thresholds and has chosen to apply this methodology of treating lodging uses similarly to retail, where small- to mid-sized hotels and other lodging uses can be expected to shift travel patterns rather than generate new VMT and can generally be presumed to have a less-than-significant transportation-related VMT impact.

General Plan Evaluation

The General Plan EIR did not evaluate vehicle miles traveled (VMT) because VMT was not a CEQA transportation metric at the time of its preparation. As noted in the TIS, the Project site is located in a pre-screened, low-VMT area per the Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study for Lake County. This designation reflects the site's central location near the region's largest concentration of housing. Although VMT was not evaluated under the General Plan buildout scenario, that scenario assumes higher trip generation and longer trip lengths than the Proposed Project. Accordingly, the Proposed Project would be expected to generate substantially fewer VMT compared to the General Plan development scenario. Therefore, relative to the General Plan scenario, the Proposed Project would result in a less-than-significant VMT impact.

Conclusion

Based on the TIS and the RBS VMT Index, the Proposed Project would result in ***less-than-significant*** VMT impacts.

Mitigation Measure(s)
None.

4.13-3 Substantially increase hazards due to a geometric design feature or incompatible uses (Less Than Significant with Mitigation)

The TIS reviews the Project for impact safety impacts related to the adequacy of sight distance and need for turn lanes at the project site access points, as well as the adequacy of stacking space in dedicated turn lanes at the study intersections, to accommodate additional queuing due to the addition of project-generated trips.

Site Access

As shown on the site plan, the project site would be accessed via several new driveways and intersections on Old Highway 53 and the proposed extension of 18th Avenue. Internal circulation would include the new streets of North and South Market Street, Airport Road, and Festival Lane. These streets would provide access to several parking lots throughout the site via private driveways. On-street parking would be provided on Market Street, Airport Road, and Festival Lane.

Sight Distance

The TIS indicates that all unsignalized intersections need to maintain a clear line of sight between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. The TIS recommends adding left-turn lanes at Old Highway 53 at 18th Avenue Extension, Airport Road, and South Market Street and maintaining minimum sight lines of 330 feet for left turns and 285 feet for right turns at the intersection of 18th Avenue and North Market Street. Section 2.9 of the Development Manual shows these improvements (see Circulation Improvements CI-1 and CI-2); Figures 14.13-7 through Figure 14.13-10 also depict these improvements).

Lane Warrants

Left and right turn lanes are often required to avoid rear-end collisions by separating turning traffic from through-moving vehicles. The TIS conducts warrants for the project and recommended left-turn lanes on Old Highway 53 at the 18th Avenue Extension and South Market Street as well as right-turn lanes at Airport Road and South Market Street to minimize safety hazards. Section 2.9 of the Development Manual shows these improvements; Figures 4.13-7 through 4.13-10 also depict these improvements.

Queuing

Vehicle queuing is a line of stopped or slowed vehicles formed when the rate of vehicles wanting to use a road, intersection, or system exceeds the rate at which they can pass through it. Queues increase the potential for rear-end collisions. The TIS evaluates project queuing and recommends that an eastbound right-turn overlap phase be added at SR 53/Dam Road-Old Highway 53 extending 180 feet and the eastbound right-turn lane be extended to 205 feet to mitigate safety impacts. In addition, the study recommends a new

signal at Market Street and Old Highway 53 to reduce queuing back up from exiting vehicles from Market Street onto southbound Old Highway 53. As noted in the Project Description, and required in the Development Manual, signalization of this intersection would be completed and operational by the time of completion of 75 percent of the buildout within Commercial Zones PD2 and PD3 (see Figure 14.13-9).

Bicycle/Pedestrian Safety

The TIS examines pedestrian and bicycle safety impacts from the project. Two existing study intersections were reviewed at SR 53/18th Avenue and SR 53/Dam Road-Old Highway 53 intersections where there have been collision histories with pedestrians and bicycles. With comprehensive wayfinding signage directing pedestrians and bicyclists to the overcrossing over SR 53, the Project would mitigate the existing pedestrian safety issue by moving pedestrians out of conflict with high-speed traffic. Additional improvements to the Project to mitigate pedestrian safety impacts include new crosswalks at these intersections incorporating Leading Pedestrian Intervals (LPIs) at all existing crosswalks, consistent with Caltrans' policy for all new or modified traffic signals on state routes.

The Project would provide all streets internal to the project to be constructed with sidewalks and bike lanes. All stop-controlled minor street approaches at project intersections include marked crosswalks, all four legs of the all-way stop-controlled Market Street/Airport Road/Festival Lane intersection would have crosswalks, and several crossings of a street where traffic is uncontrolled are proposed on 18th Avenue, Old Highway 53, and Market Street. In addition to the crossings shown on the conceptual site plan, the TIS recommends installing a crosswalk on the southern leg of the proposed intersection of Old Highway 53 and the 18th Avenue Extension like what is proposed at Old Highway 53/South Market Street. This would provide a dedicated crossing opportunity for residents of the homes on the west side of Old Highway 53 when walking to and from the project site. To further improve pedestrian safety the TIS recommends shifting the pedestrian crossing on the east leg of the 18th Avenue/North Market Street intersection, midway between the intersection and the first set of driveways and combined with the crossing proposed on the west leg of the easternmost driveways. To mitigate pedestrian safety impacts, the TIS identifies the need to develop Rectangular Rapid Flashing Beacons (RRFBs) at all uncontrolled crossing locations.

For bicyclist safety, the TIS recommends installing sharrow markings or Class II bicycle lanes, striping bike lanes on the eastbound and westbound approaches at SR 53/18th Avenue and providing dashed green conflict markings through the intersection. Also recommended are extending the existing eastbound bike lane on Old Highway 53 to the intersection with SR 53 and transitioning it to the left side of the right-turn lane. The TIS further references the planned roundabout at the intersection of Dam Road/Dam Road Extension that would result in dedicated off-street bicycle access on Dam Road to the east of the intersection. To further minimize bicycle safety hazards, the TIS recommends extending this bicycle access to connect to the existing Class II bike lanes on Old Highway 53 on the west side of the intersection.

For pedestrian and bicycle safety improvements see Circulation Improvement CI-2 and CI-4 through CI-9 in the Development Manual. Also see Figures 14.13-9 and 14.13-10.

Impacts From Incompatible Uses

An example of an incompatible use that could impact the flow of traffic is siting housing or commercial development adjacent to agricultural uses, where farm equipment that uses roadways causes an incompatibility in traffic patterns. In the case of the Proposed Project, the project site is considered to be infill because surrounding existing and planned uses are similar to what the Project proposes. No significant agricultural or other incompatible uses would impact the flow of traffic in the area.

General Plan Evaluation

The Clearlake 2040 General Plan Update includes programs and policies which require the construction of pedestrian infrastructure in new developments. Program CI 4.1.2.1 indicates that new development should construct, dedicate, and/or contribute to a connected bicycle and pedestrian network designed to promote travel to schools, parks, and other major destinations. Policy CI 4.1.1 states that the City shall require sidewalks in new developments, and Policy CD 2.1.1 notes that the City should require developers to pay for a fair share of sidewalk infrastructure improvements. The Project would be consistent with these transportation policies and programs.

Conclusion

By incorporating recommendations and design criteria in the TIS and the Development Manual, the Proposed Project would implement and increase the number and type of pedestrian and bicycle safety improvements in the project site and vicinity.

Therefore, the Proposed Project would be expected to ***have a less-than-significant impact*** from increased hazards due to a geometric design (see Figure 14.13-9 that shows supplemental circulation improvements).

Mitigation Measure(s)

None.

4.13-4 Result in inadequate emergency access (Less Than Significant)

The project site would be accessed via several new intersections and driveways on Old Highway 53, a proposed extension of 18th Avenue, and the proposed new streets of North Market Street, South Market Street, Airport Road, and Festival Lane. The TIS indicates that the Project includes multiple options for access to the project site in an emergency. While the site plan is still preliminary, it is anticipated that all aspects of the site, including street and driveway widths and turning radii, would be designed in accordance with applicable standards; therefore, access would be expected to function acceptably for emergency response vehicles.

The TIS also indicates that even though the project would be expected to result in increased delays at nearby intersections, emergency response vehicles can claim the right-of-way by using their lights and sirens; therefore, the project would be expected to have a nominal effect on response times. The TIS states that the proposed extension of 18th Avenue to Old Highway 53 would be expected to shift some trips away from the SR 53 intersections with Lakeshore Drive and Dam Road, therefore, reducing delay at these intersections and potentially improving response times. The 18th Avenue extension would be a more direct route to homes on the west side of SR 53 south of Lakeshore Drive and north of Dam Road, improving response times to these dwellings. Locating emergency services such as a hospital located on the project site, would further enhance emergency services access as compared to the existing Adventist Health Hospital. Located across SR 53, the existing hospital has a single access, as compared to several access points at the new site.

General Plan Evaluation

The Clearlake 2040 General Plan Update includes programs and policies that address emergency access including Policy CI 1.3.1, adopting safety standards for road crossings and roadway sections, Program CI 1.3.3.2, identifying primary emergency vehicle routes and links between the medical facilities, fire, and police stations, and Program CI 1.3.3.3, providing design standards for local streets would provide adequate access for fire protection, policing and medical response. The General Plan EIR also indicates that all future roadways would be designed in compliance with City codes and regulations for ensuring adequate emergency access. The Project is consistent with the General Plan and General Plan EIR in that emergency access is not compromised, and all street, sidewalk, and related public improvements proposed for the Project would be consistent with these policies, programs, regulations and standards.

Conclusion

The Proposed Project would not substantially increase hazards due to inadequate emergency access, and the ***impact would be less than significant***.

Mitigation Measure(s)

None.

Cumulative Impacts and Mitigation Measures

4.13-5 In combination with other cumulative development, be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) regarding Vehicle Miles Traveled (Less than Significant)

The Proposed Project is located in an area previously evaluated by the LAPC VMT RBS, which screened the project site for VMT analysis. This EIR evaluated the project site under the General Plan development scenario as a regional shopping center. The Proposed Project would generate fewer vehicle trips, and therefore lower VMT, compared to the General Plan scenario. As a result, the Project would reduce VMT relative to the level previously anticipated.

According to the OPR *Technical Advisory on Evaluating Transportation /impacts in CEQA* (2019):

> "A project's cumulative impacts are based on an assessment of whether the 'incremental effects' of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.[27 & 28] When using an absolute VMT metric, i.e., total VMT (as recommended below for retail and transportation projects), analyzing the combined impacts for a cumulative impacts analysis may be appropriate. However, metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa."[29]

Conclusion

The TIS screens the Project for VMT using the efficiency-based method described in the SB 743 Regional Baseline Study and found to have a less-than-significant VMT impact for residential, employment, retail and other service-related VMT. Under the OPR Technical Advisory, an efficiency metric may be aggregated for cumulative analysis; therefore, a less-than-significant project-level VMT impact for individual land uses and services present would necessarily indicate a ***less-than-significant cumulative VMT impact***.

Mitigation Measure(s)

None.

[27] California Public Resources Code §21083(b)(2).
[28] CEQA Guidelines (2025), §15064, subd. (h)(1). 205.
[29] Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), 6.

Figure 4.13-1: General Plan Circulation Map

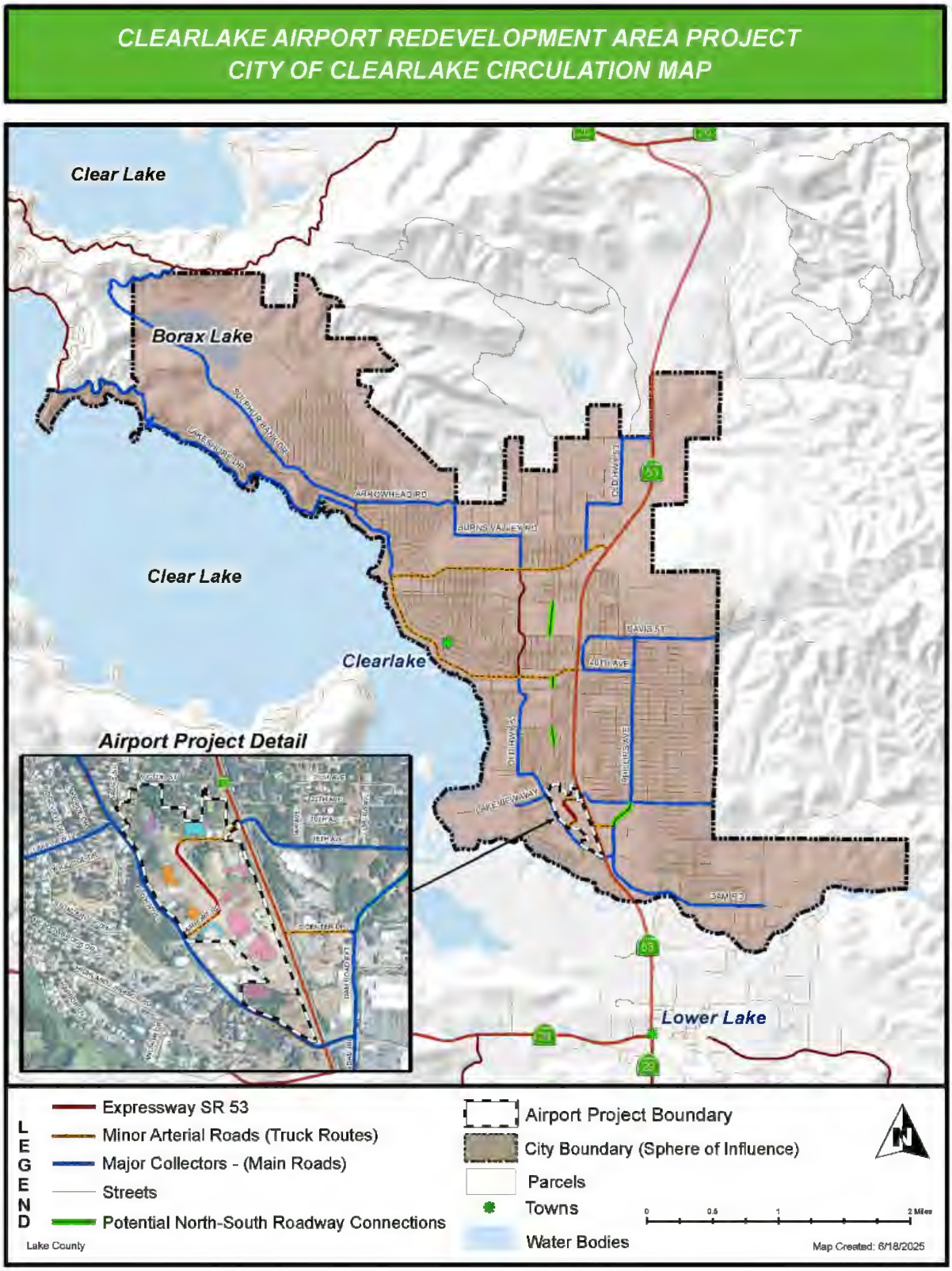


Figure 4.13-2: General Plan Bikeway Plan



Figure 4.13-3: General Plan Trails Plan

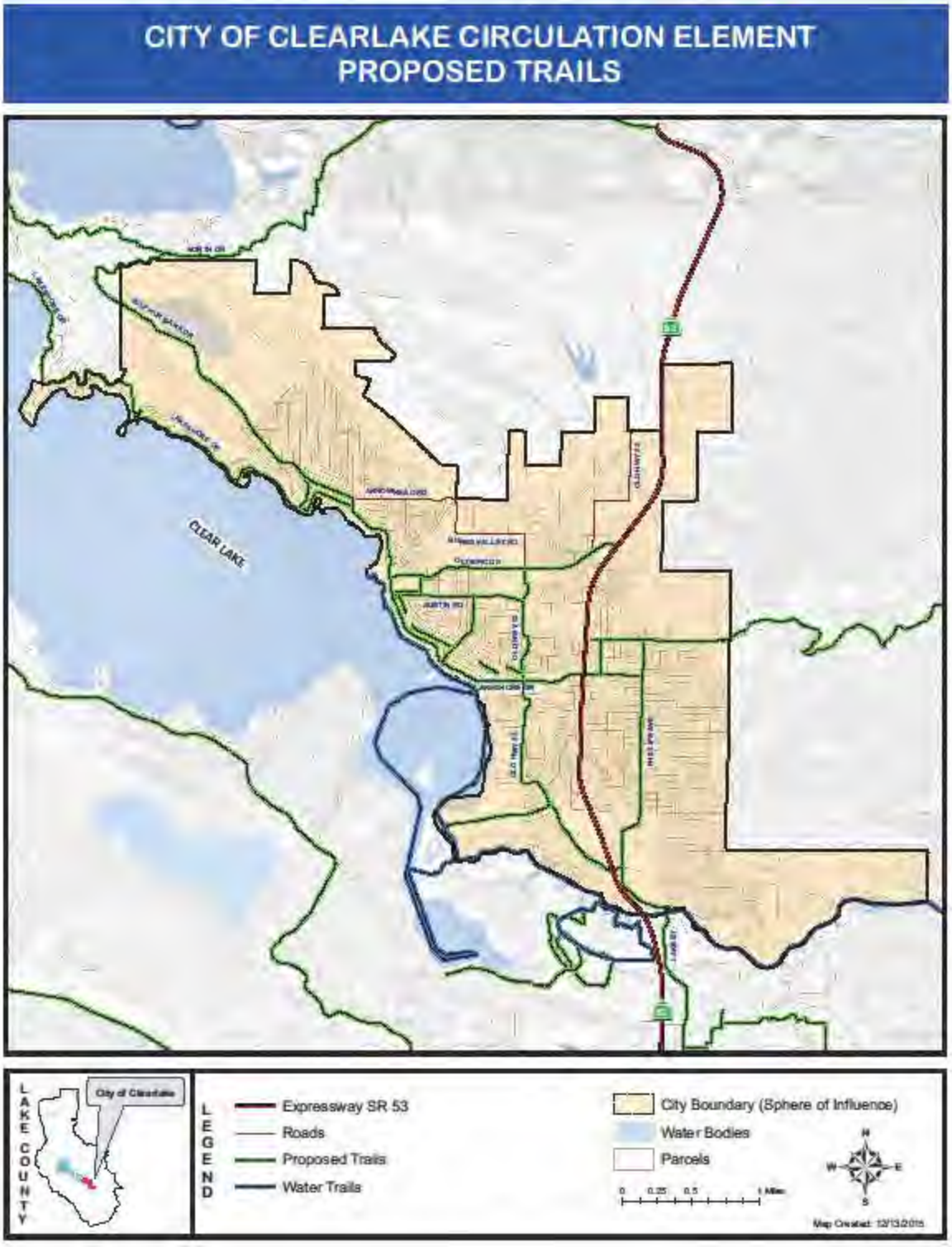


Figure 4.13-4: General Plan Bikeway Illustrations

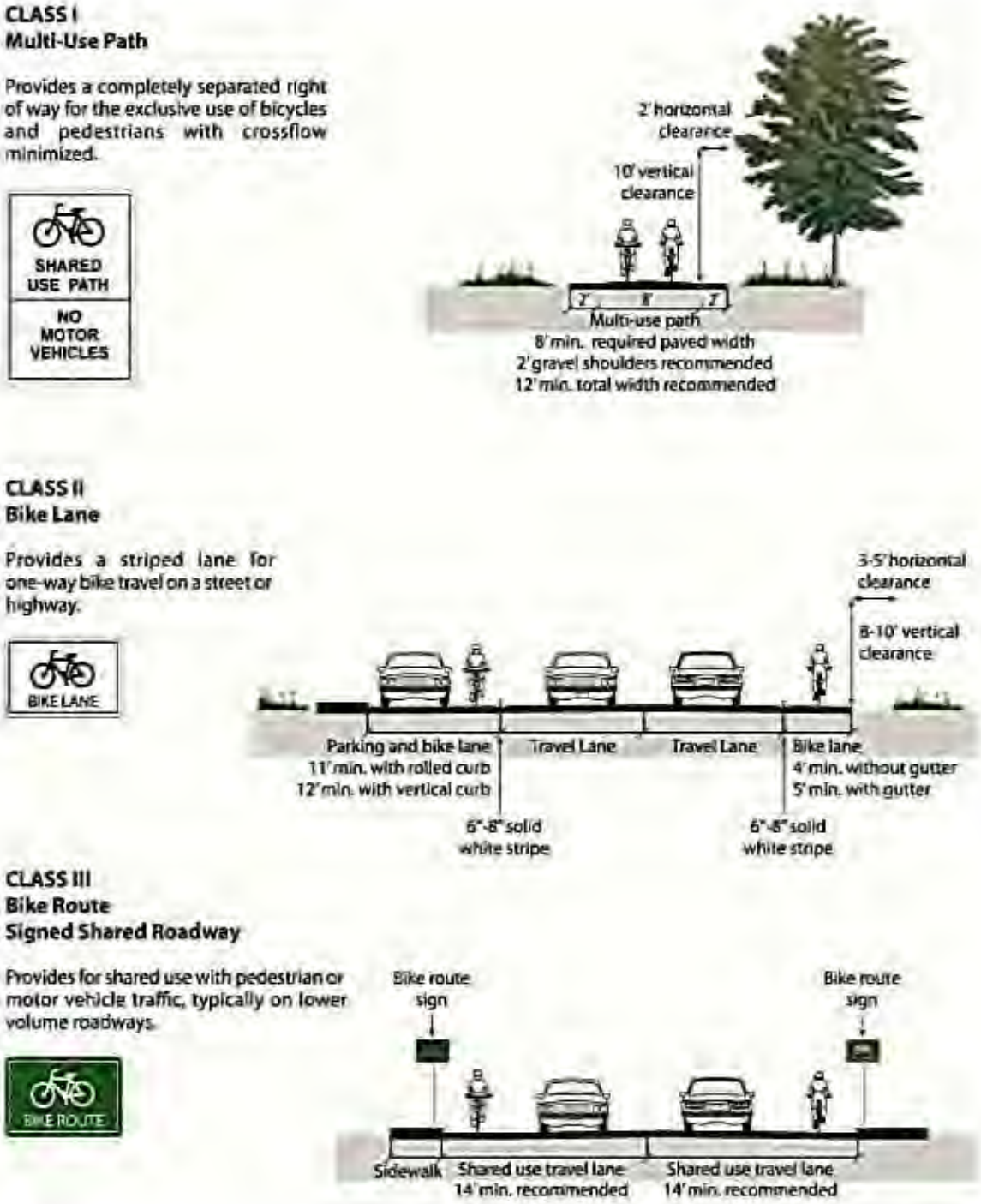


Figure 4.13-5: Transit Routes



Figure 4.13-6: Project Site Plan with Roads Improvements

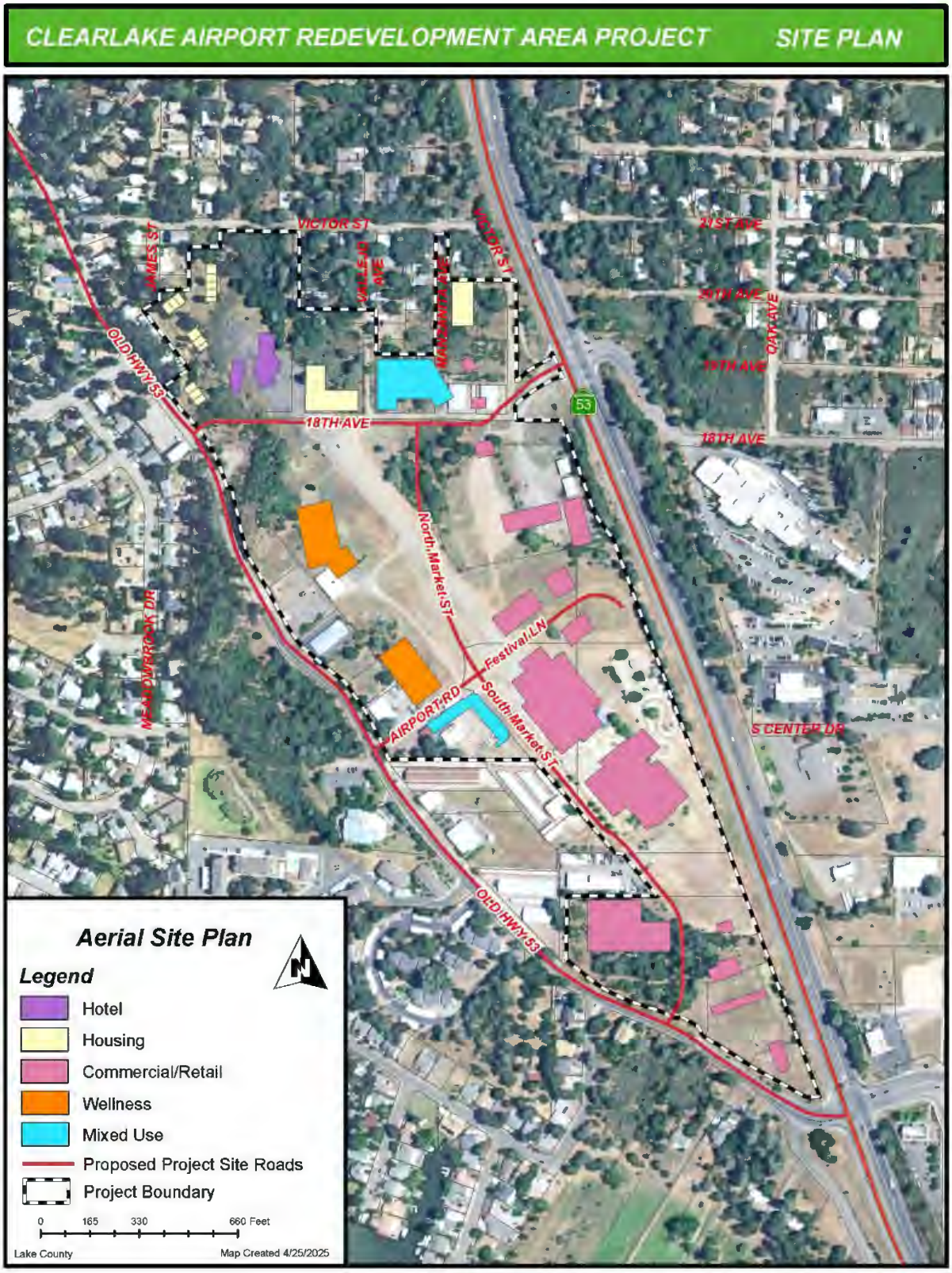


Figure 4.13-7: Project Street Design Cross Sections



Figure 4.13-8: Project Plan with Street Design Cross Section Locations

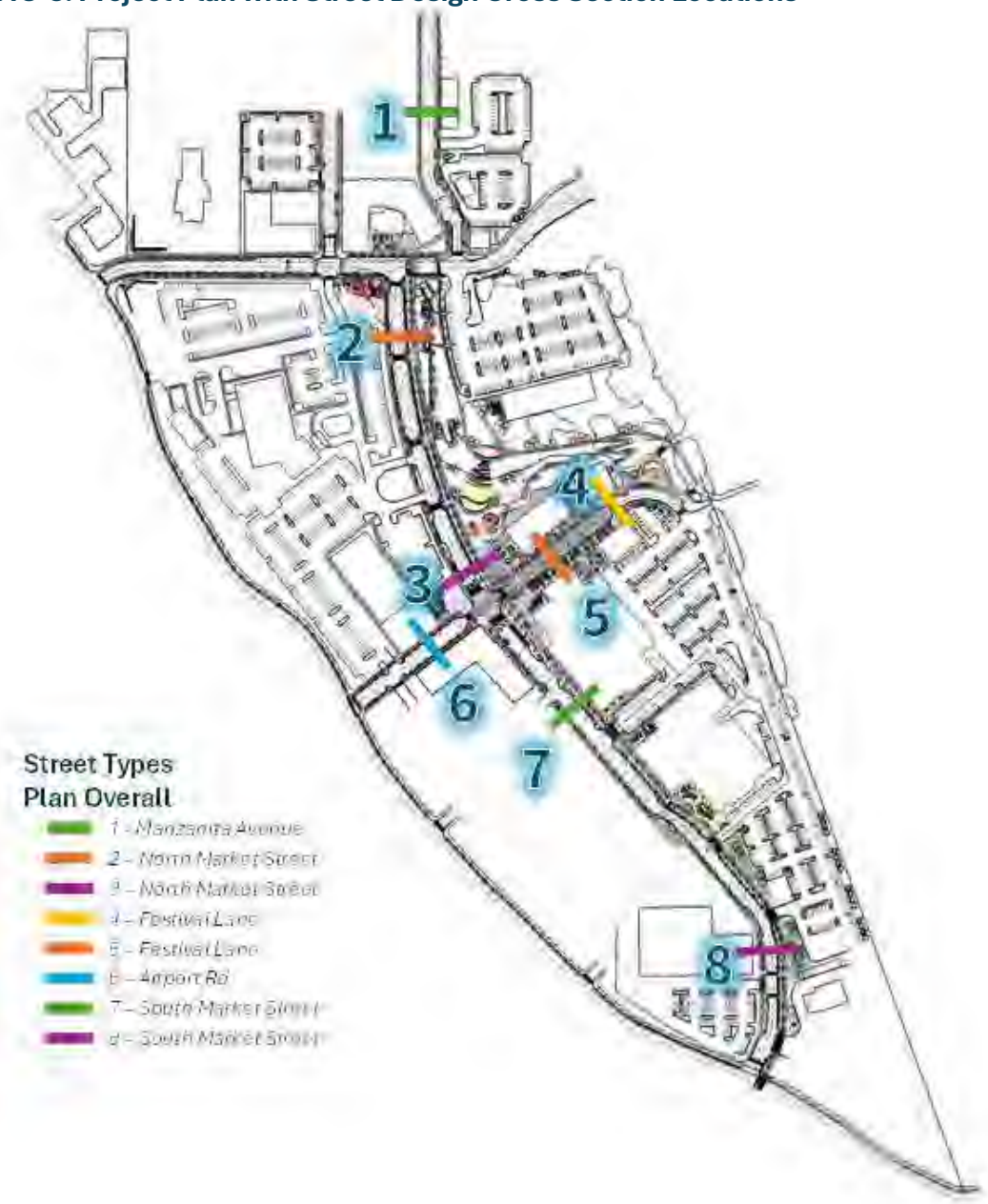


Figure 4.13-9: Transportation and Circulation Mitigation Measure Improvements

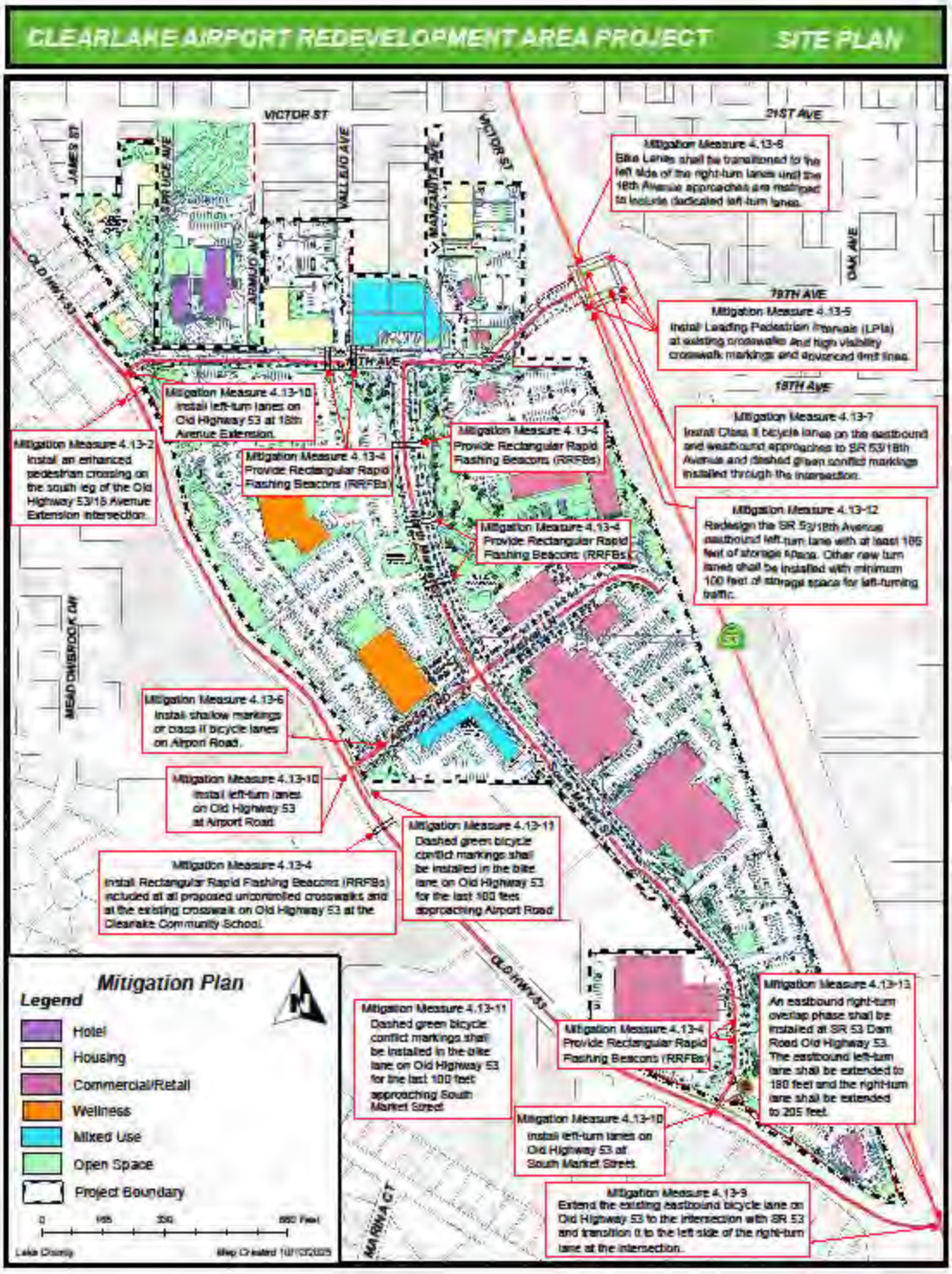
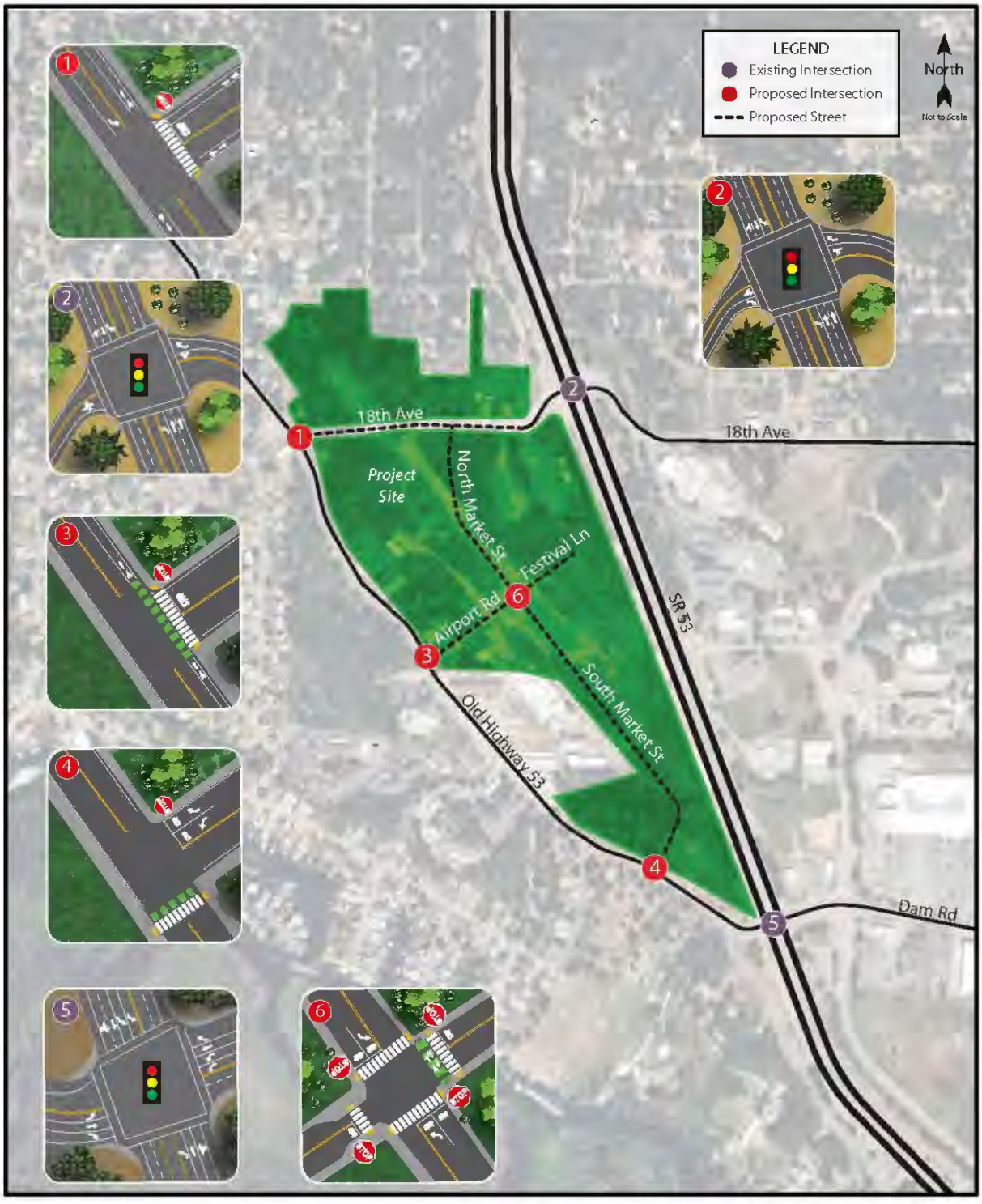


Figure 4.13-10: Existing and Proposed Lane Configurations Improvements



4.14 TRIBAL CULTURAL RESOURCES

4.14.1 Introduction

The purpose of this chapter is to provide a discussion of tribal cultural resources that is a basis for understanding the Project's potential impacts and creation of mitigation measures.

CEQA defines a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either included or determined to be eligible for inclusion in the CRHR or a local historical register, or determined by the lead agency to be to be one based on substantial evidence (PRC Section 20174(a)). A cultural landscape that meets this definition is a tribal cultural resource to the extent that the landscape is geographically defined in terms of size and scope (PRC Section 20174(b)). A historical resource or archeological resource that meets this definition might also be a tribal cultural resource, if identified as such by a consulting tribe (PRC Section 20174(c)).[1]

The tribal cultural resources impact analysis has been conducted primarily based upon the following sources:

1. Tribal consultation record between the City and culturally affiliated tribes under Assembly Bill 52[2]

2. Records search information from the California Historical Resources Information System, as described in Chapter 4.4, Cultural Resources[3]

3. Cultural resources assessments:

    a. Cultural Resource Investigation of the Proposed Airport Commercial Center Property, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, April 2026.
    b. Cultural Resource Inspection of the Former Airport Materials Storage Yard, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, August 2024.
    c. Cultural Resource Investigation of the 2.8-Acre Airport Parcel APN 04212125 and the 3.47-Acre Proposed 18th Avenue Extension, City of Clearlake, Lake County, California by Sub-Terra Heritage Resource Investigations, August 2022.

4. Peer review assessment:

[1] California Environmental Quality Act of 1970 (CEQA), California Public Resources Code – CEQA, Pub. Res. Code (PRC) §§ 21074 (a-c), 2025.
[2] Governor's Office of Land Use and Climate Innovation, Tribal Cultural Resources (AB 52), State of California, 2026.
[3] California Historical Resources Information System (CHRIS), *Northwest Information Center*, Sonoma State University, 2025.

a. Peer Review of Cultural Resources Reports for the Airport Retail Commercial Center and 18th Avenue Extension Project, City of Clearlake, Lake County, California, by ECORP Consulting, Inc., May 2026

Under existing law, environmental documents must not include information about the location of archaeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (California Code of Regulations Section 15120[d]).[4] The complete reports are confidential and are on file at the City of Clearlake Community Development Department, available only to consulting tribes and qualified individuals meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology.[5]

Lastly, two comments were received during the public review period or scoping meeting for the Notice of Preparation (NOP) regarding this topic:

1. Koi Nation of Northern California (July 22, 2024).
2. Native American Heritage Commission (NAHC) (July 24, 2024).

These comments are addressed within this section. Full comments received are included in Appendix B.

4.14.2 Existing Environmental Setting

The project site is located within the southern area of the incorporated limits of the City of Clearlake, in Lake County, California (see Figure 3-1, Regional Location Map from the Project Description Chapter). The project site is bounded by the 18th Avenue extension and Victor Street to the north, State Route (53) to the east, and Old Highway 53 to the south and west (see Figure 3-2, Project Location Map from the Project Description Chapter).

The cultural resources assessment evaluated the Area of Potential Effects (APE) for the Proposed Project. The APE is defined as the geographic area where project activities may directly or indirectly cause changes in the character or use of historic properties of prehistoric or historic age, if any such properties exist. The APE includes the entire 54-acres acres of the site of the Proposed Project. The APE is surrounded by Existing land uses surrounding the project site are as follows (see Figure 3-4 from the Project Description Chapter):

- North: Single-family residential, as well as a place of worship approximately 200 feet to the northwest.

[4] California Environmental Quality Act, Guidelines for Implementation (CEQA Guidelines), re: Public Records, Sensitive Archaeological Sites and Sacred Lands, Cal. Code Regs. title 14, §§ 15120[d], 2026.
[5] U.S. Department of the Interior, *The Secretary of the Interior Professional Qualifications Standards*, accessed June 2026.

- South: Single-family residential to the south and southwest and fast food uses to the southeast.
- East: State Route (SR) 53 abuts the site's eastern boundary. Across SR 53 to the east are Adventist health care facilities, a private community center (Masonic Lodge), the Lake County Campus of Woodland Community College, government facilities, and commercial uses, including the Clear Lake Shopping Center and Walmart.
- West: Old Highway 53 abuts most of the western boundary of the Project site. To the west of Old Highway 53 are single- and multi-family residential uses, a park, a high school, and a small market.

Archaeological Context

Unless otherwise cited, the following summarizes the cultural resources assessment.

The archaeology of Clearlake centers on the Clear Lake basin, which holds evidence of human habitation dating back at least 11,000–12,000 years, making it one of the oldest inhabited regions in California. Key sites, such as the Borax Lake site, highlight a long, continuous Paleo-Indian and Pomo indigenous presence, characterized by obsidian tools, and grinding stones. The Project is located within traditional territory of the Koi tribe, southeast of the Elem, and due north of the Middletown Rancheria tribe; however, this area was occupied or at least visited by all three tribes.

The Southeastern Pomo developed landmarks of social complexity at an earlier time depth than adjoining regions. Fixed, multi-season settlement began in Clear Lake basin as early as 7,000 years ago, with more intensive settlement after 2,600 years ago. Archaeological sites in traditional Southeastern Pomo territory have produced seasonality indicators showing occupation from Fall through late-Spring throughout the archaeological record, the latter season enabled by the high-yield/low-cost spring stream-run and summer shore-spawning cyprinid fisheries which occurred in abundance at a time of the year where neighboring districts produced only low-yield/high-cost resources or a dearth of resources. The early residential sites found in traditional Koi Pomo territory signaled an unusually early colonization and control of access to the key resources, an effort both enabled and sponsored by resource surplus.

A synthesis of Southeastern Pomo prehistory found that possession of these surplus resources provided the context for rapid social change, with political power emerging around individuals who successfully managed the competitive relationships by converting exogenous labor into wealth. This in turn gave rise to an Archaic trade culture that successfully commoditized the surpluses at an early time depth, resulting in the region's most elaborate barter-based trade system. Extensive production for trade began in traditional Koi Pomo territory by 3,200 years ago, focusing on Borax Lake obsidian but involving other products including marine shell beads, and potentially, early ceramics, bone fishhooks, and basketry, the latter indicated in the archaeological record by finely finished basketry awls and an increasingly varied range of textiles evident in impressed clay artifacts.

Ancient caches representing bundled Clear Lake obsidian trade blanks stashed along trail routes have been found in the Russian River drainage west of traditional Koi Pomo territory and in the Mendocino National Forest to the north, and obsidian sourcing studies have established that a

predominant Borax Lake obsidian trade sphere extended more than 100 miles north and east of traditional Koi territory beginning at least 3,000 years ago. Direct evidence of Archaic extra-regional trade is also indicated by occasional early shell bead types found in sites located in traditional Southeastern Pomo territory. Marine shell beads and ornaments traded-in from coastal and interior sources first appeared in these sites beginning around 3,200 years ago, with Macoma, Haliotis, and Mytilus disk beads most common to around 2,300 years ago, Olivella saucer and saddle beads along with narrow Haliotis pendants after 1,900 years ago. These beads were probably sewn into clothing and regalia exchanged in the Archaic barter system.

Ethnographic Overview

Unless otherwise cited, the following summarizes the Cultural Resources assessment.

Ethnographic analysis is highly pertinent to the evaluations of tribal cultural resources. It helps identify, document, and evaluate these resources, including places, features, or cultural landscapes by combining traditional, historical, and oral evidence from Native American tribes.

The Project site is located within traditional territory of the Koi Nation, southeast of the Elem, and due north of Middletown Rancheria. For thousands of years, Pomo lived throughout North-Central California. They produced many goods, including tools like arrowheads, knives, ax-heads, scraping tools and magnesite. They used currency to dominate trade in Lake and Sonoma area and utilized trade trails. They also expertly crafted beads of magnetite and clam shells, which served as a form of currency. The Pomo people are best known for their baskets, which were intricately designed, functional and watertight. Before colonization by Europeans, there were some 3,000 Pomo Indians living in the region, speaking one of three distinct languages. The ancestors of the Koi Nation, who were part of the Southeastern Pomo, lived on the island village of Koi in Clear Lake. They subsisted on an abundance of fish and game along with a variety of native vegetation.

Historic Overview

California's North Coast Ranges was one of the last regions of the Continental U.S. explored and settled by non-Native Americans. Until the late 1830s, Clear Lake basin was a remote frontier marginal to the actions of Spanish, Mexican, British, Russian, and American colonial powers. Europeans arrived in the Clear Lake Basin relatively late in the colonial history of North America. Many of the accounts of non-Native presence in the Clear Lake area were written just after the turn of the century and based on information from Native American people who were alive in the 1800's. The views of about 30 Lake County Pomo representing at least five village communities were contained in the ethnographic accounts.

There are no published accounts of European contact with the Clear Lake Basin until 1832-33 when a party of American trappers working for the Hudson's Bay Company passed through the area. In 1832–1833, the concurrent Hudson's Bay trapping parties led by John Work and Michel Laframboise were the region's most historically consequential early expeditions, making the first documented visit to Clear Lake basin. The concentration of trapping parties in the lower Sacramento Valley in the winter of 1832 through spring and summer of 1833 led to the spread of malaria and the death of tens of thousands of Northern California Native Americans. Contact with

the Spanish finally occurred in 1841 when Salvador Vallejo sent men into the area to obtain work on his Sonoma Valley Ranch. In 1837, a second introduced disease, smallpox, swept through Central California Native and non-Native populations. The full extent is unknown but it is clear that before 1836, despite the lack of sustained direct contact, Clear Lake basin Native populations suffered from these pandemics. Estimates from the cultural assessment indicates that, in the years 1848−1870, acute, chronic, and epidemic diseases, primarily malaria, smallpox, cholera, typhoid, whooping cough, measles, tuberculosis, pneumonia, and influenza and dysentery, accounted for a population decline of up to 45 percent in Native Northern California, and up to 60 percent if the chronic effects of syphilis were included.

In March of 1839, the Vallejo brothers, a group of rancheros from Mexico, established headquarters in Big Valley near present-day Kelseyville and drove in animal stock. The Mexican Governor's office granted approval for establishing 14 leagues of land, approximately 207 square miles, encompassing the entire shoreline of Clear Lake and extending to the southern watershed boundary of the basin for use for ranching and farming. Many Pomo adapted rapidly to the new economy, and "made active by the rancheros during the mid-1840s. During this time span, a number of Koi Native Americans were enslaved by the rancheros who are known to have massacred Native American villages, such as on Koi Island. In 1847, the Vallejo (rancheros) sold their remaining Big Valley stock and lands to two Americans, Charles Stone and Andrew Kelsey. The entry of these two men triggered the signal events of 1848–1850 which again changed Native American lifeways around Clear Lake radically, propagating a series astonishing deprivations committed against local tribes in the years immediately predating a flood of American settlement. Stone and Kelsey quickly established a pattern of enlisting and forcing Native Americans into peonage and low-wage labor roles and enslavement. Many conflicts between the newly arrived Americans and Native Americans took place with several referenced massacres of Native Americans.

The Mexican-American War culminated in the California Conquest of 1846 and subsequent annexation and statehood resulting in the collapse of most of the great Mexican ranchos which were then sold piecemeal to American settlers and speculators. In 1853 the State Lands Commission opened the Clear Lake area for unencumbered homesteading. By 1854, the region was added to the U.S. Public Land Survey System, and homesteader's claims were recorded by the U.S. General Land Office. Many Eastern and Southeastern Pomo who under Mexican rule had been forced to labor in the fields of Napa and Sonoma County returned home to Clear Lake where they found their homes, lands, and lives upended. They were increasingly hemmed in by rapid American settlement and private property practices. For many, their birthplaces and traditional family village sites were now inaccessible.

Responding to the increasing frequency of conflict between the Pomo and white settlers, in late-1855, then-State Superintendent of Indian Affairs oversaw the selection and development of the Mendocino Reservation on the coast near present-day Fort Bragg. In 1856 through 1858 many tribes, including Northern, Central, and Southern Pomo from Sonoma and Mendocino, the Miwok and Wappo from Marin and Napa Counties, the Wailaki from southern Humboldt County, and the Eastern Pomo from Clear Lake were relocated to reservations. The Cache Creek Pomo avoided this phase of reservation removals having been protected by local ranchers and farmers who wished to keep them as resident laborers. Mendocino Reservation, the closest to the Project site, was in

operation until 1865. It was reported that by 1871, just five Native American families were still living in the old village on Koi Island (the primary village), including the Johnsons, the Salvadors; the Patchs; and two other unnamed families. Bedai was initially colonized in 1868–1872 by 21 individuals representing the Johnson, the Patch, Salvador, and Kelsey families.

Through the span of the settlement's existence, 51 recorded births took place at Bedai. Three of the initial colonizing families, the Johnsons, Kelseys, and Salvadors accounted for 70-percent of the births, including three generations of the Johnson family born at Bedai, and the majority of Bedai births 1881–1935 were to the Koi-born and Bedai-born children of these first families. Around 1900, the senior families were joined by new family names, mostly the cumulative product of bi-local marriage residency practices with husbands from traditional Sulphur Bank, Middletown, and North Fork Cache Creek families moving to the Bedai wife's family home base, introducing surnames new to Bedai. The balance of the surviving Southeastern Pomo were concentrated at Bedai until the 1930s, when the Lower Lake economy shifted away from farm and ranch production. The practice of regular intermarriage between the families of Koi Island and Sulphur Bank was already firmly in place before the move to Bedai.

The section of Cache Creek in the vicinity of the old Lake Street steel bridge is heavily referenced in the ethnographic record as the traditional site of fishing camps situated at Cache Creek's Seigler Creek confluence, a renowned hitch fishing spot of central importance to Native American occupation. This area is also known as the Lower Lake Rancheria and includes the site of the Proposed Project. It was reported that some of the Koi and Yo refugees who arrived on the borders of Cache Creek in 1868 settled near the fish camps. Notably, the 1910 U.S. Bureau of Indian Affairs Population Census for Lower Lake lists all known Bedai as occupants of a settlement near Lower Lake Bridge. However, the Lower Lake Rancheria was described as less suitable for habitation as compared to the oak-forrested streamside setting provided at Bedai. The Lower Lake Rancheria was described back then as further rugged former deer hunting terrain on a high bench, a barren, xeric landscape of basalt boulders and dense, hardpan clay covered with broad swaths of chamise brush and scattered clusters of blue oak, gray pine, and scrub oak. The cultural assessment concludes that the Bedai residents rejected the Lower Lake Rancheria with good cause.

A total of 100 documented individuals had at least temporary occupation at Bedai during the tenure of the settlement between the years 1868 and 1957. During this time of Lower Lake's large ranch and vineyard economy, the Bedai participated in local wage labor. Most of the Bedai households continued the traditional hunting, trapping, and plant food collection, that were previously known to have been practiced at their former settlements on Koi Island. The Bedai community reached its population peak of 64 between 1900 and 1929. This was confirmed by a census taken in 1905-1906 by Charles Kelsey, Secretary of the Northern California Indian Association which found between 55 and 65 Native Americans occupying as Bedai. Bedai occupation plummeted rapidly, shifting the colony in the 1940s and 1950s to an elder refugium occupied by the last scions of the old Koi families. Just five individuals occupied Bedai when the settlement was razed in 1959.

Soils and Landform Considerations

Unless otherwise cited, the following summarizes the cultural assessment.

Soils and landform investigations are highly pertinent and essential to cultural and tribal cultural resource evaluations. They provide critical data for identifying, evaluating, and protecting these resources, particularly tribal resources, such as sacred sites, and traditional use areas. These investigations help determine the presence of buried archaeological materials, assess the integrity of cultural sites, and understand the historical context of a landscape, which is often tied to traditional knowledge.

The cultural assessment includes a thorough review of the project site's soils and area to evaluate the potential presence of tribal cultural resources. The aerial photograph review indicated that only approximately 1.9 acres of the 54.5-acre Project site consist of native soils. These areas contain standing oak and shrubbery and are located generally in the northern, northeastern, and western portions of the Project site. More details of the Project site geology and soils from the assessment are summarized as follows:

Geology: The region's oldest volcanic deposits date 0.80–2.10 million years and form the bulk of the volcanic uplands west and southwest of the Lower Lake arm of Clear Lake. The locus of eruption then shifted to the northeast. The Schoolteacher Hill/Quackenbush Mountain uplands immediately east of the ridges of the project site are composed of basaltic andesites emplaced during this later phase, around 0.30–0.65 million years ago. The project site exhibits basalts that comingle with Lower Lake Formation. The area's latest round of volcanism dated around 0.01–0.09 million years ago, after the lake basin stabilized to its present basic shape. This phase of eruption resulted in the basaltic andesite, basalt, and obsidian at Borax Lake and the production of a number of fumaroles, spatter cones, and small craters along the Clear Lake shoreline northwest of the Project site.

Lakebed and Shoreline Feathers: A large basin has existed in the area of the present Clear Lake basin for at least the last 3 million years. The basin is fault-bounded and USGS findings suggest that the lake has a complex history with a large role for seismic and volcanic events, nevertheless, relative movements have tended to maintain the area in and near Clear Lake as a structural basin.

Soils: Project site soils are classified as Benridge-Soda Bay Clay, an ancient, high-density argillic deposit classified by USGS as known for poor percolation (Class 0) and 45-percent clay content. In the Project site, Benridge-Soda Bay soils vary in depth, with shallow deposits found in and around basalt outcrops and deeper deposits of up to 5.5 feet (170 centimeters) found in bedrock hollows. Large and small boulders are suspended in the clay, and local basalt outcrops are composed of boulders tumbled into place, both factors indicating the Benridge-Soda Bay deposits are composed of debris flows originating from slide scarps visible upslope, in the hills east of the Project site.

Modern Development

Native vegetation communities on the Project site were largely undisturbed in 1956, and unlike the riparian, and wetland environments found near the lakeshore, in its native state the Project site was a barren, xeric landscape of basalt boulders and dense, hardpan clay. Species composition at the project site at this time was characteristic of having rocky areas supported small patches of chaparral woodland with overstory including various native oak trees. In 1956, there were only four built features occupying 2.35 acres (0.43 percent) of the project site. Two connected dirt roads located in the northern quarter of the project site were graded for initial development of the "Avenues" subdivision, the east-west track of present-day 18th Avenue and the north-south connector of present-day Victor Avenue. The route of the Lower Lake-Burns Valley Road, built in the 1860s, cut an 830-foot-long, swath up to 40-feet-wide on the south margin of the project site.

Since 1956, the project site has undergone significant development and disturbance with over 96 percent of the site being impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. The evolution of disturbance presented in the Project Description Chapter of this EIR, Chapter 3 which presents the historic pattern of site disturbance from 1956 to present.

Native American Tribal Consultation and Coordination

Tribal Coordination Before Consultation: Previous to the above referenced consultations, the cultural assessment's principal investigator, Greg White, Ph.D., reached out to the Koi Nation of Northern California representatives to discuss tribal concerns. Koi Nation representative, Dino Beltran expressed concern that Koi Nation ancestor Mr. Thomas Johnson held property and resided historically in a home within the footprint of the Pearce Airport and asked the author to conduct research sufficient to establish the location of the Johnson home in relation to planned Airport Commercial Property activity. After conducting further research, Dr. White met with Koi Nation representatives several times. Dr. White was then contracted to conduct a cultural resource assessment for the City of the project site for preparation of the EIR. Dr. White then collaborated with the Koi Nation proceeding with additional meetings and including Koi Nation monitors during formal site surveys.

Initial AB 52 Consultation: The City determined that it was ready to initiate environmental review under CEQA for the Project. On July 9, 2024, the City sent project notification letters to the following California Native American tribes, which had previously submitted general notification requests in writing pursuant to 21080.3.1(d) of the Public Resources Code.[6]

- Koi Nation of Northern California
- Elem Indian Colony
- Middletown Rancheria

[6] Cal. Pub. Res. Code Environmental Quality re: Tribal Notification §21080.3.1, 2026.

Each recipient was provided with a brief description of the project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation, pursuant to PRC Section 21080.3.1(d). The 30-day response period concluded on August 9, 2024.

The Koi Nation of Northern California responded to the City on July 22, 2024, requesting consultation in accordance with AB 52. City staff met with Koi Nation representatives that both initiated and continues consultation as follows:

First Meeting – December 4, 2024: City staff provided a detailed project overview, including preliminary concept plans, anticipated ground-disturbance activities, and project timelines. Koi Nation asked clarification questions and expressed concerns related to tribal/cultural resources, and areas of their concerns. Potential mitigation measures were discussed as well. The meeting concluded with follow-up items to be discussed during the next meeting.

Second Meeting – March 5, 2025: Discussion focused on follow-up items from the previous meeting, particularly project boundaries, areas of concerns, site history and the sharing of historical information. Koi Nation reiterated their concerns and made additional requests.

Third Meeting – March 27, 2025: Continued discussion of follow-up items, including further clarification of project boundaries, development types/uses and project timeline. Koi Nation maintained their concerns and ongoing requests.

Neither Elem Indian Colony nor Middletown Rancheria responded to the offer to consult.

Updated AB 52 Consultation: Following a project hiatus, on May 28, 2026, the City restarted AB 52 consultation and sent new project notification letters to the following California Native American tribes, which had previously submitted general notification requests in writing pursuant to 21080.3.1(d) of the Public Resources Code.

- Koi Nation of Northern California
- Elem Indian Colony
- Middletown Rancheria

Each recipient was provided with a brief description of the project and its location, the lead agency contact information, and a notification that the tribe has 45 days to request consultation, pursuant to PRC Section 21080.3.1(d). Multiple attempts were made to reach nonresponsive tribes by telephone and email to ensure that the tribe was in receipt of the letter and understood the opportunity to consult.

Because the City initiated consultation with all AB 52 tribes that requested it, the threshold for release of the CEQA document for public review in PRC Section 21080.3.1(b) has been met. The City will conclude consultation with all AB 52 tribes in good faith prior to the threshold for the certification of an EIR, in accordance with PRC Section 21082.3(d).

4.14.3 Regulatory Context

Federal

National Historic Preservation Act

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the secretary of the Interior, to encourage the achievement of preservation goals at the Federal, State, and local levels.

To qualify for significance in the National Register, resources must possess integrity of location, design, setting, materials, workmanship, feeling and association, in addition to any of the following:

- Be associated with events that made a significant contribution to the broad patterns of American history; or
- Be associated with lives of significant persons in or past; or
- Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity; or
- Have yielded or may yield, information important in history and prehistory.

Resources less than 50 years old are not considered eligible except for those resources that have achieved significance of exceptional importance.[7] The California Environmental Quality Act (CEQA) requires the evaluation of projects which affect properties that are listed in the National Register.

Section 106 NHPA

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the NHPA until shown to be not significant. Section 106 of the NHPA and its implementing regulations note that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting.[8] The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archaeology, engineering, and culture. This quality must be present in districts, sites, buildings,

[7] National Historic Preservation Act of 1966, 54 U.S.C. § 300101 *et seq.* (1966), 2026.
[8] Protection of Historic Properties, 36 Code of Federal Regulations (CFR) pt. 800, 2026.

structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: It is associated with the lives of persons significant in our past; or
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under City environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a Federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. Section 106 requires the federal lead agency to take into account the effects of a federal undertaking on historic properties and make reasonable effort to avoid, reduce, or resolve adverse effects to them in advance.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards that were developed in 1976, the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings were published in 1995 and codified as 36 CFR 67.[9]

Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

[9] Historic Preservation Certifications, 36 CFR 67 (1995), 2026.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved.[10] Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.[11 & 12]

State

California Environmental Quality Act

CEQA requires a lead agency, in this case the City of Clearlake, to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). As described further in Chapter 4.4 (Cultural Resources), a historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).[13] A resource shall be considered historically significant if it:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
b) Is associated with the lives of persons important in our past;
c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
d) Has yielded, or may be likely to yield, information important in prehistory or history.

California Health and Safety Code

The discovery of human remains is regulated in accordance with California Health and Safety Code Section 7050.5, which states:

> *In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the*

[10] Protection and preservation of traditional religions of Native Americans, 42 USC, Ch. 21 §1996
[11] Native American Graves Protection and Repatriation, 43 CFR Part 10 (1990), 2026.
[12] Native American Graves Protection and Repatriation, 25 USC Ch. 32 §§3001-3013, 2026.
[13] Impacts to Archaeological and Historical Resources, 14 CCR §15064.5, 2026.

> *human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.*[14]

Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.[15]

California Penal Code

California Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.[16]

California Public Resources Code

The PRC provides protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require descendants to be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.[17]

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR.

Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.[18, 19 & 20]

Assembly Bill 978

[14] Cal. Health & Safety Code (HSC) Discovery of Remains, HSC, Div. 7, Pt.1, Ch. 2 §7050.5, 2026.
[15] Respect of Human Remains, HSC, Div. 7, Pt.1, Ch. 2 §7052, 2026.
[16] California Penal Code, Vandalism of Archaeological or Historical Sites, Cal. Penal Code, Pt. 1, tit. 14 §622.5, 2026.
[17] Native American Historical, Cultural, and Sacred Sites, PRC, Div. Ch. 1.75, §§5097.9-5097.991, 2026.
[18] Office of Historic Preservation, California Register of Historical Resources, California State Parks, 2026.
[19] Historic Resources, PRC, Div. 5, Ch.1, Art. 2, §§5020-5029.7, 2026.
[20] California Register of Historical Resources, CCR, Ch. 11.5, 2026.

In 2001, AB 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.[21 & 22]

Assembly Bill 52

AB 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. Included or determined to be eligible for inclusion in the CRHR; or,

    b. Included in a local register of historical resources as defined in PRC Section 5020.1(k).

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe. A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed Projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Consultation may concern the level of environmental review necessary; the significance of a tribal cultural resource and of a project's impact on that resource; and project alternatives and/or

[21] Native American Heritage Commission, California Native American Graves Protection and Repatriation Act (CalNAGPRA), (2001). Accessed June 13, 2026.
[22] CalNAGPRA, HSC, Ch. 5, §§8010-8030.

mitigation, including those recommended by the tribe. During consultation, lead agencies must also follow certain confidentiality requirements concerning the tribal cultural resources at issue. Consultation ends when:

- The City agrees to incorporate the mitigation requested by the tribe into the CEQA document (if a significant effect exists), or,
- The tribe or the City concludes that agreement cannot be reached. If no agreement is reached, the lead agency must still consider feasible mitigation based on the standards in the statute.

Local Plans

Climate Adaption Plan

Adopted by the County of Lake County on January 13, 2026, and the City of Clearlake January 15, 2026, the Climate Adaption Plan (CAP) provides a framework to reduce climate-related risks and build community resilience countywide. This plan includes a Climate Vulnerability Analysis, Countywide Evacuation Study and goals, strategies and actions that affect tribal cultural aspects of the project as follows:

Strategy 4: Strengthen Habitat Connectivity and Interagency Coordination. Establish comprehensive coordination between agricultural, natural resource, and tribal agencies to identify key habitats and connections and to improve habitat connectivity planning across private and public lands while integrating traditional ecological knowledge into biodiversity conservation efforts.

Action 4.2: Coordinate with the Tribal EcoRestoration Alliance to systematically integrate traditional ecological knowledge into public and private habitat management programs and biodiversity conservation planning.

Strategy 13: Tribal Economic Sovereignty. Support Tribal governments in aligning economic development and workforce training with countywide climate resilience priorities, ensuring coordinated efforts for resilient economic development.

Action 13.3: Work with Tribal governments to seek funding and partnership opportunities to expand and foster a robust bioeconomy.[23]

City of Clearlake 2040 General Plan

[23] Lake County, *Lake County Climate Adaptation Plan*, Lake County 2050, January 2026.

The General Plan includes goals and policies to protect resources, including historical, cultural and tribal resources.

The Conservation Element contains the following policies and programs specific to archaeological, paleontological, historic, and tribal resources:

Policy CO 10.1.1 The City shall identify and evaluate cultural resources during the land use planning process pursuant to CEQA and participate in and support efforts by others to identify significant cultural, historical, and archaeological resources using appropriate State and Federal standards.

Program CO 10.1.1.1 The City shall work with California Native American Tribes, as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3, through collaboration with the Sonoma State University Northwest Information Center (SSUNIC) to prepare an archaeological, cultural, and historical resources map and inventory within the City.

Policy CO 10.1.2 The City shall continue to solicit views from the local Native American communities regarding cultural resources. Any changes, modifications, or additions to the Clearlake City General Plan will require consultation with local Native American representatives prior to adoption, as specified in California Senate Bill (SB) 18

Program CO 10.1.2.1 The City shall work with the Native American Heritage Commission to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties.

Policy CO 10.2.1 The City shall encourage the protection of cultural, historical, and archaeological sites.

Program CO 10.2.1.1 The City shall help identify sites of statewide or local significance that have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values for potential for placement on the National Register of Historic Places and/or inclusion in the California Inventory of Historic Resources.

Program CO 10.2.1.2 The City shall update the City's Grading Ordinance to be consistent California Code of Regulations, Title 20, Section 2501 et seq. to ensure protection of cultural resource sites during the grading process.

Policy CO 10.2.2 Development on sites of cultural significance shall follow the guidelines outlined in the California Environmental Quality Act

(CEQA) Section 21083.2 (b1, b2, b3, b4) and the CEQA Guidelines Section 15126.4c.

Program CO 10.2.2.1 The City shall develop a set of mitigation measures to be used for any project which may impact an identified site of cultural significance.

Program CO 10.2.2.2 The City shall enforce procedures to ensure that mitigation measures established for the protection of historical resources are carried out prior to development.

Program CO 10.2.3.2 Use the State Historic Building Code for designated historic properties.

Policy CO 10.2.4 The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

Policy CO 10.2.5 In the event that archaeological/paleontological resources are inadvertently discovered during ground disturbing activities, the City shall require that grading and construction work within 100 feet of the find be suspended until the significance of the resource can be determined by a Registered Professional Archaeologist /Paleontologist as appropriate. The City will require that a Registered Professional Archaeologist/Paleontologist make recommendations for measures necessary to protect the find; or to undertake data recovery, excavation, analysis, and curation of archaeological/paleontological materials as appropriate.

Policy CO 10.2.6 Pursuant to CEQA Guidelines (Section 15064.5), if human remains are discovered during project construction, it is necessary to comply with state laws relating to prohibitions on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (California Health and Safety Code Section 7050.5).

Policy CO 10.2.7 If human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097).

Policy CO 10.2.8 The City shall continue to require "Project Reviews" (archaeological/historical) record searches for all discretionary projects under the California Environmental Quality Act (CEQA) that involves any subsurface soil work. If the record search

determines that the project site has the potential to contain archaeological, historical or other cultural resources (per Section 15064.5 of the CEQA Guidelines), an archaeological survey shall be conducted of the project site by a Registered Professional Archaeologist selected by the City. The survey shall include consultation with Native American Indian Tribes for the City of Clearlake (as maintained by the Native American Heritage Commission). The survey shall include a report summarizing findings including any required measures that will mitigate damage to the cultural resource to a level of non-significance. Recommended mitigation measures shall be incorporated into the project to insure potential that impacts are mitigated to a level of non-significance.

Policy CO 10.2.10 The City shall enter into a memorandum of understanding, memorandum or agreement, or other agreements with the Native American Heritage Commission (SSUNIC) for facilitated record searches for projects that may result in ground disturbance.

Policy CO 10.2.11 The City shall implement provisions of the Memorandum of Understanding (MOU) with the Koi Nation of Northern California, for addressing preservation of cultural resources within the City. The City will consider entering into other similar agreements with other Native American Indian Tribes, as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3.

Policy CO10.2.12 In collaboration with the Koi Nation of Northern California, the City will establish a consultation protocol for project consultation. The City will encourage other American Indian Tribes to consult with the Koi Nation of Northern California to develop consensus in project consultations with the City.

Policy CO 10.2.14 In order to assure compliance with the Native American Graves Protection Act, the City will work with California Native American Tribes as identified by the Native American Heritage Commission, pursuant to Government Code Section 65352.3 and other groups to the extent reasonably feasible to communicate develop procedures and enforce existing cultural resource protection laws.

Policy CO 10.3.2 The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites and districts.

Program CO 10.3.2.1 The City shall encourage the use of the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines

for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.[24]

Memorandum of Understanding between the Koi Nation of Northern California and the City of Clearlake

In August 2014, the City of Clearlake entered into a Memorandum of Understanding with the Koi Nation of Northern California, establishing objectives and guidelines for mutual efforts to address impacts on tribal cultural resources (refer to Appendix M).

Native Sovereign Nation Consultation Guidelines, Volume I: Guidelines

Replacing the Appendix O, Native American Tribe Consultation Program, in the City's Environmental Guidelines, this appendix provides more complete criteria for tribal consultation that complies with more recent changes to State environmental laws.

4.14.4 Impacts and Mitigation Measures

Standards of Significance

Following Appendix G of the CEQA Guidelines, impacts to tribal cultural resources are considered to be significant if the project would result in any of the following:

- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k); or,
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC § 5024.1. In applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

[24] City of Clearlake, *2040 General Plan*, February 28, 2017.

Project-Specific Impact Discussion and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project.

4.14-1 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). (Less than Significant with Mitigation)

Consultation with culturally affiliated tribes as part of AB 52 revealed that there is one tribal cultural resource within the project area eligible for listing in the CRHR: ACD-CR-01. However, the City of Clearlake plans to avoid the resource.

Excavation and trenching during project construction, however, could encounter previously unknown buried tribal cultural resources. If encountered, project activity could result in a substantial adverse change in the significance of a tribal cultural resource. Tribal monitoring during ground disturbing activities, coupled with procedures to identify, evaluate, and treat the discoveries, would ensure that tribal cultural resources, if encountered, are treated with care and in a culturally appropriate manner. Implementation of these enforceable mitigation measures is sufficient to reduce impacts to tribal cultural resources to ***less than significant with mitigation***.

General Plan Evaluation

The Clearlake General Plan includes Polices CO 10.1.1.1 that requires the City to consult with tribes, however, the General Plan policies do not directly address tribal cultural resources, as defined in CEQA.

Conclusion

Resource ACD-CR-01, is assumed eligible for the California Register of Historical Resources and the National Register of Historic Places and will be avoided by the Project. There is a potential of discovery of previously unknown tribal cultural resources in the Project site that would constitute a cultural resource worthy of consideration for the California Register of Historic Resources or National Register of Historic Preservation. This would result in an impact to historic resources during ground-disturbing activities. This is a potentially ***significant impact***.

Mitigation Measure(s)

Implementation of the **Mitigation Measures 4.14-1, 4.14-2 and 4.14.3 would reduce impacts** to tribal cultural resources to a level of ***less than significant***.

Mitigation Measure 4.14-1: The City shall retain a tribal representative from a culturally affiliated tribe to provide a one-time paid initial worker awareness and cultural awareness training program on or just prior to the first day of construction, and at any time five (5) or more untrained workers are employed in ground disturbing activities at the site. All supervisors of contractors, subcontractors, project personnel, and workers involved in ground disturbing activities shall be briefed on the requirements for avoidance, preservation in place, and minimization and mitigation measures by receiving cultural awareness training by the consulting tribe, as well as the procedures for addressing unanticipated discovery and respectful treatment of Native American human remains and tribal cultural resources.

Mitigation Measure 4.14-2: Prior to ground-disturbing activities commencing, the contractor shall install high-visibility exclusionary fencing to prevent ground disturbance within 50 feet of ACD-CR-0. A photograph of the installed fencing and a map indicating the photo point shall be submitted to the City Community Development Department as proof of compliance. Fence installation shall be monitored by a qualified professional archaeologist and, for tribal cultural resources, a culturally affiliated consulting tribe monitor, and inspected at least once per month by the City Community Development Department during active construction within the impacted area to ensure integrity of the fence line. Once all construction equipment and personnel have vacated the Project site, the exclusionary fencing may be removed. The contractor shall provide the City Community Development Department with documentation that the fence was installed, monitored, and removed in compliance with this measure. Tribal monitors from the culturally affiliated consulting tribe shall be present during the installation of the fence and during all Project activities within 100 feet of the resource.

Mitigation Measure 4.14-3: No ground-disturbing work shall occur within boundaries of the Sensitive Site identified in the Cultural Resource Investigation. All ground disturbing activity within 100 feet of ACD-CR-01 shall be monitored by a qualified tribal monitor from the culturally affiliated consulting tribe. This includes, but is not limited to any fence installation, staging work, clearing and grubbing, grading, and trenching. The tribal monitor must be given a minimum of seven (7) days' notice of the opportunity to be present during these activities to observe work activities and assist in ensuring that sensitive tribal cultural resources are not adversely affected. The monitor shall be given a reasonable opportunity to inspect soil and other material as work proceeds to assist in determining if resources significant to the tribe are present. If a potential tribal resource is identified by the monitor, they may pause or redirect work temporarily in order to closely inspect the potential discovery. If the tribe cannot recommend a monitor or if the tribal monitor does not report at the scheduled time, all work may continue as long as the specified notice of seven (7) days was provided. Recovery of cultural items, reburial preparation, and reburial shall also be conducted under the direction of culturally-affiliated tribes.

4.14-2 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (Less than Significant with Mitigation)

Consultation with culturally affiliated tribes as part of AB 52 did not reveal any substantial evidence for a tribal cultural resources landscape; however, excavation and trenching during project construction could encounter previously unknown buried tribal cultural resources. If encountered, project activity could result in a substantial adverse change in the significance of a tribal cultural resource. Tribal monitoring during ground disturbing activities, coupled with procedures to identify, evaluate, and treat the discoveries, would ensure that tribal cultural resources, if encountered, are treated with care and in a culturally appropriate manner. Implementation of these enforceable mitigation measures is sufficient to reduce impacts to tribal cultural resources to ***less than significant with mitigation.***

General Plan Evaluation

The Clearlake General Plan includes Polices CO 10.1.1.1 that requires the City to consult with tribes, however, the General Plan policies do not directly address tribal cultural resources, as defined in CEQA

Conclusion

Development in or near this Sensitive Site will need to be avoided to fully mitigate impacts on tribal resources. Implementation of the Mitigation Measures 4.4-1 and 4.4-3 and 4.14-1 through 4.14-5 would reduce impacts to tribal cultural resources, including impacts to human remains, to a level of less than significant. Also, **Mitigation Measure 4.14-1 would reduce potential impacts** to tribal cultural resources to a level that is ***less than significant***.

Mitigation Measure(s)

Mitigation Measure 4.14-1 and 4.14-3.

4.14-3 Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of tribal cultural. (Less than Significant with Mitigation)

The cumulative context for cultural resources in relation to this project primarily focuses on Native American activity in Lake County. The cultural assessment indicates that over 96 percent of the Project site has been impacted by construction-related levelling, cut, and fill, the majority accumulating between 1959 and 1982 in association with construction of the airport and related facilities. Only 10 small patches of unaltered landscape of less than 4 percent of the Project site remain undisturbed.

Tribal consultation indicated that there is a potential for ground disturbing activities to impact previously undocumented tribal cultural resources. With the implementation of mitigation measures, potential impacts to tribal cultural resources would be reduced to a less than significant level. Cumulative impacts would also be less than significant with these mitigation measures. It is anticipated that similar mitigation measures would be implemented for projects in surrounding jurisdictions that may affect tribal cultural resources.

General Plan Evaluation

The General Plan, which identifies the Project site for development of a future shopping center and acknowledges that there could be potential impacts on cultural resources, including tribal resources, from future development. However, the proposed Mitigation Measure 4.4-1 (Section 4.4) and Mitigation Measures 4.14-1 through 4.14-5 would be consistent with the General Plan's policies and programs to protect these resources.

Conclusion

Implementation of the **Mitigation Measure 4.14-1 through 4.14-3 would reduce impacts** to cultural resources and tribal cultural resources to a level of ***less than significant***.

Mitigation Measure(s)

Mitigation Measure 4.14-1 through 4.14-3.

5 STATUTORILY REQUIRED SECTIONS

5.1 Introduction

The Statutorily Required Sections chapter of the EIR includes brief discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines section 15126.2. The chapter includes a discussion of the Proposed Project's potential to induce economic or population growth. In addition, the chapter includes lists of significant irreversible environmental changes, cumulative impacts, and significant and unavoidable impacts caused by the Project.

5.2 Growth-Inducing Impacts

An EIR must discuss the ways in which a proposed project could foster economic or population growth in the vicinity of the project and how that growth would, in turn, affect the surrounding environment (see CEQA Guidelines section 15126.2[d]). In addition, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

Growth can be induced in a number of ways, including through the elimination of obstacles to growth, the stimulation of economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Under CEQA, this growth is not to be considered necessarily detrimental, beneficial, or of significant consequence. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval.

In general, a project could foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or General Plan amendment approval), or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion). A number of issues must be considered when assessing the growth-inducing effects of development plans, such as the Proposed Project, including the following:

- **Elimination of Obstacles to Growth**: The extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in unforeseen growth at the time of project approval; and,

- **Economic Effects**: The extent to which development of the proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the "multiplier effect." A "multiplier" is an economic term used to describe

> interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

The Preferred Site Plan includes approximately 436,500 square feet of commercial and medical uses, 250 multi-family dwelling units. The project could result in direct growth-inducement potential through the construction of new housing, and commercial development may induce growth indirectly if it attracts significant employment to the area, creating a demand for additional housing. As of August 2025, the City of Clearlake had an unemployment rate of 11.4 percent (630 persons), and Lake County had an average unemployment rate of 7.6 percent, compared to a statewide average of 6.0 percent.[1] Additional jobs created during construction and operation of the project would therefore be expected to be filled primarily by the local workforce, and multi-family housing would be provided within the project site. Therefore, the Project is not likely to induce substantial indirect population growth within the Clearlake area.

Similarly, under CEQA, a project would indirectly induce growth if it removes an obstacle to additional growth and development, such as removing a constraint on a required public service. The Project would not remove existing public service constraints as none were found to exist in the public services analysis contained in Chapter 4.12 of the EIR. It should also be noted that a regional shopping center on the project site was included in the City of Clearlake 2040 General Plan and included in the General Plan EIR, which determined that the General Plan would have less-than-significant growth-inducing impacts.

5.3 Cumulative Analysis

CEQA Guidelines section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines section 15355; see also Pub. Resources Code, Section 21083, subd. [b]). Stated another way, "[…] a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts" (CEQA Guidelines section 15130, subd. [a][1]).

"[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines section 15355, subd. [a]). "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future

[1] California Employment Development Department. "Unemployment Rate and Labor Force, Current Month Unemployment Rate and Labor Force Summary: Cities and Sub-County Places. August 15, 2025." http://www.labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html. Accessed September 4, 2025.

projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines section 15064, subd. [h(1)], 15065, subd. [c], and 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis, but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, CEQA Guidelines section 15064, subdivision (h)(5) states, "[…] the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of the CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

1. Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;

2. A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and,

3. A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects.

Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]) and should then identify the "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories. The lead agency does this by preparing a "list" of such projects or "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. [b][1]).

The geographic setting of the majority of cumulative analyses within this EIR consists of the City of Clearlake unless otherwise noted throughout this EIR. For example, the geographic setting for the cumulative air quality analysis is the Lake County Air Basin. The geographical context for global climate change is the Earth, but for analysis purposes under CEQA and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the state of California.

With respect to cumulative growth assumptions, the City of Clearlake relied on the annual growth projections prepared by EPS as part of the City's 2040 General Plan Update effort.[2] During this effort, EPS evaluated historical and projected growth in comparable cities in California, as well as other historical and current demographic and socio-economic trends in Clearlake, Lakeport, and Lake County. Based on this analysis, EPS estimated a potential average annual growth rate of approximately 1.4 percent between 2010 and 2040. Based on projected growth rates to 2040, EPS estimates that an additional 2,314 housing units will be developed, approximately 56 acres/680,000 square feet of nonresidential building area will be developed, and 1,049 more jobs will be created. This growth rate is expected to increase Clearlake's population from 14,997 in 2015 to 21,230 by 2040. It should be noted that after strong growth between 2010 and 2020, the population of Clearlake declined from 2020 to 2025, similar to other areas across California. The population is now estimated by the California Department of Finance to be 16,533. If the population grows by an average of 1.4 percent over the next 15 years, the population in 2040 will be approximately 20,125, slightly under the General Plan growth predictions.

The cumulative analysis in this EIR relies on the 1.4 percent annual growth rate projection for the City of Clearlake.

Cumulative Impacts

Cumulative impacts are analyzed in each of the technical chapters of this EIR (Chapters 4.1 through 4.13).

[2] Economic & Planning Systems, Inc. Technical Memorandum: Clearlake General Plan Technical Background Report Review and Technical Support; EPS #152128. May 4, 2016.

5.4 Energy Conservation

In order to ensure energy implications are considered in project decisions, Appendix F of CEQA Guidelines requires a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) Decreasing overall per capita energy consumption;

(2) Decreasing reliance on fossil fuels such as coal, natural gas and oil; and

(3) Increasing reliance on renewable energy sources.

The main forms of available energy supply in the City of Clearlake are electricity, geothermal sources, and oil. A description of the California Green Building Standards Code, with which the Proposed Project would be required to comply, as well as discussions regarding the Project's potential effects related to each form of energy supply during construction and operations is provided in Section 4.6 Greenhouse Gases, Climate Change and Energy of this Draft EIR. Based on the analysis in that section, the Proposed Project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the Project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency with the implementation of Mitigation Measure 4.2-1. Impacts related to energy consumption are considered less than significant with mitigation.

5.5 Significant Irreversible Environmental Effects

The State CEQA Guidelines mandate that an EIR address any significant irreversible environmental changes that would result if the proposed project were implemented (CEQA Guidelines section 15126.2[c]). An impact would fall into this category if any of the following would occur:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves a wasteful use of energy).

The development of the Proposed Project would occur on property that has previously been developed and used for other purposes, including but not limited to an airport, airport-related uses, and a Public Works corporation yard. The project site is also designated in the City of Clearlake 2040 General Plan for commercial uses. As part of the Proposed Project, sustainability modifications and features would be incorporated. However, the Project would likely result in, or contribute to, the following irreversible environmental changes:

- Irreversible consumption of non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals from project construction. A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for the initial construction, infrastructure installation and connection to existing utilities, and its continued maintenance;

- Irreversible consumption of goods and services associated with the future consumers; and,

- Irreversible consumption of energy and natural resources associated with the future residents, employees, and consumers. A variety of resources would be committed to the ongoing operation and life of the Proposed Project. The introduction of commercial and residential uses to the project site will result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of mobile energy, and the Proposed Project would increase consumption of available supplies, including gasoline and diesel. These energy resource demands relate to initial Project construction, Project operation and site maintenance and the transport of people and goods to and from the Project site.

5.6 Significant and Unavoidable Impacts

According to the CEQA Guidelines Section 15126.2(b), an EIR must include a description of impacts identified as significant and unavoidable, should the proposed action be implemented. When the determination is made that either mitigation is not feasible or only partial mitigation is feasible, such that the impact is not reduced to a less-than-significant level, such impacts would be considered significant and unavoidable.

This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigation measures imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by City Council as part of the City's certification action.

Implementation of the Proposed Project would result in the following significant and unavoidable impact that cannot be mitigated to a less-than-significant level:

- Impact 4.2-2: Cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- Impact 4.2-5: In combination with other cumulative development, cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation, or expose the public to substantial pollutant emissions or odors

Mitigation Measures 4.2-1 through 4.2-3 are included to reduce air quality impacts, but the Project would exceed thresholds for ROG and NO_X during project operations even with implementation of all feasible mitigation.

6 ALTERNATIVES ANALYSIS

6.1 Introduction

The primary intent of the Alternatives Analysis in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Furthermore, Section 15126.6(f) states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).

- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section15126.6[b]).

- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section15126.6[c]).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).

- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).

- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section15126.6[e][2]).

In addition, Section 15126.6(d) of the CEQA Guidelines states, "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

6.2 Purposes of Alternatives

The project alternatives need to feasibly attain most of the basic objectives of the proposed project, while avoiding or substantially lessening any of the significant effects of the project.

Project Objectives

The following project objectives have been identified for the project:

- Develop a destination for visitors and community by attracting jobs and commerce to the area
- Create a Clearlake identity at the South Gateway and a new City brand with street improvements, park improvements, and existing business improvement initiatives
- Maintain visibility along State Route (SR) 53
- Create a pleasant and attractive appearance that complements the surrounding area with the use of drought-tolerant and water-efficient landscaping and architectural designs that support and enhance community character
- Minimize impacts to adjacent land uses through appropriate design
- Provide walkable retail, services, and public space, and minimize travel lengths, and accommodate all transportation types, including vehicles, pedestrians, bicyclists, and transit users
- Develop a fiscally beneficial project that provides sufficient revenues to maintain municipal services
- Minimize environmental impacts to the maximum extent possible

- Promote local businesses and develop retail stores that will accommodate the retail demands of the Clearlake community and diversify products and services offered in the community
- Provide sufficient on- and off-street parking to ensure that adequate parking is provided for store customers and employees
- Provide significant economic benefits to the City and community in terms of diverse employment opportunities and increased sales tax revenues

Significant Project Environmental Impacts

Significant environmental impacts of the proposed project, which would be reduced to less-than-significant levels with implementation of the mitigation measures set forth in each of the associated chapters of this EIR as follows:

- ***Aesthetics.*** Significant light glare impacts from introduction of parking lots, commercial buildings, and signs, which emit light at night and glare from reflective surfaces, such as buildings windows and vehicles.

- ***Biological Resources.*** Significant impacts are identified for impacts related to habitat on special-status species, ephemeral and intermittent drainage areas, removal of locally protected oak trees during construction.

- ***Greenhouse Gases, Climate Change and Energy.*** Significant generation of greenhouse gas emissions.

- ***Cultural Resources.*** Significant impacts are identified for unique archaeological and/or cultural resources (except for tribal resources) or unknown human remains resources being discovered during construction.

- ***Geology and Soils.*** Significant impact identified for impacting unique paleontological resources during construction.

- ***Hazards, Hazardous Materials and Wildfire.*** Significant impacts identified for this category include the transport, use, or disposal of hazardous materials and the release of hazardous materials during operation and during construction.

- ***Noise.*** Significant impacts identified for this category include noise impacts during construction and potential noise impacts on planned residential areas of the project in close proximity to Highway 53.

- ***Transportation and Circulation.*** Significant impacts identified for this category include transit facilities, increased hazards due to design.

- ***Tribal Cultural Resources.*** Significant impacts are identified for Native American tribal cultural resources being discovered during construction.

The proposed project's impacts on air quality have been determined to remain significant and unavoidable, even after implementation of the feasible mitigation measures set forth in this EIR, including the following:

- ***Air Quality.*** A significant and unavoidable impact is identified from operational emissions of Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOX) which are criteria pollutants.

6.3 Selection of Alternatives

The CEQA requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is broad ranging with the primary intent of disclosing other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the *CEQA Guidelines* Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered but Dismissed from Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still potentially meeting basic project objectives. Any alternative that would have impacts identical to or more severe than the proposed project, and/or that would not

meet any or most of the project objectives were dismissed from further consideration. The alternatives considered but dismissed from further analysis in this EIR are discussed below.

Off-Site Alternative

This alternative scenario consists of a 50+ acre vacant site located elsewhere in or next to the City's boundaries that has full urban services that could be used and developed similar to the Proposed Project. This alternative might be consistent several project objectives except there are very limited to no primarily vacant sites located within the City of this size (with previous abandoned activity, such as an airport) to accommodate this size of a development, that an alternative site would not be located in close proximity to Highway 53 and within an area that screens out for Vehicle Miles Traveled (VMT) under the Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study for Lake County, and other potential locations would have more significant impacts on biological habitat (that the site consists of a redevelopment area where there is an abandoned airport that has been previously disturbed.

Section 15126.6 (a) of the CEQA Guidelines regarding EIR review of project alternatives states,

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Here, the proposed project is consistent with the currently adopted General Plan thus, in addition to the reasons discussed above, an off-site alternative need not be further discussed in this EIR.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative
- General Plan Regional Shopping Center
- Reduced Development Intensity/Density Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative "… shall discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available

infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining to the existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

No Project (No Build) Alternative

The No Project (No Build) Alternative is defined in this section as the continuation of the existing conditions of the project site, which is currently primarily vacant land with some very limited existing development/uses. Under the No Project (No Build) Alternative, the proposed project would not be undertaken, and further development would not occur on the site. The existing site, which has some non-residential buildings/uses such as the City's Animal Control building with some public works operations and a building used for storage by the Lake County Fire Protection District, a glass shop and two small storage buildings. Should the proposed project be rejected, the No Project (No Build) Alternative assumes no change in the existing environment and would result in a continuation of existing conditions on the site. The No Project (No Build) Alternative would eliminate or reduce all project-related impacts. However, the No Project (No Build) Alternative would not meet Project objectives regarding which are to create a diverse level of commercial, health and wellness facilities, and residential opportunities in Clearlake.

Because implementation of the No Project (No Build) Alternative would result in the site remaining under current conditions, physical environmental impacts would not occur. Therefore, implementation of the No Project (No Build) Alternative would result in fewer overall impacts compared to that of the proposed project. For a summary of the impacts resulting from the No Project (No Build) Alternative, see Table 6-1 at the end of this chapter.

General Plan Alternative

The 2040 General Plan, adopted in 2017, identifies the project site as a Regional Shopping Center and Key Growth Area to the City, designating the entire site 54-acre site for commercial land use and development. This alternative consists of development of 540,500 square-feet of building area, including 535,500 square-feet of commercial retail and three dwelling units of approximately 5,000 square-feet (see Chapter 4.9 of this EIR, Land Use and Planning for details on this alternative and assumptions). This is compared to the Proposed Project that consists of 436,481 square feet of commercial and health/wellness building area 250 dwelling. The General Plan Alternative results in over 104,000 or over 23 percent more commercial building area than the proposed project. But the Proposed Project would result in more residential development and about 100,000 square-feet

of residential building development comparatively (but with some mix with commercial) as compared to about 5,000 square-feet of residential building area (for the three dwelling units) under the General Plan Alternative. In addition to building area, both scenarios would result in other related improvements, such as parking, landscaping, roadways, and drainage systems. However, under the General Plan Alternative, development could be constructed piecemeal without contemplation of a larger plan for structured or organized development.

Although this chapter is intended to examine alternatives to the Proposed Project that would have reduced impacts in relation to the General Plan Alternative it is important to both look at programmatic impacts in accordance with Section 15168 of the CEQA Guidelines, but also to evaluate some of the impacts that the General Plan alternative may have that are less than significant to the Proposed Project.

Relative to other impacts, the General Plan Alternative would result in significantly more traffic. Comparing the General Plan Alternative, which would result in over 20,000 new vehicle trips per day, the Proposed Project would result in about 12,264 trips per day (based on the project traffic impact study vs the General Plan traffic study). Therefore, the General Plan Alternative would result in a 63 percent increase in traffic as compared to the Proposed Project. These impacts further equate to additional air quality impacts and additional Green House Gas, in terms of increased vehicle emissions (see Chapter 4.2, Air Quality and 4.4, Greenhouse Gases, Climate Change and Energy). However, the Proposed Project will result in more impacts on water and sewer services as compared to the General Plan Alternative due to the increased need to serve more residential development (see Chapter 4.12, Public Services and Utilities). Also, a mixed-use development, consisting of residential and commercial, versus mostly commercial results in more efficient land uses and reduced vehicle miles travels since there would be a greater job to housing balance with housing opportunities next to employment opportunities that further reduces reliance on auto travel (see Chapter 4, Section 413 Transportation and Circulation). Comparing the General Plan and the Proposed Project is evaluated in more detail based on the environmental categories previously referenced in this EIR as follows:

Aesthetics

The General Plan Alternative would result in significantly more commercial development than the Proposed Project. But, this building massing may be somewhat offset from the addition of 250 dwelling units under the Proposed Project. Both scenarios would result in significant development that will transform vacant and/or underused land that was previously used as an airport to a variety of development of buildings, parking, and open space. As shown in Chapter 4.1 of the EIR, Aesthetics, through renderings of the project as visioned to be constructed, the Proposed Project would not result in significant impacts scenic vistas nor degrade the existing visual character or quality of public views of the site, development of the site as could be significant under the General Plan Alternative. The Proposed Project includes the Development Manual that provides detailed development standards and guidelines for future development of the site that will ensure the project will be attractive. The General Plan Alternative potentially could significantly degrade the existing visual character or quality of public views of the site. The General Plan Alternative could also be conducted on a piecemeal basis with singular development on 40+ different parcels that consist of

the site. In both alternative scenarios, site development will result in lighting glare from daytime glare off building materials and vehicles (glass and metal) and nighttime lighting from exterior lighting. Again, the Design Manual includes parameters for lighting to reduce light glare to a less than significant level. However, under the General Plan Alternative lighting glare could result in more significant or less significant glare depending on the various lighting used under this scenario.

Conclusion: Overall, impacts related to aesthetics are expected to be less significant under the Proposed Project than the General Plan Alternative; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the General Plan Alternative. In both scenarios, aesthetic impacts would be less than significant.

Air Quality

Full commercial development of the site under the General Plan Alternative would result in greater air quality impacts than the Proposed Project, primarily due to a larger number of vehicle trips that generate more air emissions. Applying Institute of Traffic Engineer's Manual estimates for commercial retail to the General Plan Alternative of 535,000 square feet of commercial building area and three dwelling units, this results in almost 20,000 average new vehicle trips per day[1]. The project's Traffic Impact Study indicates that the Proposed Project would result in about 12,264 trips per day[2]. The General Plan Alternative would therefore result in about 60 percent more traffic than the Proposed Project that equated to more vehicular emissions.

Both alternatives would result in significant unavoidable air quality impacts to two criteria pollutants: Nitrogen Dioxide (NOX) and Reactive Organic Gas (ROG) emissions. As described in more detail in the Air Quality section of this EIR, using the Lake County Air Quality District's recommended thresholds from the 2022 Bay Area Air Quality Management District's CEQA Guidelines is 54 pounds per day (ppd) for both pollutant categories. (see Chapter 4.2). The Proposed Project would generate 56.5 ppd of NOX and 135.5 ppd of ROG of operational emissions; both exceeding the 54 ppd environmental threshold. Under the General Plan Alternative, it is expected that the project would generate greater NOX and ROG proportional to the increase of traffic over the Proposed Project and increase other emissions, such as carbon monoxide, and sulfur dioxide.

Conclusion: Overall, impacts from both the General Plan Alternative and the Proposed Project related to air quality are expected to exceed thresholds of significance for two criteria pollutants; Nitrogen Dioxide (NOX) and Reactive Organic Gas (ROG) emissions, both of which are considered significant and unavoidable. However, since these pollutants are primarily caused by mobile sources, and the General Plan Alternative will result in a greater amount of vehicular travel and emissions, the General Plan Alternative will have a greater impact on air quality than the

[1] Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021-535,000 square feet General Commercial - Rate of 37.1 average daily vehicle trips (adt) per 1,000 square feet of retail commercial building area (535 X 37.1=19,489 adt) + 3 units multiple family residential – Rate of 7.2 adt trips for townhouses (3 X 7.2=216 adt). Total 19,489 + 216 = 19,705 adt.

[2] W-Trans, Traffic Impact Study for the Clearlake Airport Area Redevelopment Area Project, 2025.

Proposed Project. In both scenarios, however, mitigation measures are included to reduce air quality impacts (refer to Chapter 4, Section 4.2, Mitigation Measures 4.1-1 through 4.1-3 in this EIR).

Biological Resources

The General Plan Alternative would have similar biological impacts as the proposed project in that it would be expected to also spread-out development on the site. However, since the building coverage and impervious surfaces, such as parking, and result in more site disturbance, the General Plan Alternative would be expected to have a greater impact to biological resources as compared to the Proposed Project. For example, the General Plan Alternative would be expected to result in increased removal of trees and potentially disturb more biologically sensitive portions of the site, such as the ephemeral and intermittent drainage areas and oak woodlands. This would be dependent on the exact design of the General Plan Alternative. However, the General Plan Alternative, like the Proposed Project, may be designed to avoid and/or mitigate significant impacts on biological resources.

Conclusion: Overall, impacts related to biological resources are expected to be less under the Proposed Project than the General Plan Alternative; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the General Plan Alternative (refer to Chapter 4.3, Mitigation Measures 4.3-1 through 4.3-4 in this EIR).

Climate Change

Climate Change: Carbon emissions, or Green House Gas (GHG) from project construction and project operations are contributing factors to climate change. GHG emissions from the Proposed Project were estimated using the CalEEMod emissions model. The CalEEMod model estimated the total GHG construction and operational emissions associated with the Proposed Project development (see Chapter 4.2 Air Quality and Appendix D of this EIR). Table 4.6-1 within this same section of the EIR presents the results of the CalEEMod run. The General Plan EIR found that buildout of the General Plan, which included the project site as a regional shopping center, would result in significant and unavoidable impacts related to GHG. However, given that the Proposed Project includes the criteria above the Project would reduce GHG emissions in comparison with the General Plan's projected buildout of the site, resulting in an impact that is less than significant with mitigation.

Conclusion: Impacts related to GHG emissions would be less under the Proposed Project than the General Plan Alternative; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the General Plan Alternative. (refer to Chapter 4.6, Mitigation Measure 4.6-1 of this EIR). Overall, impacts related to climate change would be less under the Proposed Project than the General Plan Alternative.

Cultural and Paleontological Resources

Cultural Resources

Since the General Plan Alternative would be expected to result in increased building coverage and greater site disturbance than the Proposed Project, the General Plan Alternative would add greater risk to potential disturbance, and consequently more impacts on cultural resources than the Proposed Project (see Tribal Cultural Resources section below which is separate from Cultural Resources).

Paleontological Resources

The paleontological resource assessment report concludes that the Proposed Project is not likely to encounter significant paleontological resources. However, the report notes that deep excavations, exceeding five (5) feet below ground surface, in the region mapped as alluvium (al) and Lower Lake Formation (II) may encounter the Cache Formation that is known to contain significant paleontological resources. Mitigation measures for the Proposed Project include requiring additional paleontological investigations within areas mapped as sensitive. In either scenario, if these mitigation measures are followed, both the General Plan Alternative and the Proposed Project would be expected to result in less than significant impacts to paleontological resources.

Conclusion: Overall, the General Plan Alternative would result in similar, and potentially more impacts related to cultural and paleontological resources as compared to the Proposed Project. However, impacts would still occur, and similar mitigation as required for the proposed project would be required. In both scenarios impacts on cultural and paleontological resources would be less than significant as long as mitigation measures are followed (see Chapter 4.4, Mitigation Measures 4.4-1 through 4.4-3 and Chapter 4.5, Mitigation Measures 4.5-2 and 4.5-3 in this EIR).

Energy

Both the General Plan Alternative and the Proposed Project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. The Proposed Project would involve the provision of sidewalks throughout the project site, as well as multi-use trails to allow for passive recreation, such as walking, jogging, and bicycling. These improvements would provide pedestrian and bicycle connectivity within the project site, thereby helping to discourage driving and reducing vehicle trips and associated transportation energy demand. Although the General Plan Alternative would provide sidewalks throughout the site, it would be speculative to anticipate how other aspects of this project would work to reduce energy consumption, such as pedestrian and bicycle trails and passive recreation and open space. Comparing to the Proposed Project, the General Plan Alternative would result in greater energy use since there would be more vehicle trips (see Chapter 4.13, Transportation and Circulation of this EIR) and less opportunity to provide for mixed use residential development (which equates to reduced Vehicle Miles Traveled).

Geology and Soils Resources

Geology: Both the General Plan Alternative and the Proposed Project would be required to comply with the provisions of the California Building Code, which includes design requirements to mitigate the effects of potential hazards associated with seismic ground shaking. Further, both scenarios would be reviewed by the City for conformance with the General Plan, Municipal Code, and other regulations that address seismic safety issues and would be required to provide adequate mitigation for existing and potential geologic hazards identified. With the implementation of the policies in the General Plan, as well as applicable State and City codes, potential geological impacts.

Soils: Both the General Plan Alternative and the Proposed Project would provide for development and associated improvements that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Since the General Plan Alternative is expected to result in greater building and parking areas this scenario would result in increased soil disturbance as compared to the Proposed Project. However, both scenarios will be evaluated for conformance with the California Building Code, General Plan, Municipal Code, Lake County Clean Water Program Low Impact Development Standards Manual, and other regulations that address soil erosion so that the impact on soils under both scenarios would be less than significant.

Conclusion: Overall, the Proposed Project would result in fewer geologic and soil/erosion impacts as compared to the General Plan Alternative; however, impacts would still occur and similar mitigation would be required under both scenarios resources would be less than significant as long as mitigation measures are followed (see Chapter 4.5, Mitigation Measure 4.5-1 in this EIR).

Hazards, Hazardous Materials, and Wildfire

Hazards and Hazardous Materials: The General Plan Alternative would involve increased building and related improvement areas on the site during construction and operation as compared to the Proposed Project. However, the level of hazards would be dependent on the specific uses and methods of construction under the General Plan Alternative. Therefore, it is impossible to determine what scenario would result in greater hazard impacts. Significant risks to the public or workers are not expected with either scenario based on the assumption that these products are used, transported, and disposed of properly in accordance with the handling instructions on their labels and in accordance with State and federal regulations. Because both scenarios would comply with existing laws and regulations regarding hazardous emissions, materials, substances, or waste, either scenario would result in a less-than-significant impact related to hazardous emissions or handling hazardous materials.

Wildfire: Under both the General Plan Alternative and Proposed Project impacts to wildfire danger would be similar. With adherence to State and local fire safety requirements, the Proposed Project and the General Plan Alternative would result in a less-than-significant impact related to exposing people or structures to the risk of loss, injury, or death involving wildland fires.

Conclusion: Overall, the Proposed Project would result in less impacts related to hazards and hazardous materials and wildfires with mitigation as compared to the General Plan Alternative (refer to Chapter 4.7, Mitigation Measures 4.7-1 through 4.7-9 in this EIR).

Hydrology and Water Quality

Construction and operations of both the General Plan Alternative and the Proposed Project would result in impacts to surface water quality from stormwater runoff. Both scenarios would result in new impervious areas associated with streets, driveways, parking lots, and buildings. Since the General Plan Alternative will have a larger surface coverage than the Proposed Project, impacts on stormwater quality from runoff is expected to be greater from the General Plan Alternative. However, both scenarios would be required to comply with mandated stormwater control measures to reduce surface water quality impacts.

Both the General Plan Alternative and the Proposed Project will result in increased impervious surfaces that could reduce groundwater infiltration capacity compared to the existing conditions. In both scenarios, onsite flows would be conveyed to the retention basins which would allow for infiltration at a similar rate as currently exists on the site. Therefore, potential impacts to groundwater recharge such that the project may impede sustainable groundwater management of the basin are not anticipated.

Conclusion: The General Plan Alternative would result in greater impacts on hydrology and water quality than the Proposed Project due to the larger scale of development. Overall, both the General Plan Alternative and the Proposed Project would be subject to mandatory drainage improvements to reduce potential water quality impacts to less than significant levels.

Land Use and Planning

The General Plan identifies the site for development of a regional shopping center whereas the Proposed Project show development of a reduced version of this with mixed use residential. As discussed in further detail in Section 4.9, Chapter 4. of this EIR regarding Land Use and Planning, and based on the General Plan Housing Element, which encourages residential development, the Proposed Project would achieve the goals and objectives of the General Plan by creating a regional shopping center with residential development. Implementation of the new Development Manual would ensure that development and uses on the site under the Proposed Project would reduce potential land use conflicts on the site as compared to the General Plan Alternative that would rely on the existing zoning code for addressing land use development on the site.

Under the Proposed Project, infrastructure is planned with a backbone roadway, restricted land use, and development standards under the Planned Development Manual. Under the General Plan Alternative, development could be more piecemeal with development occurring without planned future improvements, such as roadways, drainage, open space, and infrastructure support (such as water and sewer services).

Conclusion: Overall, the General Plan Alternative could have greater land use impacts on the site as compared to the Proposed Project since the General Plan Alternative would rely on the zoning code for land use compliance as compared to implementing the Development Manual.

Noise

Both the General Plan Alternative and the Proposed project will increase noise levels from increased traffic volumes, construction, and operations. However, the General Plan Alternative will result in much higher traffic volumes which equate to higher noise levels. As indicated in Section 4.10, Chapter 4 of this EIR noise impacts from the particular land uses and construction under the Proposed Project can be mitigated to a level of less than significant.

Conclusion: Overall, the General Plan Alternative would be expected to result in greater noise levels as compared to the Proposed Project primarily due to comparatively increased traffic volumes; however, impacts would still occur and similar mitigation would be anticipated for the General Plan Alternative (refer to Chapter 4.10, Mitigation Measures 4.10-1 through 4.10-3 in this EIR).

Population and Housing

The General Plan Alternative would result in more commercial activity that would generate a greater demand for housing than the Proposed Project which includes development of over 250 housing units. The Proposed Project will partially offset the demand for additional housing from the commercial development of the project as compared to the General Plan Alternative. With a pedestrian bridge over Highway 53 under the Proposed Project, there would be improved connectivity between neighborhoods as compared to the General Plan Alternative which does not have this feature. Both scenarios would be considered infill development so expansion of public service facilities, such as roads, water, and sewer, which can induce growth, would be limited to the Project site and not extend beyond the project site. Neither scenario would remove or displace residential units.

Conclusion: The Proposed Project would result in development of more housing units (250) as compared to the General Plan Alternative (3 housing units). Consequently, the Proposed project would improve housing conditions in the region as compared to the General Plan Alterative.

Public Services and Utilities

Chapter 4.12, Public Services and Utilities, includes a detailed discussion of the impacts the General Plan Alternative might have on water and wastewater services as compared to the Proposed Project. As noted here, due to the increased demand from residential uses in both categories, the General Plan Alternative would have less of an impact on water and wastewater services as compared to the Proposed Project due to the increased demand and use of water and sewer from the residential component. However, a study of water capacity for the project indicates that the Proposed Project would not result in significant impacts to water services. This section also shows sufficient wastewater capacity for serving the Proposed Project.

Conclusion: The General Plan Alternative could have less of an impact on water and wastewater services as compared to the Proposed Project, primarily due to the residential land use component in the Proposed Project. However, there is sufficient capacity for water and wastewater service under both the General Plan Alternative and the Proposed Project. Both the General Plan Alternative and the Proposed Project would result in less than significant impacts related to public services and utilities.

Transportation and Circulation

The General Plan Alternative would significantly increase traffic volume as compared to the Proposed Project. As a result, the General Plan Alternative would be expected to result in more traffic and greater impacts such as safety, traffic queuing, and emergency access. Without a particular circulation plan for future development of the site under the General Plan Alternative, it would be too speculative to compare what specific circulation impacts would be as compared to the Proposed Project, however.

Shifting to Vehicle Miles Traveled Threshold: The General Plan EIR considered Level of Service (LOS) as the measure for determining level of environmental significance consistent with the California Environmental Quality Act at that time. However, CEQA was amended in 2020 through Senate Bill 743 (SB 743) to shift away from using Level of Service (LOS) to measure significant environmental impacts of traffic. California jurisdictions are required to use Vehicle Miles Traveled (VMT) as the primary metric for evaluating transportation impacts under CEQA. As noted in the project traffic impact study and discussed in more detail in Section 4.13, Chapter 4 of this EIR, there are limited existing retail outlets in Clearlake, and Lake County in general, meaning residents must leave the County and travel more than one hour to Ukiah, Santa Rosa, or Napa to purchase certain goods. The provision of more retail establishments in Clearlake, as proposed for either the General Plan Alternative or the Proposed Project would reduce the number of interregional trips Lake County residents have to make to nearby counties, which would have a beneficial impact on VMT. The project is located in a pre-screened area in the Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study for Lake and is located in a centralized location near the center of the region's largest housing supply. According to the TIS both the Project and the General Plan development scenarios would be screened out for VMT. Therefore, more detailed VMT analysis of the Proposed Project, or for the General Plan is not needed to determine levels of environmental significance for VMT.

Conclusion: Overall, the General Plan Alternative would result in greater traffic impacts than the Proposed Project, primarily due to increase traffic volumes when comparing trip rates for both scenarios. Also, with regard to VMT, since the project site is located in a pre-screened area in the Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study for Lake and has been screened out for VMT. Since the Proposed Project would have more residential the Proposed Project would benefit more from reduced VMT as compared to the General Plan Alternative. However, neither the General Plan Alternative nor the Proposed Project would be considered to result in significant VMT. Since the Proposed Project would result in fewer trips beyond Clearlake than the General

Plan Alternative, the Proposed Project would have a greater VMT benefit than the General Plan Alternative.

Tribal Cultural Resources

Since the General Plan Alternative would be expected to result in increased building coverage and greater site disturbance than the Proposed Project, the General Plan Alternative would add more potential impacts on unknown cultural tribal resources than the Proposed Project (see Cultural Resources above which is separate from Tribal Cultural Resources).

Conclusion: Overall, the General Plan Alternative would result in similar impacts related to tribal resources as compared to the Proposed Project. Although, given that there would be more site disturbance under the General Plan Alternative, there could be increased risk of potential impacts to unknown resources. In both scenarios impacts on cultural and tribal resources would be less than significant as long as mitigation measures are followed (see Chapter 4.14, Mitigation Measures 4.14-1 through 4.14-3 in this EIR).

Reduced Development Intensity and Density Alternative (RDIDA)

In accordance with CEQA the EIR must develop a less impacting alternative based on a "rule of reason" alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the proposed project (CEQA Guidelines Section 15126.6(f)). This alternative scenario consists of a similar project on the same site with increased open space, reduced dwelling units and reduced commercial and health care building area as follows:

The Reduced Intensity Alternative (RDIDA) description is based on reducing the overall Environmental impacts across the board. This alternative was derived by evaluating different levels of impacts to air quality, which under the Proposed Project results in significant and unavoidable for ROG and NOG air emissions. The RDIDA was designed to reduce emissions-related impacts to air quality to a level of less than significant. From this alternative, other impacts were also compared with the Proposed Project. The RDIDA is described as follows.

Reduced Development Intensity Density Alternative (RDIDA) Description:

Total commercial uses = 217,652

- Regional shopping center 149,250 sf
- Sit down restaurant 10,000 sf
- Fast food 4,000 sf
- Hotel and meeting room 48,402
- Amphitheater 6,000 sf
- 100 residential units (86 apartments and 14 condominiums)

- 11.93 ac landscaping included as maintenance of "grazing land" for carbon sequestration
- Conserve all oaks (3.65 ac)
- Remove convenience market with gas pumps

RIDA and Project Objectives

The Reduced Development Intensity and Density Alternative (*RDIDA*) may conflict with a number of project Objectives but may be considered feasible CEQA Guidelines Section 15126.6(f) "rule of reason" which indicates that EIRs must analyze a "reasonable range of alternatives" to a proposed project that are limited to those that would "avoid or substantially lessen any of the significant effects" of the project. This is often called the "rule of reason," and the EIR must analyze enough alternatives to permit a "reasoned choice," which should also be an alternative that would "feasibly attain most of the basic project objectives. Although the RDIDA will result in considerable reductions in environmental impacts as compared to the Proposed Project, some of the project objectives may not be achieved. The *RDIDA* may fail to fully achieve a number of primary project objectives as follows:

- Develop a destination for visitors and community by attracting jobs and commerce to the area- Comment: *RDIDA would result in a much smaller project that may not significantly attract visitors and the community to the extent desired.*
- Develop a fiscally beneficial project that provides sufficient revenues to maintain municipal services- Comment: *It is uncertain whether or not RDIDA could be developed at this lower scale to fiscally support required municipal services.*
- Promote local businesses and develop retail stores that will accommodate the retail demands of the Clearlake community and diversify products and services offered in the community-Comment: *The RDIDA may not have sufficient scale to accommodate retail demands as contemplated under the project or as contemplated under the General Plan as a regional center.*
- Provide significant economic benefits to the City and community in terms of diverse employment opportunities and increased sales tax revenues- *Comment: RIDA would result in a much smaller project that may not significantly provide diverse employment opportunities and increased tax revenues.*

The *RDIDA* would result in substantially reduced environmental impacts as compared to the Proposed Project. For example, the *RDIDA* would result in reduced vehicle trips, but the actual number would be unknown as compared to the Proposed Project, because there may be greater reliance on the use of autos with less employment opportunities in relation to live work on the same site. Although it would be unknown what the exact impacts to biology, drainage, and infrastructure support, it would be expected that the *RDIDA* could be designed to reduce building and paved surface coverage as compared to the Proposed Project and there would be less of a demand on public services, such as water and sewer and possibly less tree and vegetation removal depending on project design. The following provides a more detailed comparison between the *RDIDA* and the Proposed Project:

Aesthetics

The *RDIDA* would result in significantly less development than the Proposed Project and potentially reduced aesthetic impacts due to reduced visual massing of development and reduced lighting glare. Both scenarios would transform vacant and/or underused land that was previously used as an airport to a variety of development of buildings, parking, open space, and parking. As shown in Chapter 4.1 of the EIR, Aesthetics, through renderings of the project as visioned to be constructed, the Proposed Project would not result in significant impacts scenic vistas nor degrade the existing visual character or quality of public views of the site. The Proposed Project includes the Development Manual that provides detailed development standards and guidelines for future development of the site that will ensure the project will be attractive. The RDIDA potentially could significantly degrade the existing visual character or quality of public views if development is conducted piecemeal based on the 40+ different parcels that consist of the site. In both scenarios, site development will result in lighting glare from daytime glare off building materials and vehicles (glass and metal) and nighttime lighting from exterior lighting. Again, the Design Manual includes parameters for lighting to reduce light glare to a less than significant level. However, under the RDIDA lighting glare could result in more significant glare.

Conclusion: Overall, impacts related to aesthetics are expected to be less than under the RDIDA as compared to the Proposed Project due to the reduced development/intensity scale; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the *RDIDA*.

Air Quality

The *RDIDA* would result in reduce air quality impacts primarily due to reduced vehicle trips from a reduction in dwelling units, reduction in commercial/office/institutional uses, and particularly due to the omission of drive-thru restaurants. Chapter 4, Section 4.2, Air Quality, of this EIR concludes that the Proposed Project would result in less than significant air quality impacts except for two criteria pollutants, Nitrogen Dioxide (NOX) and Reactive Organic Gas (ROG). Significant thresholds are based on the Bay Area Air Quality Management District's (BAAQMD) CEQA threshold of significance. As shown in Table 6.1-1 below, the Proposed Project exceeds air quality thresholds of significance for these criteria pollutants due primarily from mobile sources (such as vehicle travel). Since the *RDIDA* would result in less mobile emissions as compared to the Proposed Project, the *RDIDA* would also result in less than significant air quality impacts. Using the same measure of analysis for air quality impacts for *RDIDA*, and as shown in Table 6.1-2, these criteria pollutants are reduced to a level of less than significance.

Table 6-1: Average Operational Emissions Proposed Project

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs./day	tons/yr	lbs./day	tons/yr	
ROG	**136 (148.0)**	**24.8 (26.9)**	54	10	***Yes***
NO_X	**60.4 (65.0)**	**11.0 (11.9)**	54	10	***Yes***
Source: CalEEMod, July 2025. (see Appendix D).					

Table 6-2: Average Operational Emissions RDIDA

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs./day	tons/yr	lbs./day	tons/yr	
ROG	**49.45**	**9.24**	54	10	*No*
NO_X	**15.14**	**2.76**	54	10	*No*
Source: CalEEMod, July 2025. (see Appendix D).					

Conclusion: Due primarily to reduce mobile emission sources, the *RDIDA* would result in less than significant air quality impacts as compared to the Proposed Project; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the RIDA.

Biological Resources

The RDIDA would propose reduced development intensity and would not locate development within more biologically sensitive areas, such as the oak tree and ephemeral and intermittent drainage areas on the site. However, both the RDIDA and Proposed Project would incorporate mitigation, such as tree replacement and erosion control to a level of less than significant.

Conclusion: Overall, impacts related to biological resources are expected to be less under the RDIDA as compared to the Proposed Project; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the RDIDA.

Climate Change and Energy

Climate Change: The RDIDA would result in reduced Green House Gas (GHG) emissions as compared to the Proposed Project due to the reduced size and, particularly, the reduced mobile emissions as described in the Air Quality section above. Mitigation measures referenced in the Air Quality section for the Proposed Project also apply to GHG impacts and would also apply to the RDIDA.

Conclusion: Overall, impacts related to GHG emissions would be less under the RDIDA as compared to the Proposed Project; however, impacts would still occur and similar mitigation as required for the Proposed Project would be required for the RDIDA (refer to Chapters 4.2 and 4.6, Mitigation Measures 4.2-1 through 4.2-3).

Energy: Both the RDIDA and the Proposed Project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. The Proposed Project would involve the provision of sidewalks throughout the project site, as well as multi-use trails to allow for passive recreation, such as walking, jogging, and bicycling. These improvements would provide pedestrian and bicycle connectivity within the project site, thereby helping to discourage driving and reducing vehicle trips and associated transportation energy demand. Although the RDIDA would also provide sidewalks throughout the site, it would be speculative to anticipate how other aspects of this project would work to reduce energy consumption, such as pedestrian and bicycle trails and passive recreation and open space. Compared to the RDIDA, the Proposed

Project would result in greater energy use since there would be more vehicle trips (see chapter 4, section 4.3, Transportation and Circulation of this EIR).

Conclusion: Overall, impacts related to energy would be less than under the RDIDA than the Proposed Project, however in both scenarios both would result in less than significant energy impacts.

Cultural Resources and Paleontological Resources

Since the RDIDA would be expected to result in reduced building coverage and reduced site disturbance than the Proposed Project, the RIDA would lessen the risk to potential disturbance, and consequently have less impacts on potential, unknown cultural and/or paleontological resources than the Proposed Project.

Conclusion: Overall, the RDIDA would result in similar impacts related to cultural and paleontological resources as compared to the Proposed Project but since the RDIDA is a reduced size it is expected that the RDIDA would have less of a potential impact on potential, unknown cultural and paleontological resources. In both scenarios, however, similar mitigation measures would apply as referenced in Chapter 4.4, Cultural Resources and Chapter 4.5 of this EIR (see Chapter 4.4, Mitigation Measures 4.4-1 through 4.4-3 and Chapter 4.5, Mitigation Measures 4.5-2 and 4.5-3 in this EIR).

Geology and Soils

Geology: Both the RDIDA and the Proposed Project would be required to comply with the provisions of the California Building Code, which includes design requirements to mitigate the effects of potential hazards associated with seismic ground shaking. Further, both scenarios would be reviewed by the City for conformance with the General Plan, Municipal Code, and other regulations that address seismic safety issues and would be required to provide adequate mitigation for existing and potential geologic hazards identified. With the implementation of the policies in the General Plan, as well as applicable State and City codes, potential geological impacts.

Soils: Both the RDIDA and the Proposed Project would provide for development and associated improvements that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Since the RDIDA is expected to result in less building and parking areas this scenario would result in reduced soil disturbance as compared to the Proposed Project. However, both scenarios will be evaluated for conformance with the California Building Code, General Plan, Municipal Code, Lake County Clean Water Program Low Impact Development Standards Manual, and other regulations that address soil erosion so that the impact on soils under both scenarios would be less than significant.

Conclusion: Overall, the RDIDA would result in fewer impacts related to geologic and/or soil/erosion as compared to the Proposed Project; however, impacts would still occur and similar

mitigation would be required under both scenarios (refer to Chapter 4.5, Mitigation Measures 4.5-1 to 4.5-3 in this EIR).

Hazards, Hazardous Materials, and Wildfire

Hazards and Hazardous Materials: The RDIDA would involve reduced building and related improvement areas on the site during construction and operation as compared to the Proposed Project. However, the level of hazards would be dependent on the specific uses and methods of construction under the RDIDA. Significant risks to the public or workers are not expected with either scenario based on the assumption that these products are used, transported, and disposed of properly in accordance with the handling instructions on their labels and in accordance with State and federal regulations.

Conclusion: Overall, due to the reduced development and operation scale of the RDIDA as compared to the Proposed Project, the RDIDA would result in reduced impacts to hazards and hazardous materials. However, both the RDIDA and the Proposed Project would result in less than significant impacts related to hazards and hazardous materials; however, impacts would still occur at a less than significant level.

Hydrology and Water Quality

Construction and operations of both the RDIDA and the Proposed Project would result in impacts to surface water quality from stormwater runoff. Both scenarios would result in new impervious areas associated with streets, driveways, parking lots, and buildings. Since the RDIDA will have less impervious surface coverage than the Proposed Project, impacts on stormwater quality from runoff is expected to be less under the RDIDA. However, both scenarios would be required to comply with mandated stormwater control measures to reduce surface water quality impacts.

Both the RDIDA and the Proposed Project will result in increased impervious surfaces that could reduce groundwater infiltration capacity. In both scenarios, onsite flows would be conveyed to the retention basins which would allow for infiltration at a similar rate as currently exists on the site. Therefore, potential impacts to groundwater recharge such that the project may impede sustainable groundwater management of the basin are not anticipated.

Conclusion: Overall, due to the reduced development and operation scale of the RDIDA as compared to the Proposed Project, the RDIDA would result in reduced impacts to hydrology and water quality. However, both the RDIDA and the Proposed Project would be subject to mandatory drainage improvements to reduce potential water quality impacts to less than significant levels.

Land Use and Planning

The RDIDA presents a reduced development intensity on the project site as compared to the Proposed Project. The RDIDA would result in reduced housing and commercial development of the site as compared to the Proposed Project. Based on community land use objectives of the

General Plan, the RDIDA would not meet land use or planning objectives in that it would result in less housing and commercial development as compared to the Proposed Project

Conclusion: Overall, the RDIDA could have greater land use impacts on the site as compared to the Proposed Project since the RDIDA would not result in the land use and planning objectives of the community.

Noise

Both the RDIDA and the Proposed project will increase noise levels from increased traffic volumes, construction, and operations. However, as noted above in the air quality section, the RDIDA will result in much lower traffic volumes which equate to lower noise levels. Noise impacts from the particular land uses and construction under the Proposed Project and under RDIDA can be mitigated to a level of less than significant. Although it would be too speculative to determine the exact noise impacts from RDIDA, possible noise generating uses from this alternative would need to also be mitigated in accordance with the General Plan Noise Element.

Conclusion: Overall, the RDIDA would be expected to result in less noise levels as compared to the Proposed Project primarily due to comparatively increased traffic volumes; however, impacts would still occur and similar mitigation would be anticipated for the General Plan Alternative (refer to Chapter 4.10, Mitigation Measures 4.10-1 through 4.10-3).

Population and Housing

The RDIDA would result in less commercial activity that would generate less demand for housing than the Proposed Project which includes development of over 250 housing units, as compared to the RDIDA which contemplates development of 100 housing units. Similarly, with RDIDA, the Proposed Project will partially offset the demand for additional housing from the commercial development of the project. However, the Proposed Project features a pedestrian bridge over Highway 53 that would improve connectivity between neighborhoods. Under RDIDA, it is not likely that there would be sufficient demand for such a bridge connection. Both scenarios would be considered infill development so expansion of public service facilities, such as roads, water, and sewer, which can induce growth, would be limited to the Project site and not extend beyond the project site. Neither scenario would remove or displace residential units.

Conclusion: The RDIDA would result in less housing development than the Proposed Project. Also, the RDIDA would not improve neighborhood connection since it would not include development of the pedestrian bridge across Highway 53. Both RDIDA and the Proposed Project will result in less than significant impacts to population and housing.

Public Services and Utilities

Dur to the reduced development and operational scale the RDIDA would result in reduced public service and utilities impacts as compared to the Proposed Project. However, Chapter 4.12, Public Services and Utilities, includes a detailed discussion of the impacts the that the Proposed Project

would have on water and wastewater and demonstrates that there is adequate capacity to serve the Proposed Project and, therefore, due to the reduced scale there would be adequate capacity to serve the RDIDA

Conclusion: The RDIDA would have less of an impact on water and wastewater services as compared to the Proposed Project due to the reduced development and operation scale of the RDIDA. Both the RDIDA and the Proposed Project would result in less than significant impacts related to public services and utilities; however, impacts would still occur and similar mitigation would be required for both scenarios.

Transportation and Circulation

The RDIDA would result in less traffic volume as compared to the Proposed Project. As a result, the RDIDA would be expected to result in less traffic and less impacts such as safety, traffic queueing, and emergency access.

Shifting to Vehicle Miles Traveled Threshold: The General Plan EIR considered Level of Service (LOS) as the measure for determining level of environmental significance consistent with the California Environmental Quality Act at that time. However, CEQA was amended in 2020 through Senate Bill 743 (SB 743) to shift away from using Level of Service (LOS) to measure significant environmental impacts of traffic. California jurisdictions are required to use Vehicle Miles Traveled (VMT) as the primary metric for evaluating transportation impacts under CEQA.

Both RDIDA and the Proposed project will increase VMT from increased per capita vehicle miles traveled, construction, and operations. However, as noted above RDIDA should result in much lower traffic volumes than the Proposed Project. Similarly with the Proposed Project, the RDIDA would not result in significant VMT based on the same analysis and approach evaluated in Chapter 4, Section 4.13 of this EIR.

Conclusion: Although overall volume of VMT would be greater under the Proposed Project than the RDIDA, because the RDIDA would result in less retail, hotel rooms, and medical facilities, it would not reduce per capita VMT as much as the Proposed Project because the RDIDA would not reduce as many trips that require leaving the Clearlake area for such services, Further, the Proposed Project incorporates more housing that helps connect residents with jobs and reduce VMT. While both the RDIDA and Proposed Project would have less than significant impacts, the Proposed Project would have a more beneficial impact on VMT as compared to the RDIDA.

Tribal Cultural Resources

Since the RDIDA would be expected to result in reduced building coverage and reduced site disturbance as compared to the Proposed Project, the RDIDA would have fewer potential impacts on unknown tribal cultural resources than the Proposed Project.

Conclusion: Since the RDIDA is a reduced size, it is expected that the RDIDA would have less of a potential impact on unknown tribal cultural resources. In both scenarios, however, similar

mitigation measures would apply as referenced in Chapter 4.4, Cultural Resources of this EIR (refer to Mitigation Measures 4.4-1 through 4.4-3).

6.4 Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, if the No Project (No Build) Alternative is considered the environmentally superior alternative because the project site is assumed to remain under current conditions for the alternative, then CEQA requires creation of a reduced alternative. Therefore, the Reduced Development Intensity and Density (RDIDA) was created to present an environmentally superior alternative. Comparisons of the alternatives is summarized in Table 6-1 below.

Table 6-1 Alternative Environmental Impacts Comparison

Resource Area	Proposed Project	General Plan Alternative	Reduced Development Intensity and Density Alternative
Aesthetics	LTS	LTS-More	LTS-Less
Air Quality	SU	LTS-More	LTSWM-Less
Biological Resources	LTSWM	LTSWM-More	LTSWM-Less
Climate Change and Energy	LTSWM	LTSWM-More	LTSWM-Less
Cultural Resources	LTSWM	LTSWM-More	LTSWM-Less
Geology and Soils	LTSWM	LTSWM-More	LTSWM-Less
Hazards and Hazardous Materials and Wildfire	LTS	More	LTS-Less
Hydrology and Water Quality	LTS	More	LTS-Less
Land Use and Planning	LTS	More	LTS-Less
Noise	LTSWM	LTSWM-More	LTSWM-Less
Population and Housing	LTS	LTS-Less	LTS-Less
Public Services and Utilities	LTS	LTS-Less	LTS-Less
Transportation and Circulation	LTSWM	LTSWM-More	LTSWM-More
Tribal Cultural Resources	LTSWM	LTSWM-More	LTSWM-Less

Note:

NI = No Impact
LTS = Less than Significant
LTSWM = Less than Significant with Mitigation
SU = Significant and Unavoidable

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9 MITIGATION MONITORING & REPORTING PROGRAM

9.1 Introduction

Section 15097 of the California Environmental Quality Act (CEQA) requires all State and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a "mitigated negative declaration" or specified environmental findings related to environmental impact reports.

The following is the Mitigation Monitoring and Reporting Program (MMRP) for the Clearlake Airport Redevelopment Project (Proposed Project). The intent of the MMRP is to ensure implementation of the mitigation measures identified within the EIR as specifically necessary for the Proposed Project. Unless otherwise noted, the cost of implementing the mitigation measures as prescribed by this MMRP shall be funded by the applicant.

9.2 Compliance Checklist

The MMRP contained herein is intended to satisfy the requirements of CEQA as they relate to the EIR prepared for the Proposed Project. This MMRP is intended to be used by City of Clearlake staff and any mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMRP were developed in the EIR.

The EIR presents a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA Guidelines, Section 15370, as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMRP is to ensure the implementation of all specified adopted mitigation measures. The MMRP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns. Where existing laws, statutes and regulations apply, they would also be included in mitigation monitoring efforts during project implementation.

Monitoring and documenting the implementation of mitigation measures will be coordinated by the City of Clearlake Community Development Department. The table attached to this report

identifies the mitigation measures, the monitoring action for each mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action. The applicant will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMRP. The City will be responsible for monitoring compliance.

9.3 Mitigation Monitoring and Reporting Program

The following table indicates the mitigation measure number, the impact the measure is designed to address, the measure text, responsible party, monitoring agency, and implementation schedule or timing.

Table 9-1: Mitigation Monitoring and Reporting Program

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
AQ	***Air Quality***			
Impact 4.2-2: Proposed project would 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. **a) Construction-Related NOX Emissions**	**Mitigation Measure 4.2-1: Reduce Construction-Related NOX Emissions.** The following notes shall be included on all grading and/or construction plans and shall be implemented accordingly during grading and/or construction operations. Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading and construction plans by the City of Clearlake Community Development Department. • All off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site. • Construction contractors shall utilize Tier 4 Final certified engines or better and Level 3 diesel filters during all phases of development. Compliance must be demonstrated with submittal the equipment inventory. • Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB. • The construction contractor must notify LCAQMD prior to beginning construction activities and prior to engine use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet reciprocating internal combustion engines (RICE) NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for compression ignition (CI, i.e., diesel) engines and must meet local regulations.	**Construction Contractor**	**City of Clearlake Community Development Department / Lake County Air Quality Management District (LCAQMD)**	Prior to grading/construction (plan review) and during grading/construction operations

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.2-2 cont. **b) Construction-Related Fugitive Dust Emissions**	**Mitigation Measure 4.2-2: Reduce Construction-Related Fugitive Dust Emissions.** The following measures shall be implemented for all grading and/or construction on the project site to reduce fugitive dust emissions and shall be implemented accordingly during grading and/or construction operations. Conformance with these requirements shall be included as notes on all construction plans and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department: • Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust. • Driveways, access roads and parking areas shall be surfaced in a manner that minimizes dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvements shall adhere to all applicable federal, State and local agency requirements. • Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District. • During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site. • Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust and/or landscaped or hydro-seeded. All BMPs shall be routinely inspected and maintained for the life of the project. • Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls. • If construction or site activities are conducted within Serpentine soils, a Serpentine Dust Control Plan would be required. Any parcel with serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.	**Construction Contractor / Project Applicant**	**City of Clearlake Community Development Department / LCAQMD**	Prior to grading/construction (plan review) and continuously during grading/construction operations

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	• Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. • Significant dust may be generated from increased vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the District recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilize water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limit • During construction, emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area, shall be controlled so that dust does not remain visible in the atmosphere beyond the boundary line of the emission source. • When wind speeds result in dust emissions crossing property lines, and despite the application of dust control measures, grading and earthmoving operations shall be suspended and inactive disturbed surface areas shall be stabilized. • All vehicle speeds on unpaved roads shall be limited to 25 mph. • Site development and vegetation disposal shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for groundcover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal.			

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.2-2 cont. **c) Operations-Related Emissions**	**Mitigation Measure 4.2-3: Reduce Operations-Related Emissions**. Prior to the issuance of improvement and building permits, as relevant (i.e., infrastructure, residential, or commercial), documentation shall be provided to the City of Clearlake Community Development Department that the following measures have been achieved through project design: *Project-Wide Measures* • Use energy-efficient lighting that will reduce indirect criteria pollutants and GHG emissions. Using energy-efficient lighting will reduce energy usage and, thus, reduce the indirect GHG emissions from the project. Energy-efficient lighting includes adaptive lighting systems or systems that achieve energy savings beyond those required by Title 24 lighting requirements to the maximum extent feasible. • Use low-flow appliances and fixtures. • Use drought-tolerant and native vegetation. • Use low VOC paint for parking areas and the interiors and exteriors of the both residential and non-residential buildings. • Provide sufficient bicycle parking per City standards. • Provide traffic calming measures as shown on the approved site plan. • Provide pedestrian network improvements, including sidewalks on all street frontages, as shown on the approved site plan. • Provide wildfire resilience and management site-wide through compliance with Public Resources Code 4291 and other local fire protection standards. • Require project contributions to transportation infrastructure improvements commensurate with project impacts. *Residential Measures* • Provide net zero renewable electrical energy through installation of solar photovoltaic systems consistent with the 2022 Building Energy Efficiency Standards. This may be achieved through the use of rooftop solar or proposed on-site photovoltaic systems, or the equivalent renewable energy source. • Use water efficient landscapes and native/drought-tolerant vegetation. • Use energy-efficient appliances in the residences where available. These include appliances that meet USEPA's Energy Star Criteria. • Use energy efficient residential boilers where applicable • Install electric ranges in place of propane-powered ranges • Provide electric heaters only. Wood-burning devices and propane fireplaces shall be prohibited in residential development. • Install electric water heaters instead of propane water heaters.	**Project Applicant/Developer**	**City of Clearlake Community Development Department**	Prior to the issuance of improvement and building permits

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	Commercial Measures • Install on-site charging units for electric vehicles consistent with parking requirements in California Green Building Standards Code Section 5.106.5.2. • Install energy-efficient commercial packaged boilers. • Install electric water heating instead of gas water heating for some or all of the project's hot water needs, to the extent such technology is readily available and commercially practicable.			
Impact 4.2-5: Proposed project, in combination with other cumulative development, cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation, or expose the public to substantial pollutant emissions or odors.	**Mitigation Measures 4.2-1 through 4.2-3** (See Impact 4.2-2)		**City of Clearlake Community Development Department / LCAQMD**	Prior to grading/construction (plan review) and during grading/construction operations
BIO	***Biological Resources***			
Impact 4.3-1: Proposed project will have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW. **a) Potential impacts to western burrowing owl**	**Mitigation Measure 4.3-1:** Conduct pre-construction surveys for western burrowing owl. Prior to any earth disturbance and prior to the issuance of any grading permits within areas on the site determined to have potential marginal habitat for the Burrowing Owl (see Figure 4.3-8 Burrowing Owl Marginal Habitat Map), a California Department of Fish and Wildlife (CDFW)-approved biologist shall conduct pre-construction (i.e., take avoidance) surveys for western burrowing owl. The survey shall include two site visits: one within 14 days of construction start, and one within 48 hours of construction start. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines, which include the following: • Within the project area where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint, as accessible, to identify burrows and	**Project Applicant/California Department of Fish and Wildlife (CDFW)-approved Biologist**	**City / CDFW**	Prior to earth disturbance/grading permits; surveys required within 14 days and 48 hours of construction start

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	owls. • Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. • During the breeding season (February 1 – August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. • During the nonbreeding season (September 1 – January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. • If burrowing owl is detected on-site during preconstruction surveys or during construction, no ground-disturbing activities within a minimum 200-meter (approximately 656-foot) avoidance buffer shall occur around occupied burrows during the breeding season (February 1–August 31), unless authorized by the California Department of Fish and Wildlife. During the non-breeding season (September 1–January 31), no ground-disturbing activities within a minimum 50-meter (approximately 164-foot) avoidance buffer shall occur around occupied burrows, unless authorized by CDFW. • If occupied burrow avoidance is infeasible during the non-breeding season or during the breeding season where resident owls have not yet begun egg-laying or incubation, or where the juveniles are foraging independently and capable of independent survival, CDFW shall be consulted to develop a Burrowing Owl Exclusion and Mitigation Plan. The plan shall differentiate strategies for active burrows found on the project site vs. active burrows found adjacent to the project site. For example, an Exclusion and Mitigation Plan strategy may include: • Passive exclusion of burrowing owl from burrows within the project site using one-way doors. • Excavation of potential burrowing owl burrows within the project site that are confirmed to be empty of burrowing owl adults and/or young. • Creation of artificial burrowing owl burrows within the project site to offset the loss of known occupied burrowing owl burrows. • Acquisition of burrowing owl conservation lands and/or bank credits.			
Impact 4.3-1 cont. **b) Potential impacts to nesting migrating birds and raptors**	**Mitigation Measure 4.3-2:** Conduct pre-construction nesting surveys for migrating birds and raptors. This mitigation measure shall be placed as a note on all construction plans for woodland areas referenced on Figure 4.3-6, Woodland Areas of the Project Area and shall be implemented as follows:	**Project Applicant/CDFW-approved Biologist**	**City / CDFW**	Prior to construction (no more than 7 days prior if occurring between Feb 15 - Sept 1)

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	Development activities that occur during the breeding season could disturb or remove occupied nests of migratory birds or raptors, which could occur in any structures or vegetation on the site, including but not limited to grasses, shrubs, and trees. If construction activities take place from September 2 through February 14 (outside the typical bird breeding/nesting season for the area), no further mitigation is required. If construction activities take place during the typical bird breeding/nesting season for the area (February 15 through September 1), then no more than seven days prior to initiation of construction, pre-construction nesting bird surveys at the project site shall be conducted by a qualified biologist and would be based on habitat type, habitat quality, and type of disturbance proposed within or adjacent to nesting habitat, but would be a minimum of 500 feet from any area of disturbance. If work stops for more than seven days during any part of the construction process, an additional pre-construction survey shall be required to meet these parameters within seven days of the onset of additional work. If any nesting raptors or protected birds are identified during such pre-construction surveys, trees, shrubs or grasslands with active nests should not be removed or disturbed and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a qualified wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.			
Impact 4.3-1 cont. **c) Potential impacts to special-status bats**	**Mitigation Measure 4.3-3:** Conduct pre-construction surveys for special-status bats. Prior to removal of any abandoned structure or trees within the project area and prior to the issuance of any demolition permit or tree removal permit, a pre-construction bat roosting survey prepared by a California Department of Fish and Wildlife (CDFW)-approved biologist shall be conducted to identify the presence or absence of roosting bats within any structures and within any woodlands. If any Townsend's big-eared bats, pallid bats, or long-eared myotis (or any other species of bat) are identified during roosting surveys, passive removal the roosting bats prior to disturbance to such structures or removal of trees associated with the woodland where the bats are roosting shall be implemented to avoid impacts to any bat species. Passive removal includes allowing roosting bats to freely leave the roost site (and structure). Once the roosting bats have been passively removed from the structure(s), the structure(s) would be closed off from recurring bat roosting, if possible, within the structure, and the proposed work within the structure(s) would no longer pose a risk to individuals of the species. Pre-construction roosting bat surveys are recommended to be implemented within 7 days of the removal of trees associated within the woodlands in the	**Project Applicant/CDFW-approved Biologist**	**City / CDFW**	Prior to issuance of demolition or tree removal permits; within 7 days of tree removal or structure disturbance

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	northern or southern sections of the project area and prior to any disturbance within any existing structure.			
Impact 4.3-2: Proposed project will have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**Mitigation Measure 4.3-4:** Obtain a Lake or Streambed Alteration Agreement if needed. Prior to any disturbance of the identified defined drainages on the project site, a Lake or Streambed Alteration Agreement Application shall be entered into with California Department of Fish and Wildlife (CDFW) for their determination as to whether a permit would be required for the crossing. If the developer is not the City, the Project developer shall provide evidence of compliance with this measure to the City Planning Department prior to the issuance of any grading or improvement permits for the site. This mitigation measure shall be placed as a note on all construction plans.	**Project Applicant/Developer**	**City / CDFW**	Prior to disturbance of drainages / issuance of grading or improvement permits
Impact 4.3-3: Proposed project will Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	**Mitigation Measure 4.3-2 p**rovides protections for migrating birds, ensuring consistency with the General Plan EIR (see Impact 4.3)	**Project Applicant/CDFW-approved Biologist**	**City / CDFW**	Prior to construction (no more than 7 days prior if occurring between Feb 15 - Sept 1)
Impact 4.3-6: Proposed project will cumulative loss of biological resources and the effects of ongoing urbanization in the region.	**Mitigation Measures 4.3-1 through 4.3-5 (see Impacts 4.3-1 through 4.3-4)**			

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
CUL	***Cultural Resources***			
Impact 4.4-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section15064.5?	**Mitigation Measure 4.4-1:** During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of the discovery. Significant historical cultural materials may include finds from the late 19th and early 20th centuries including structural remains, refuse deposits, isolated artifacts, etc. The cultural resources consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.	**Construction Contractor/Qualified Cultural Resources Consultant**	**City**	During construction (upon discovery)
Impact 4.4-2: The proposed Project would not, with mitigation, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	**Mitigation Measure 4.4-2:** The City Community Development Department (Planning and Building Divisions) shall ensure that a contractor awareness training program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: a) Federal and state regulations pertaining to cultural resources and tribal cultural resources. b) The subsurface indicators of resources that shall require a work stoppage; procedures for notifying the City of any occurrences.	**Qualified Professional Archaeologist / Construction Manager**	**City Community Development Department (Planning and Building Divisions)**	Prior to the start of all ground-disturbing activities

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	c) Project-specific requirements and mitigation measures. d) Enforcement of penalties and repercussions for non-compliance with the program. The training shall be prepared by a qualified professional archaeologist and may be Provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground disturbing equipment. The training will be completed once, prior to the start of all ground disturbing activities. All personnel who receive the training shall be required to sign a training roster. The Construction Manager shall provide a copy of the signed training roster for the City as proof of compliance.			
Impact 4.4-3: The proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries.	**Mitigation Measure 4.4-3:** If human remains are encountered, no further disturbance shall occur within 150 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains and associated cultural items shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Remains and associated cultural items shall be covered and protected from the elements, and no unauthorized individual may photograph remains or associated cultural items. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)" (MLD). The landowner shall engage in consultations with the MLD. The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the landowner does not agree with the recommendations of the MLD, then the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	**Project Applicant/Developer/Contractor**	**Lake County Coroner / Native American Heritage Commission (NAHC) / City of Clearlake**	During construction (upon discovery)

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.4-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and archaeological resources and/or human remains in archaeological contexts.	Implementation of **Mitigation Measures 4.4-1 and 4.4-3.**			
Impact 4.4-5: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of historic-era and archaeological resources and/or human remains in archaeological contexts.	Implementation of **Mitigation Measures 4.4-1 and 4.4-3.**			
GEO	***Geology and Soils***			
Impact 4.5-2: Substantial soil erosion or the loss of topsoil.	**Mitigation Measure 4.5-1:** Obtain Coverage Under the Construction General Permit from the Central Valley Regional Water Quality Control Board. Given that the Project would, as a whole, disturb over one acre, and is a common plan of development, each pro-ject applicant shall obtain a SWPPP from the Central Valley Regional Water Quality Con-trol Board and provide it to the Building Department prior to the onset of any construction activities and prior to issuance of grading and improvement permits.	**Project Applicant/Construction Contractor**	**City Building Department/ Central Valley Regional Water Quality Control Board**	• Prior to onset of construction activities and issuance of grading/improvement permits
Impact 4.5-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	**Mitigation Measure 4.5-2:** Paleontological Mitigation Plan for Areas shows in Figure 4.5-6. Any excavations exceeding five feet below ground surface with the Cache Formation (al) or the Lower Lake Formation (Il) shall first undergo review for paleontological	**Project Applicant/Construction Contractor/Principal Investigator (Qualified Paleontologist**	**City**	Prior to excavations exceeding 5 feet in specified formations

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
a) Potential impacts to paleontological resources in deep excavations	resource mitigation. These areas are shown on Figure 4.5-6. Paleontological review shall be conducted by a Principal Investigator to include preparation of a mitigation plan for on-site subsurface geology. Necessary elements of the plan shall include paleontological monitoring, proper field recovery techniques, museum curation, and post-excavation reporting. The mitigation plan shall also include guidance for minimizing or ending paleontological monitoring should local conditions prove unlikely to host significant fossils. Final engineering plans shall incorporate the paleontological mitigation plan.			
Impact 4.5.-5 cont. **b) Unanticipated discovery of paleontological resources**	**Mitigation Measure 4.5-3:** Unanticipated Discovery of Paleontological Resources. If fossils or fossil-bearing deposits are encountered during ground-disturbing activities, work within a 100-feet radius of the find all construction/disturbance within this radius shall halt, the City Planning Department shall be notified, and a Qualified Professional Paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the Qualified Paleontologist.	**Construction Contractor/Principal Investigator (Qualified Paleontologist**	**City Planning Department**	During construction (upon discovery)
Impact 4.5-6: Cumulative geologic or soils impacts related to risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction; substantial soil erosion or the loss of topsoil; substantial direct or indirect risks to life or property from expansive soils.	**Implementation of Mitigation Measure 4.5-1**			
Impact 4.5-7: In combination with other cumulative development, directly or indirectly destroy a unique	**Implementation of Mitigation Measure 4.5-1**			

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
paleontological resource or site or unique geologic feature.				
GHG	***Greenhouse Gas Emissions***			
Impact 4.6-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	**Mitigation Measure 4.6-1: Implement Off-Street Electric Vehicle Requirements in CalGreen Tier 2.** Prior to issuance of building or improvement permits, the project shall meet the following requirements as applicable: *Residential Requirements:* Hotels, motels, and multifamily projects with 20 or more units: • EV Ready: 55% of all off-street parking spaces must have a low-power Level 2 (208/240-volt, 20-amp) charging receptacle installed. • Installed chargers: 20% of all off-street parking spaces must be equipped with installed Level 2 (208/240-volt, 40-amp) chargers. Multifamily projects and hotels or motels with fewer than 20 units: • EV Ready: 55% of all off-street parking spaces must be equipped with low-power Level 2 charging receptacles. • Installed chargers: For projects with fewer than 20 units, the code requires installed chargers only if there are 20 or more parking spaces for residents and guests, in which case 20% must be equipped with Level 2 chargers. *Nonresidential Requirements* Given that the total number of parking spaces for the overall Project is over 200, project development must meet the following criteria: Total number of parking spaces (201 and over): • EV Ready: 45% of the total off-street parking spaces must be EV capable. • Installed chargers: 33% of the total EV capable spaces must be provided with installed Level 2 EVSE (Electric Vehicle Supply Equipment) chargers	**Project Applicant/Developer**	**City of Clearlake**	Prior to issuance of building permits

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.6-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	**Implement Mitigation Measures 4.2-1 and 4.6-3.**			
Impact 4.6-3: Result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	**Implement Mitigation Measure 4.2-1.**			
Impact 4.6-5 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	**Implement Mitigation Measures 4.2-1 and 4.6-1.**			
HAZ	***Hazards, Hazardous Materials, and Wildfire***			
Impact 4.7-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **a) Hazardous Materials Business Plan:** prevent improper storage and handling of hazardous materials	**Mitigation Measure 4.7-1:** Hazardous Materials Business Plan. Prior to building permit issuance for any use anticipating to store hazardous materials equal to or greater than 55 gallons (liquid), 500 pounds (solid), or 200 cubic feet (compressed gas), the applicant shall apply for and obtain a Hazardous Materials Inventory Disclosure Statement/Business Plan with the Lake County Environmental Health Division via the California Electronic Reporting System (CERS), and it shall be renewed and updated annually or if quantities increase. Hazardous materials shall not be allowed to leak onto the ground or contaminate surface waters. Hazardous materials shall be recycled or disposed of through a registered waste hauler to an approved site authorized to accept such materials.	**Project Applicant /Developer or Operator**	**Lake County Environmental Health Division (via CERS)**	Prior to building permit issuance (and updated annually)

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.7-1 cont. **b) Hazardous Waste Generation**	**Mitigation Measure 4.7-2:** Hazardous Waste Generator. If hazardous waste is generated in any quantity for any use, then prior to building permit issuance, the applicant shall be subject to regulation as a hazardous waste generator and shall apply for a one-time submittal to CERS and fees and inspection by the Lake County Environmental Health Division.	**Project Applicant /Developer or Operator**	**Lake County Environmental Health Division**	Prior to building permit issuance
Impact 4.7-1 cont. **c) Retail food facility code compliance**	**Mitigation Measure 4.7-3:** Retail Food Code Regulations. Prior to building permit issuance for any retail food facilities, the applicant must apply and pay for plan check application for permitting approval from the Lake County Environmental Health Division. Food facilities must be permitted and inspected prior to opening to the public.	**Project Applicant / Retail Operator**	**Lake County Environmental Health Division**	Prior to building permit issuance and prior to opening to the public
Impact 4.7-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **a) Accidental Hazardous Materials Release**	**Mitigation Measure 4.7-4:** Accidental Hazardous Materials Release. During project construction, should an accidental release of hazardous materials occur, the project developer/contractor shall cease operations and immediately notify the City of Clearlake Community Development Department and the Lake County Environmental Health Division and implement all appropriate remediation measures.	**Project Developer / Contractor**	**City of Clearlake Community Development Department / Lake County Environmental Health Division**	During project construction (immediately upon accidental release)
Impact 4.7-2 cont. **b) Handling of Hazardous Materials During Construction**	**Mitigation Measure 4.7-5:** Handling of Hazardous Materials During Construction. Prior to ground disturbance due to Project development and prior to the issuance of any grading and/or building permits for the site, a Soils Management Plan (SMP) shall be submitted and approved by the City of Clearlake Community Development Department and the Lake County Environmental Health Division. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.	**Project Developer / Contractor**	**City of Clearlake Community Development Department / Lake County Environmental Health Division**	Prior to ground disturbance and prior to the issuance of grading/building permits; maintained during construction

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.7-2 cont. **c) Hazards Remediation**	**Mitigation Measure 4.7-6:** Hazards Remediation. Prior to any ground disturbance and issuance of any grading permits for development on Parcels 1, 2, and 3, as cited by the Subsurface Investigation report by Ramboll US Consulting, Inc. for Project Number 1940106573-001 a soils investigation report shall be prepared and submitted for review and approval by the Lake County Environmental Health Department and the City of Clearlake Community Development Department to ensure that any contaminated soils are properly identified, excavated, and disposed of off-site (refer to Figure 4.7-3 for locations of Parcels 1, 2, and 3). The subject project shall implement the recommendations of the report to reduce or substantially lessen the potentially significant environmental impacts of the project. Target concentrations of contaminants and remediation of all soils shall be at or below concentrations allowable (i.e., US EPA Maximum Contaminant Levels) for the specified use of the property (residential, commercial, or industrial), if applicable, and shall otherwise meet all federal, state and local requirements for remediation, to the satisfaction of the City Community Development Department and the Lake County Environmental Health Division. Mitigation may include but is not limited to proper abandonment of existing septic systems, wells, soils remediation, groundwater remediation, proper removal of any other hazardous materials and construction debris currently on the site.	**Project Applicant / Developer**	**Lake County Environmental Health Department / City of Clearlake Community Development Department**	Prior to any ground disturbance and issuance of any grading permits for development on Parcels 1, 2, and 3
Impact 4.7-2 cont. **d) Pole-Mounted Transformers**	**Mitigation Measure 4.7-7:** Pole-Mounted Transformers. In the event of future release/leak of insulating fluids from on-site transformers, prior to grading and/or building permit issuance, the project developer/contractor shall contact PG&E regarding the testing of any on-site transformers for PCB fluids. If the transformers contain PCBs, the project proponent shall remove the transformers under proper permitting from PG&E, the City Community Development Department, and the Lake County Environmental Health Division.	**Project Developer / Contractor**	**PG&E / City Community Development Department / Lake County Environmental Health Division**	Prior to grading and/or building permit issuance (or in the event of a future release/leak)
Impact 4.7-2 cont. **e) Hazardous Building Materials (HBM) Remediation.**	**Mitigation Measure 4.7-8:** Hazardous Building Materials (HBM) Remediation. If, during building modifications or replacement of existing equipment, equipment containing PCBs, mercury, or CFCs, are encountered, the City Community Development Department and Lake County Environmental Health Division shall be contacted, and all switches, ballast-containing materials, etc. shall be removed and carefully stored for possible reuse prior to disturbance of any area where HBMs are	**Project Developer / Contractor**	**City of Clearlake Community Development Department / Lake County Environmental Health Division**	During building modifications or replacement of existing equipment (prior to disturbance of areas with HBMs)

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	located. If these materials are not reused, then they shall be disposed and/or recycled in accordance with all applicable laws and regulations.			
Impact 4.7-2 cont. **f) Asbestos Remediation**	**Mitigation Measure 4.7-9:** Asbestos Remediation. Prior to any removal, remodeling, maintenance, or demolition activities affecting any of the existing onsite structures, and prior to building or demolition permit issuance, the project developer/contractor shall consult with certified Asbestos Risk Assessors to complete and submit for review to the City Community Development Department and the Lake County Environmental Health Division an asbestos survey prepared by such qualified professional. If asbestos-containing materials (ACMs) are not discovered during the survey, further mitigation related to ACMs will not be required. If ACMs are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site ACMs shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all California Environmental Protection Agency regulations. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos abatement contractor in accordance with Title 8 CCR 1529 regarding asbestos training, engineering controls, and certifications. The project developer/contractor shall submit the work plan to the City Community Development Department and the Lake County Environmental Health Division for review and approval. Materials containing more than one (1) percent asbestos that is friable are also subject to Lake County Air Quality Management District (LCAQMD) approval.	**Project Developer / Contractor (utilizing certified Asbestos Risk Assessors and Cal-OSHA registered abatement contractors)**	**City Community Development Department / Lake County Environmental Health Division / Lake County Air Quality Management District (LCAQMD)**	Prior to any removal, remodeling, maintenance, or demolition activities affecting existing structures, and prior to building or demolition permit issuance
Impact 4.7-10: Cumulative exposure to potential hazards associated with potentially contaminated soil and groundwater and an increase in the transport, storage, and use of hazardous materials	**Mitigation Measures 4.7-1 through 4.7-9.**			

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
NOISE	***Noise***			
Impact 4.10-1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. a) Noise Impacts to Existing Residences from Proposed Recreational Facilities	**Mitigation Measure 4.10-1.** Reduce Noise Impacts to Existing Residences from Proposed Recreational Facilities. Prior to grading and building permit issuance for any proposed active recreation facilities on the project, the proposals shall be reviewed by a qualified acoustical consultant to ensure that noise generated by such activities would not adversely affect existing residences in the vicinity. All projects will be required to meet the City's noise standards for sensitive uses and shall implement noise attenuation measures as needed to remain below the City's thresholds.	**Project Applicant/Qualified Acoustical Consultant**	**City of Clearlake**	Prior to grading and building permit issuance
Impact 4.10-1 cont. b) Construction Noise	**Mitigation Measure 4.10-2**. Reduce Construction Noise. Prior to issuance of grading and building permits, the following measures shall be incorporated into construction plans and implemented during on-site construction operations: • Noise-generating construction activities within the Plan area shall occur pursuant to the hours and days outlined in Clearlake Municipal Code. • All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition. • All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity. • Electric-powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible. • Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive uses. • Project area and site access road speed limits shall be established and enforced during the construction period. • Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.	**Construction Contractor**	**City of Clearlake**	Prior to issuance of grading/building permits and during construction

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
	• In the event that unusual circumstances or emergencies prevent certain project construction activities from complying with the Municipal Code Section 6.68.090(e), a noise control plan shall be developed to ensure that sufficient mitigation is implemented during project construction to ensure adverse noise impacts are avoided.			
Impact 4.10.5: Combined with cumulative development expose noise-sensitive us-es proposed within the project site to noise levels exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**Mitigation Measure 4.10-3.** Reduce Noise Impacts to Proposed Residences Near SR 53 and Old Highway 53. Prior to building permit issuance for residential uses within 476 feet of the SR 53 centerline or within 88 feet of the Old Highway 53 centerline shall be re-viewed by a qualified acoustics consultant to ensure that traffic noise mitigation measures are included in the project design to achieve 60 dB DNL in outdoor activity areas of the residential uses. Such measures which may be utilized to achieve compliance with the City's 60 dB DNL exterior noise standard include, but would not be limited to, the following: • Shielding of outdoor activity areas of future residential uses by the residential structures, topography, or sound barriers. • Relocating outdoor activity areas beyond the distances identified above (i.e. the distances to the 60 dB DNL future traffic noise contours for SR 53 and Old Highway 53.	**Project Applicant/Qualified Acoustical Consultant**	**City of Clearlake**	Prior to building permit issuance
TCR	***Tribal Cultural Resources***			
Impact 4.14-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of	**Mitigation Measure 4.14-1:** The City shall retain a tribal representative from a culturally-affiliated tribe to provide a one-time paid initial worker awareness and cultural awareness training program on or just prior to the first day of construction, and at any time five (5) or more untrained workers are employed in ground disturbing activities at the site. All supervisors of contractors, subcontractors, project personnel, and workers involved in ground disturbing activities shall be briefed on the requirements for avoidance, preservation in place, and minimization and mitigation measures by receiving cultural awareness training by the consulting tribe, as well as the procedures for addressing unanticipated discovery and respectful treatment of Native American human remains and tribal cultural resources.	**City of Clearlake / Culturally Affiliated Tribe Representative**	**City of Clearlake**	On or prior to the first day of construction, and anytime 5 or more untrained workers are added

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). **a) Tribal representative retention; worker training**				
Impact 4.14.1 cont. b) Sensitive Sites Identified in Cultural Resources Assessment	**Mitigation Measure 4.14-2:** Prior to ground-disturbing activities commencing, the contractor shall install high-visibility exclusionary fencing to prevent ground disturbance within 50 feet of ACD-CR-01. A photograph of the installed fencing and a map indicating the photo point shall be submitted to the City Community Development Department as proof of compliance. Fence installation shall be monitored by a qualified professional archaeologist and, for tribal cultural resources, a culturally affiliated consulting tribe monitor, and inspected at least once per month by the City Community Development Department during active construction within the impacted area to ensure integrity of the fence line. Once all construction equipment and personnel have vacated the Project site, the exclusionary fencing may be removed. The contractor shall provide the City Community Development Department with documentation that the fence was installed, monitored, and removed in compliance with this measure. Tribal monitors from the culturally affiliated consulting tribe shall be present during the installation of the fence and during all Project activities within 100 feet of the resource. **Mitigation Measure 4.14-3:** No ground-disturbing work shall occur within boundaries of the Sensitive Site identified in the Cultural Resource Investigation. All ground disturbing activity within 100 feet of ACD-CR-01 shall be monitored by a qualified tribal monitor from the culturally affiliated consulting tribe. This includes, but is not limited to any fence installation, staging work, clearing and grubbing, grading, and trenching. The tribal monitor must be given a minimum of seven (7) days' notice of the opportunity to be present during these activities to observe work activities and assist in ensuring that sensitive tribal cultural resources are not adversely affected. The monitor shall be given a reasonable opportunity to inspect soil and other material as work proceeds to assist in determining if resources significant to the tribe are present. If a potential tribal resource is identified by the monitor, they may pause or redirect work temporarily in order to closely inspect the potential discovery. If the tribe cannot recommend a monitor or if the tribal monitor does not report at the scheduled time, all work may continue as long as the specified notice of seven (7) days was provided. Recovery of cultural items, reburial preparation, and reburial shall also be conducted under the direction of a culturally affiliated tribe.	**Contractor / Qualified Professional Archaeologist / Tribal Monitor**	**City Community Development Department**	Prior to ground-disturbing activities, monthly during construction, and post-construction

Environmental Impact(s)	Mitigation Measure	Implementing/Monitoring Responsibility	Verification Responsibility	Timing
Impact 4.14-2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**Mitigation Measure 4.14-1 and 4.14-3.**			
Impact 4.14-3: Implementation of the proposed Project, in combination with other cumulative development, could contribute to the cumulative loss or alteration of tribal cultural.	**Mitigation Measure 4.14-1 through 4.14-3.**			

APPX. APPENDICES

Appx. List of Appendices

A. Appendix A: Notice of Preparation (NOP)

B. Appendix B: NOP Comments

In order of receipt.

1. California Department of Transportation (Caltrans) - Jesse Robertson, System Planning & Local Development Review, June 17, 2024
2. Native American Heritage Commission – Cameron Vela, Cultural Resources Analyst, July 19, 2024
3. California Department of Fish & Wildlife - Tanya Sheya, Environmental Program Manager July 22, 2024
4. Koi Nation of Northern California – Robert Geary, Cultural Resources Director/Tribal Historic Preservation Officer, July 23, 2024
5. Lake County Special Districts – Lori A. Baca, Customer Service Supervisor, August 6, 2024
6. Highlands Mutual Water Company - Tina M. Wallis, Partner, Frost Brown Todd Attorneys, August 7, 2024
7. Central Valley Regional Water Quality Control Board - Peter G. Minkel, Engineering Geologist, August 8, 2024
8. Caltrans - Jesse Robertson, System Planning & Local Development Review, August 9, 2024
9. County of Lake Health Services – Christina Gearhart, Environmental Health Division, August 12, 2024

C. Appendix C: Aesthetics

1. City of Clearlake Airport Redevelopment Area Development Manual – *prepared by* City of Clearlake, April 2026

D. Appendix D: Air Quality

1. California Emissions Estimator Model (CalEEMod) Model Assumptions & Inputs
    i. Clearlake Airport Redevelopment Project CalEEMod Project Detailed Report with Tier 4 Mitigation (for determining construction impacts with Tier 4 construction equipment mitigation) – *prepared by* Yuba Planning Group, August 29, 2025.

ii. Natural Gas Conversion to Electricity side calculations for CalEEMod inputs – *prepared by* Yuba Planning Group, August 29, 2025.
iii. I-Tree Planting Report side calculations for CalEEMod inputs – *prepared by* Yuba Planning Group, August 6, 2025.

E. Appendix E: Biological Resources

1. Biological Resources
   i. Biological Resources Assessment - *prepared by* Greg Matuzak Environmental Services, LLC, Nevada City, California, May 2025
   ii. Airport Property Commercial Center Hotel Project Biological Evaluation – *prepared by* Live Oak Associates, Inc., July 21, 2022
2. Arboricultural Survey
   i. Tree Inventory and Assessment - *prepared by* Greg Matuzak Environmental Services, LLC, Nevada City, California, June 2025
   ii. Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project – *prepared by* Live Oak Associates, Inc., July 18, 2022

F. Appendix F: Tribal & Cultural Resources

1. Cultural Resource Investigation of the Proposed 53.2-Acre Airport Retail Commercial Center and 18th Avenue Extension, City of Clearlake, Lake County, California – *prepared by* Gregory G. White, PhD, RPA, Principal Investigator, Sub-Terra Heritage Resource Investigations, Chico, California, April 2026.

G. Appendix G: Geology & Soils

1. Geotechnical Engineering Investigation Report (geotechnical report) prepared for the Home Depot Store – *prepared by* Moore Twining Associates, Inc. February 22, 2008
2. Clearlake Airport Redevelopment Project Paleontological Resource Assessment Report – *prepared by* Russell Shapiro, Ph.D., Principal and Qualified Paleontologist, Sub-Terra Heritage Resource Investigations, Chico, California, August, 2025

H. Appendix H: Hazards, HAZMAT & Wildfire

1. Phase I Environmental Site Assessment 6820 Old Highway 53, APN 010-043-380 and 010-043-390 – *prepared by* Ramboll Americas Engineering Solutions, Inc., February 2024
2. Phase I Environmental Site Assessment Clearlake Development Properties, APNs 010-043-36, -38, and -39, 042-052-19, 042-121-25, 042-122-26, 042-123-11 and -31, and 042-124-26 and 042-124-30 – *prepared by* Krazan & Associates, Inc., May 23, 2007
3. Subsurface Investigations 6820 and 6860 Old Highway 53 (APNs 010-043-380, 010-043-390, and 010-031-050) – *prepared by* Ramboll Americas Engineering Solutions, Inc., September 2024
4. Limited Phase II Subsurface Investigation, 6885 and 7110 Old Highway 53 – *prepared by* AEI Consultants, April 26, 2018

5. Phase I Environmental Site Assessment 6820 and 6840 Old Highway 53, APNs 010-031-080 and 010-031-090 – *prepared by* Ramboll Americas Engineering Solutions, Inc., February 2024
6. Phase I Environmental Site Assessment 6860 Old Highway 53, APNs 010-031-050 - *prepared by* Ramboll Americas Engineering Solutions, Inc., February 2024

I. Appendix I: Hydrology

1. Groundwater Feasibility Evaluation – Airport Redevelopment Project, Technical Memorandum - *prepared by* NorthPoint Consultant Group, July 8, 2025
2. Water Supply Assessment – *prepared by* NorthPoint Consulting Group, Inc., March 2025

J. Appendix J: Noise

1. Noise Survey - *prepared by* Bollard Noise Consultants, August 20, 2025

K. Appendix K: Public Services and Utilities

1. Technical Memorandum EIR Support Infrastructure – *prepared by* California Engineering Company, July 21, 2025

L. Appendix L: Transportation

1. Draft-Final Report: Traffic Operations Analysis for the Clearlake Airport Redevelopment Area Project - *prepared by* W-Trans Transportation Consultants, October 21, 2025
2. Transportation Impact Study for the Clearlake Airport Redevelopment Area Project - *prepared by* W-Trans, October 21, 2025

M. Appendix M: Tribal Cultural Resources

1. Native Sovereign Nation Consultation Guidelines for the City of Clearlake, Volume I: Guidelines - *prepared by* ECORP Consultants Inc, June, 2024

N. Appendix N: Alternatives

1. Clearlake Airport Redevelopment Project CalEEMod RIDA Alternative Detailed Report – *prepared by* Yuba Planning Group, October 25, 2025

Appx. Not Included

No appendices were included for the following subject matter:

- **Greenhouse Gases, Climate Change and Energy -** N/A - See Appendix B
- **Land Use and Planning -** N/A (no technical studies)
- **Population and Housing -** N/A (no technical studies)

Appendix A - Notice of Preparation (NOP)

Appendix B – NOP Comments

Appendix C – Aesthetics

Appendix D – Air Quality

Appendix E - Biological Resources

Appendix F – Cultural Resources

CONFIDENTIAL – Not Included

Appendix G – Geology & Soils

Appendix H – Hazards, Hazardous Materials & Wildfire

Appendix I – Hydrology

Appendix J – Noise

Appendix K – Public Services & Utilities

Appendix L – Transportation

Appendix M – Tribal Cultural Resources

Appendix N – Alternatives