Attachment A

DRAFT

INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

LAKE SAN ANTONIO SOUTH SHORE MARINA PROJECT

LAKE SAN ANTONIO RECREATION AREA, MONTEREY COUNTY, CALIFORNIA

LSA

January 2022

DRAFT

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MITIGATED NEGATIVE DECLARATION

LAKE SAN ANTONIO SOUTH SHORE MARINA PROJECT

LAKE SAN ANTONIO RECREATION AREA, MONTEREY COUNTY, CALIFORNIA

Submitted to:

County of Monterey Public Works, Facilities, & Parks
1441 Schilling Place, South 2nd Floor
Salinas, California 93901-4527

Prepared by:

LSA Associates, Inc.
285 South Street, Suite P
San Luis Obispo, California 93401
(805) 782-0745

LSA

January 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BRA	Biological Resources Assessment
BSA	Biological Study Area
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-IPC	California Invasive Plant Council
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Data Base
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalents
County	Monterey County
CWA	Clean Water Act
dBA	A-weighted decibel
DOC	California Department of Conservation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency

FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
ft	foot/feet
GHG	greenhouse gas
GSA	groundwater sustainability agency
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
HSC	Health and Safety Code
L_{max}	maximum instantaneous sound level
MBARD	Monterey Bay Air Resources District
MBTA	Migratory Bird Treaty Act
mph	miles per hour
mya	million years ago
N_2O	nitrous oxide
NCCAB	North Central Coast Air Basin
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O_3	ozone
OHP	California Office of Historic Preservation
PFCs	perfluorocarbons
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than or 2.5 microns in size
PRC	Public Resources Code
proposed Project	Lake San Antonio Recreation Area South Shore Marina Project
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF_6	sulfur hexafluoride

SGMA	Sustainable Groundwater Management Act
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SRA	State Responsibility Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
US 101	United States Route 101
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WEAP	Worker Environmental Awareness Program

1.0 PROJECT INFORMATION

1. **Project Title:** Lake San Antonio South Shore Marina Project

2. **Lead Agency Name and Address:**
   County of Monterey Public Works, Facilities, & Parks
   1441 Schilling Place, South 2nd Floor
   Salinas, California 93901-4527

3. **Contact Person and Phone Number:**
   Nathan Merkle, Administrative Operations Manager
   (805) 238-3256

4. **Project Location:** The Project site is located within the Lake San Antonio Recreation Area, approximately 30 miles north of Paso Robles, California, along the shores of Lake San Antonio.

5. **General Plan Designation:** Public/Quasi-Public

6. **Zoning:** Public/Quasi-Public

7. **Description of Project:** The proposed Project includes the demolition and removal of the former marina, the removal/relocation of associated fuel infrastructure, and the installation of a new marina and fuel system within the existing Lake San Antonio Recreation Area. A detailed description of the proposed Project is provided in Section 2.0, Project Description, below.

8. **Surrounding Land Uses and Setting:** Lake San Antonio is an approximately 16-mile-long lake with approximately 100 miles of shoreline. The Lake San Antonio reservoir and dam are controlled by the Monterey County Water Resources Agency, whereas the Lake San Antonio Recreation Area is managed by the Monterey County Department of Public Works, Facilities, & Parks. The Lake San Antonio Recreation Area is geographically divided into two facilities – the North Shore and the South Shore, which currently support a variety of recreation activities, including camping, boating, fishing, waterskiing, swimming, hiking, mountain biking, horseback riding, and picnicking. Additional information related to the Project setting is provided in Section 2.0, Project Description.

9. **Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):**

   - U.S. Army Corps of Engineers (USACE)
   - California Department of Fish and Wildlife (CDFW)
   - Regional Water Quality Control Board (RWQCB)

10. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is**

there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In December 2021, the County of Monterey (County) provided formal notification to those California Native American tribes that have requested notification of all new potential Mitigated Negative Declarations within the County pursuant to the consultation requirements of Assembly Bill (AB) 52. At the time of preparation of this Initial Study, the County had yet to receive any requests for consultation from tribal representatives.

2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

The Monterey County Department of Public Works, Facilities, & Parks, acting as the California Environmental Quality Act (CEQA) Lead Agency, proposes to replace the former marina and fuel system within the Lake San Antonio Recreation Area. The Lake San Antonio Recreation Area South Shore Marina Project (herein referred to as the proposed Project) would require the demolition and off-haul of the former marina, which is currently moored in Lake San Antonio, the removal and/or relocation of existing fuel infrastructure at the Lynch Site, and the installation of a new marina and fuel infrastructure at the Harris Creek Site.

2.1.1 Project Location and Setting

The Project site is located within the Lake San Antonio Recreation Area, approximately 30 miles north of Paso Robles in Monterey County along the shore of Lake San Antonio. Figure 1, Overview of the South Shore Marina Project Sites, shows the location of the proposed Project site on both a regional and local basis, respectively. Lake San Antonio is an approximately 16-mile-long lake with approximately 100 miles of shoreline. The Lake San Antonio reservoir and dam are controlled by the Monterey County Water Resources Agency, whereas the Lake San Antonio Recreation Area is managed by the Monterey County Department of Public Works, Facilities, & Parks. The Lake San Antonio Recreation Area is geographically divided into two facilities – the North Shore and the South Shore, which currently support a variety of recreation activities, including camping, boating, fishing, waterskiing, swimming, hiking, mountain biking, horseback riding, and picnicking. Regional vehicular access to the Project site is provided by United States Route 101 (US-101), which is located approximately 8.0 miles east of the Project site.

The proposed Project site is comprised of three sites located within the Lake San Antonio Recreation Area. The first site is located on the western side of Lake San Antonio at the former Lynch Marina, hereinafter referred to as the "Lynch Site." The second site is located south of the Lynch Project Site at Harris Creek, hereinafter referred to as the "Harris Creek Site." The last site is the decommissioned marina, which is currently moored within Lake San Antonio near the Harris Creek Project Site, hereinafter referred to as the "Former Marina Site."

According to the Monterey County Land Use Plan for South County, the Project site is designated as Public/Quasi-Public. Per the County Zoning Code, the Project site is zoned Public/Quasi-Public. Undeveloped open space surrounds the Project site.

2.1.2 Existing Conditions

The Lynch Site is currently developed with existing park and recreational uses, including restrooms, a concrete boat launch, paved surface parking areas, playground, and other recreation facilities. Facilities associated with the former marina, including a concrete walkway, aboveground/ underground fuel line, and a fuel tank. The Harris Creek Site is also developed with a paved surface parking area and a concrete boat launch/ramp. The Former Marina Site consists of the former condemned marina.

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Project Site

FIGURE 1

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0 825 1650

FEET

SOURCE: Bing Maps, 2020

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Lake San Antonio South Shore Marina Project

Overview of the South Shore Marina Project Sites

The Project site contains ruderal (e.g., disturbed, weedy or barren) areas, developed areas, blue oak woodland, coyote bush scrub, lakeshore, open water, and areas with patches of mostly non-native herbaceous plant species. All three sites are located within the Current High Water Lake Shoreline of Lake San Antonio, which are classified as waters of the United States.

2.1.3 Project Description

The proposed Project would require demolition and haul-off of the former marina (Figure 2, Former Marina Site), the removal of the fuel tank and line and potential removal of the concrete walkway from the Lynch Site (Figure 3, Lynch Site), and the installation of a new marina at the Harris Creek Site (Figure 4, Harris Creek Site), including a new fuel tank and fuel line at this location. The elements of the proposed Project are described further below.

2.1.3.1 Demolition and Removal of the Former Marina

The former marina facility, which includes approximately 900 linear feet of dock with approximately 100 slips, would be removed. The former marina would be towed to the Harris Creek Site and hauled out. Materials would be separated based on the type of material, and items suitable for recycling would be recycled. All other materials would be transported to a nearby landfill for disposal. The proposed Project would generate debris consisting of approximately 5,700 square feet of wood structure, 2,000 square feet of metal sheeting and beams, and hundreds of plastic encapsulated foam marine floats.

2.1.3.2 Removal of Existing Fuel Infrastructure

The existing fuel tank and line located at the Lynch Site would either be removed and relocated to the Harris Creek Site to serve the new marina or removed entirely and a new line installed at the Harris Creek Site. In addition, an existing concrete walkway would be removed and the area restored with native vegetation.

2.1.3.3 Installation of New Marina

As part of the proposed Project, the County would establish a new marina and fuel system at Harris Creek. The proposed 50-slip marina would enable campers to moor their boats overnight and would provide an on-water fueling source for boaters at Lake San Antonio. A new 12,000-gallon fuel tank would be installed in the northeast corner of the upper parking lot with an aboveground fuel line connecting to the marina. The proposed marina would also include a small retail store, built on the dock, for non-alcoholic drinks, fishing tackle, watersports equipment, and boat supplies. New water and electrical lines would be installed to serve the new retail store. A landscaped walkway would be constructed along the existing boat launch ramp to provide pedestrian access between the parking area and the marina gangway.

The 50-slip marina would be launched from the existing boat ramp and anchored to the shore/ lakebed. Six onshore and sixteen offshore anchor points, approximately 2 feet long, 4 feet wide, and 5 feet deep, would be installed upslope from the lakeshore and within the lakebed.

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Project Site

Current High Water Lake Shoreline

FIGURE 2

0 162.5 325

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SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Former Marina Site

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LEGEND

Project Site

Current High Water Lake Shoreline

FIGURE 3

N

0 50 100

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SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Lynch Site

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FIGURE 4

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- Flexible Fuel Piping
- Marina
- Fuel Tank
- Underground Powerline
- Walking Trail
- Project Site
- Current High Water Lake Shoreline

0 162.5 325
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SOURCE: Bing Maps, 2020

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Harris Creek.mxd (9/28/2021)

Lake San Antonio South Shore Marina Project

Harris Creek Site

2.1.3.4 Project Operation

Implementation of the proposed Project would allow the County to provide overnight mooring for campers and an on-water fueling source for boaters at Lake San Antonio. The Harris Creek Site is accessible even at extremely low water levels, which would allow continued access for boats when other locations around the lakeshore are dry. Operations at the proposed marina would be consistent with existing operations at the Lake San Antonio Recreation Area. During the summer months, the marina would be open during daylight hours, depending on staff availability. From December to March, the marina would either be closed or would operate with reduced hours, depending on staff availability.

2.1.4 Construction Details

Construction of the proposed Project would take approximately 18 months and would occur in a single phase. Debris that would be generated and disposed of off site includes: 5,700 square feet of wood structure; 2,000 square feet of metal sheeting and beams; and hundreds of plastic encapsulated foam marine floats. Depending on funding availability, Project construction is expected to commence in January 2023 and must be completed by January 2025. Typical construction hours would be 8:00 a.m. to 5:00 p.m., Monday through Friday. Construction staging would occur within existing disturbed areas (e.g., parking lots) within the Project site. These staging areas would be used for construction worker parking and the staging of equipment and debris containers.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this proposed Project, involving at least one impact that is "Less than Significant" or a "Less than Significant Impact with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☒ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

Some proposed applications that are not exempt from California Environmental Quality Act (CEQA) review may have little or no potential for adverse environmental impacts related to most of the topics in the Environmental Checklist; and/or potential impacts may involve only a few limited subject areas. These types of projects are generally minor in scope, located in a nonsensitive environment, and are easily identifiable and without public controversy. For the environmental issue areas where there is no potential for significant environmental impact (and not checked above), the following findings can be made using the project description, environmental setting, or other information as supporting evidence.

☐ Check here if this finding is not applicable.

3.1 FINDING

For the above referenced topics that are not checked off, there is no potential for significant environmental impact to occur from either construction, operation, or maintenance of the proposed Project, and no further discussion in the Environmental Checklist is necessary.

3.2 EVIDENCE

3.2.1 Aesthetics

The proposed Project is located within the Lake San Antonio Recreation Area along the western shoreline of the lake within the South Shore area. The Lake San Antonio Recreation Area is characterized primarily by the lake itself, which is surrounded by grass picnic areas, other recreational development (e.g., campsites, parking areas, restrooms), and rolling hills with natural vegetation. Public views of the Project site are available for boaters on the lake and other visitors in this portion of the Lake San Antonio Recreation Area. The Harris Creek Site is already partially developed with recreational facilities, including a boat launch and paved parking area. As the proposed Project is a marina replacement project, implementation of the proposed Project would not create visual changes to the existing environment. Implementation of the proposed Project would not have an adverse effect on a scenic vista, damage scenic resources, degrade existing visual

character or quality of public review of the site and its surroundings, or create a new source of substantial light or glare. Furthermore, the proposed Project is not located in or visible from a State or County-designated scenic road/corridor. The proposed Project would have no impact on scenic resources or visual character.

3.2.2 Agricultural and Forest Resources

According to the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) the Project site is designated as Urban and Built-Up Land (D), Water (W), and Grazing Land (G).[1] No Important Farmland (Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance) has been designated within the Project sites. The Monterey County Land Use Plan and Zoning Code designates the Project site as Public/ Quasi-Public; as such, the proposed Project is not currently zoned for agricultural or forestry use. There is no land adjacent to or near the proposed Project that is currently occupied by active agricultural activities. Figure AQCP4 of the County General Plan indicates that the proposed Project site is not under a Williamson Act contract.[2] For these reasons, implementation of the proposed Project would have no impact on agricultural or forestry resources.

3.2.3 Energy

The proposed Project would consist of the demolition of a former marina facility, removal of the existing fuel tank and line located at the Lynch Site, and installation of a new marina, new retail shop, and new fuel infrastructure at the Harris Creek Site. Construction of the proposed Project would be short term and would consume nominal amounts of energy in the form of fuel for the operation of construction equipment. Once operational, the proposed Project is expected to consume the same amount of energy as was previously used at the former marina and fuel infrastructure system at the Lynch Site. Therefore, the proposed Project would have a less than significant impact to energy and would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.2.4 Land Use and Planning

The proposed Project is in unincorporated Monterey County in the Lake San Antonio Recreation Area approximately 30 miles from Paso Robles. According to the Monterey County Land Use Plan, the Project site is designated as a Public/Quasi-Public land use. The Monterey County Zoning Code designates the Project site as a Public/Quasi-Public zone. Therefore, the proposed Project would not require a land use amendment or zone redesignation. As the Project site is fully within the Lake San Antonio Recreation Area, the proposed Project would not physically divide an established community.

As the proposed Project is located fully within the Lake San Antonio Recreation Area, construction and operational activities would not permanently impact any adjacent land uses identified in the

[1] California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: maps.conservation.ca.gov/DLRP/CIFF/ (accessed November 2, 2021).

[2] Monterey County. 2010. Monterey County General Plan, Figure AWCP4 Williamson Act Lands. 26 October. Website: www.co.monterey.ca.us/home/showpublisheddocument/46006/636389948786070000 (accessed November 2, 2021).

Monterey County General Plan Land Use Element/Map. The proposed Project is consistent with all applicable land use plans, policies, or regulations adopted, and no impacts would occur.

3.2.5 Mineral Resources

The proposed Project is not located within an area classified as a Mineral Resource Zone. No mineral resources have been identified in the Project area.[3] Therefore, implementation of the proposed Project would not result in the loss of availability of any known mineral resources. No impact related to mineral resources would occur.

3.2.6 Population and Housing

The proposed Project would include the demolition of an existing marina and fuel facilities and construction of a new marina and fuel facilities on Lake San Antonio. The proposed Project does not include the construction of new housing or displacement of existing housing, nor would it cause an increase in the housing supply indirectly through increased demand for housing. Additionally, the proposed Project would not cause an increase in the County's population and would not result in direct or indirect growth-inducing effects. For these reasons, implementation of the proposed Project would not have an impact on population growth and housing.

3.2.7 Public Services

Public services, including fire and law enforcement services, are currently being provided to the Project site. The California Department of Forestry and Fire Protection (CAL FIRE) provides fire protection service through the CAL FIRE Bradley Station (65789 Bradley Road) approximately 25 miles from the Project site.[4] The Monterey County Sheriff's Department provides law enforcement service to the Project site through its South County and Roger Barber Station Patrol Division.[5] The South County and Roger Barber Station is located in King City, approximately 45.1 miles from the Project site. Implementation of the proposed Project includes marina replacement on Lake San Antonio and would not increase the demand for fire or law enforcement services. Because the proposed Project is a marina replacement project, it would not generate the need for additional schools, park space, or other public services in the Project vicinity. Therefore, implementation of the proposed Project would have no impact on public services.

3.2.8 Recreation

The proposed Project is a marina replacement project, which would improve boat launching, mooring, and fueling activities for recreational users at the Lake San Antonio Recreation Area. The Lake San Antonio Recreation Area currently has daily occupancy limits for the recreation area. Although the proposed Project would improve the recreational facility, it would not increase the

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3 Monterey County. 2015. Mineral Resource Zones, Monterey County, California, 2015. Website: maps.princeton.edu/catalog/stanford-fp804cr5490 (accessed November 2, 2021).

4 ICF Jones & Stokes. 2008a. 2007 Monterey County General Plan Draft Environmental Impact Report, SCH# 2007121001. September. Website: www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/resources/2010-general-plan/general-plan-final-environmental-impact-report-feir-information (accessed December 7, 2021).

5 Ibid.

number of users at the Lake San Antonio Recreation Area, as the proposed Project would replace a former marina facility. The proposed Project does not include the construction of new housing nor would it cause an increase in the housing supply indirectly through increased demand for housing. The proposed Project would not generate an increased demand for park space or recreational facilities. Implementation of the proposed Project would not have an impact on recreation, including neighborhood and regional parks or other recreational facilities.

3.2.9 Utilities and Service Systems

3.2.9.1 Wastewater

The proposed Project does not involve uses requiring wastewater treatment. Restroom facilities already exist at the Project site and new facilities would not be developed as part of the proposed Project. Wastewater generated during construction of the proposed Project would be minimal (e.g., portable bathrooms) and would be collected on-site and transported to an off-site facility for treatment and disposal by the Project contractor. Operation of the proposed Project would not generate wastewater that requires treatment subject to the requirements of the Regional Water Quality Control Board (RWQCB). The proposed Project would therefore not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

3.2.9.2 Water

The proposed Project may result in a short-term demand for water during construction in the form of dust control. This use would cease when construction is completed. Overall, construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. The fuel infrastructure proposed for the Project would be equipped with fire extinguishers and a water supply in the event a fire occurs. New water lines would also be installed to serve the new retail store and provide irrigation for new landscaping on the walkway between the parking area and the marina gangway. However, demand for water would be nominal and equate to what was being used at the former marina. Other features of the proposed Project, once operational, would not require water and would not generate new demand that would adversely affect long-term water supplies. Therefore, the proposed Project would not require or result in the construction of new water treatment facilities or expansion of existing facilities.

3.2.9.3 Stormwater

The proposed Project would not require or result in construction of new stormwater drainage facilities or require the expansion of existing facilities. Refer to Section 4.10, Hydrology and Water Quality, for further discussion of drainage associated with the proposed Project.

3.2.9.4 Solid Waste

Operation of the proposed Project is not anticipated to generate a significant amount of solid waste. Boaters using the new marina facility would generate solid waste, such as food packaging and food waste that would be disposed of at the new marina or retail store; however, the amount of solid waste generated would be nominal and would not exceed average per capita garbage generation rates. In addition, recycling receptacles would be provided at the proposed marina, consistent with

other recreation facilities at Lake San Antonio, allowing the proposed Project to be in full compliance with waste diversion goals mandated by the California Integrated Waste Management Act.

As outlined in Section 2.0, Project Description, the proposed Project would include demolition and removal of the former marina, including disposal of approximately 5,700 square feet of wood structure, 2,000 square feet of metal sheeting and beams, and hundreds of plastic encapsulated foam marine floats. The quantity of solid waste materials associated with construction would be limited to the construction period, and would not pose a significant impact upon existing landfills. To the extent possible, solid waste would be recycled either on site or transported to a local disposal center for recycling. Therefore, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and the proposed Project would not increase the demand for solid waste disposal (landfill service) facilities. Therefore, the proposed Project would not require or result in the construction of new solid waste disposal facilities or expansion of existing facilities.

3.2.9.5 Electricity/Natural Gas

The new retail store and fuel dock would require electricity from existing utility poles in the vicinity of the Project site. As such, electrical lines would be installed to connect these Project features to the existing electrical infrastructure on site. Relocation of existing or installation of new electrical infrastructure (e.g., power poles and transmission lines) would not be required. New natural gas infrastructure would not be required; however, a propane tank may be included adjacent to the new retail store to allow customers to fill personal tanks for camping use. Any new demand for electricity or natural gas would be nominal and would not require the construction of new infrastructure.

3.2.9.6 Telecommunications

The proposed Project would not require the temporary or permanent relocation of existing aerial telecommunication lines in the Project vicinity. The proposed Project would install telecommunications lines to connect to existing facilities in order to provide service to the new retail store and marina. Implementation of the proposed Project would not require installation of new telecommunication infrastructure on power poles.

The construction and operation of the proposed Project would not impact wastewater, water, stormwater runoff, solid waste services, electricity, natural gas, or telecommunications facilities. The proposed Project would have a less than significant impact on utilities and service systems.

3.2.10 Transportation

The proposed Project would require construction equipment to be delivered to the Project site via San Antonio Road and Interlake Road. The construction equipment would be staged at the Project site through the duration of construction; as such, additional vehicle trips on San Antonio Road and Interlake Road would be nominal compared to existing vehicle trips utilizing these roads to access the Lake San Antonio Recreation Area. Once operational, the proposed Project would not generate any more vehicle trips than already occurs to Lake San Antonio Recreation Area, as the proposed

Project would replace the former marina with a new marina of generally the same size within the existing recreation area. The proposed Project does not include any detours or road closures and would not increase the amount of vehicles that visit Lake San Antonio Recreation Area on a daily basis. Given the fact that the proposed Project would not involve land development activities or changes to roadways and would not alter travel patterns or travel demand, the proposed Project would not conflict or be inconsistent with *State CEQA Guidelines* Section 15064.3. As the Project is a marina relocation project, road closures and/or detours would not be required during construction and operation of the proposed Project. Unobstructed emergency access would continue to be available to the Lake San Antonio Recreation Area, and the Project site during Project construction and operation. Finally, neither Project construction nor operation would substantially increase hazards due to a geometric design feature or an incompatible use on San Antonio and Interlake Roads, which both provide access to the Project site and the Lake San Antonio Recreation Area.

3.2.11 Wildfire

The proposed Project is located in a rural area of Monterey County within the Lake San Antonio Recreation Area. Areas around the Project site are occupied by natural vegetation, water, and natural topography. No urban areas (i.e., residential, commercial, or industrial uses) are located adjacent or in the vicinity of the Project site. According to the Fire Hazard Severity Zones map, adopted by CAL FIRE in 2007 and provided in the County General Plan, the Project site is located in the State Responsibility Area (SRA) moderate and high Fire Hazard Severity Zone. The proposed Project would include demolition and removal of the decommissioned marina, which is currently moored in Lake San Antonio, removal/relocation of existing infrastructure (fuel tank and walkway) at the Lynch Site and development of the new facility including a fuel dock and small retail building at the Harris Creek Site. Fire suppression features would be built into the Project (specifically the new fuel dock), which would reduce the potential for fire. The proposed Project would not alter the risk or impacts to area residences from wildland fires as compared to existing conditions. The proposed Project would be constructed within the San Antonio Lake Recreation Area at the lake's water line and would not require any road closures or detours. San Antonio Road connecting to Interlake Road would be used during an evacuation of Lake San Antonio Recreation Area and the Project site in the event of a wildfire. The proposed Project would not involve any work or other disruption on San Antonio Road or Interlake Road and, therefore, would not substantially impair an emergency response plan or emergency evacuation plan. As noted above, because of the nature of the Project (i.e., marina replacement project), the proposed Project would not exacerbate wildfire risks or secondary risks associated with wildfire such as flooding, landslides, or slope instability.

3.3 DETERMINATION

On the basis of this initial evaluation:

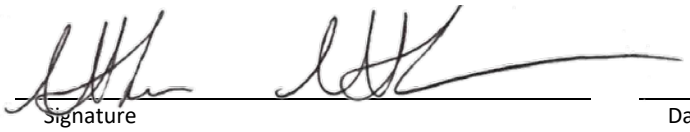
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

1/13/2022

Date

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parenthesis following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced, as discussed below).

5. Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063 [c][3][D]). In this case, a brief, discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and Lead Agencies are free to use different formats; however, Lead Agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and,

    b. The mitigation measure identified, if any, to reduce the impact to less than significant.

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Proposed Project construction and operation would not result in aesthetic impacts. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination for a more detailed discussion about the proposed Project and aesthetics.

4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts to agriculture or forest resources. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and agriculture or forest resources.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The discussion and analysis provided in this section is based on air quality information obtained from the Monterey Bay Air Resources District (MBARD) as described below and air quality modeling conducted by LSA (November 2021). The air quality modeling worksheets are included in Appendix A. The MBARD regulates air quality in the Project area.

Within the MBARD, ambient air quality standards for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns or 2.5 microns in size (PM_{10} and $PM_{2.5}$, respectively), and lead have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The MBARD area is in nonattainment for State O_3, and PM_{10}.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The proposed Project is in unincorporated Monterey County in the San Antonio Recreation Area, within the jurisdiction of the MBARD, which regulates air quality in the North Central Coast Air Basin (NCCAB). Air quality in the planning area is not only affected by various emission sources (mobile, and industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

An air quality plan describes air pollution control strategies to be taken by counties or regions classified as nonattainment areas. The main purpose of an air quality plan is to bring a nonattainment area into compliance with the requirements of federal and State air quality standards. The air quality plan uses the assumptions and projections provided by local planning agencies to determine control strategies for achieving regional air quality compliance. The most recent MBARD plan for attaining California Ambient Air Quality Standards (CAAQS) is the 2012–2017 Air Quality Management Plan (AQMP), which was adopted on March 15, 2017. The 2012–2017 AQMP addresses attainment of the State O_3 standard. The 2012–2017 AQMP also serves as an

assessment and update to the 2012 Triennial Plan, which documents the MBARD's progress towards attaining the State O_3 standard. For a project in the NCCAB to be consistent with the AQMP, the pollutants emitted from the project must not exceed the MBARD significance thresholds or cause a significant impact to air quality.

As discussed below, implementation of the proposed Project would not result in the generation of criteria air pollutants that would exceed MBARD thresholds of significance. Therefore, the proposed Project would not conflict with or obstruct implementation of MBARD air quality plans, and impacts would be **less than significant**.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The MBARD is currently designated as a nonattainment area for State O_3 standards and PM_{10} ambient air quality standards and is designated as unclassified/attainment for all federal air quality standards. MBARD's nonattainment status is attributed to the region's existing development patterns and land use activities (i.e., vehicle use), which contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, MBARD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses whether the proposed Project would result in a cumulatively considerable increase in O_3 or PM_{10} during construction and operation of the proposed Project.

***Short-Term (Construction) Emissions*.** During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxides (NO_x), reactive organic gases (ROG), directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants (TACs) such as diesel exhaust and particulate matter.

Project construction would involve grading where the new retail shop would be located and demolition activities associated with the former marina and fuel system structures. Shallow

trenching would also occur for subterranean placement of the electrical and water lines associated with the proposed Project's installation at the Harris Creek site. The disturbance of soils would have the greatest construction-related effects on air quality. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on San Antonio Road, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity, local weather conditions, soil moisture, silt content of soil, and wind speed. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The MBARD has established standard measures for reducing fugitive dust emissions (PM_{10}). With the implementation of these fugitive dust control measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust related PM_{10} emissions, trucks and construction equipment powered by gasoline and diesel engines would generate CO, O_3, NO_2, SO_2, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. Exhaust emissions during construction would vary daily as construction activity levels change. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site and the routes the construction equipment travels to and from the Project site.

Construction emissions were estimated for the Project using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, consistent with MBARD recommendations. Construction of the proposed Project would take approximately 18 months and would occur in a single phase, expected to commence in January 2023 and be completed by January 2025, which was included in CalEEMod. In addition, the proposed Project would include the demolition of approximately 5,700 square feet of wood structure and 2,000 square feet of metal sheeting and beams, which was also included in CalEEMod. This analysis also assumes the use of Tier 2 construction equipment. Construction-related emissions are presented in Table A, below. CalEEMod output sheets are included in Appendix A.

Table A: Project Construction Emissions (in Pounds per Day)

	ROG	NO_X	CO	Total PM_{10}	Total $PM_{2.5}$
Maximum Project Emissions	6.0	10.8	8.4	0.6	0.4
MBARD Threshold	137.0	137.0	550.0	82.0	55.0
Exceed Threshold?	**NO**	**NO**	**NO**	**NO**	**NO**

Sources: CEQA Air Quality Guidelines (Monterey Bay Unified APCD 2008) and CALEEMOD worksheets provided in Appendix A.

APCD = Air Pollution Control District
CO = carbon monoxide
MBARD= Monterey Bay Air Resources District
NO_X = nitrogen oxides
PM_{10} = particulate matter of 10 microns or less
$PM_{2.5}$ = particulate matter of 2.5 microns or less
ROG = reactive organic gases

As shown in Table A, construction emissions associated with the Project would not exceed the MBARD's thresholds for ROG, NO_X, CO, PM_{10}, or $PM_{2.5}$ emissions. In addition to the construction period thresholds of significance, the MBARD has implemented fugitive dust control measures for dust control during construction. These control measures are intended to reduce the amount of PM_{10} emissions during the construction period. Implementation of **Compliance Measure AQ-1** would ensure that the proposed Project complies with the MBARD's fugitive dust control measures and further reduces the short-term construction period air quality impacts. As such, construction of the proposed Project would not result in emissions that would result in a cumulatively considerable net increase of any criteria pollutant, including O_3 or PM_{10}, for which the region is nonattainment under an applicable federal or State ambient air quality standard, and impacts would be **less than significant**. No mitigation is required.

Long-Term (Operational) Emissions. Long-term air emission impacts are associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips and result in air pollutant emissions affecting the entire NCCAB. The proposed Project would include operation of the new marina, retail shop, and fuel system at the Harris Creek Site in the Lake San Antonio Recreation Area. The proposed Project would not result in an increase in trip generation, including vehicles or boats, within the Project area and Lake San Antonio Recreation Area. The proposed Project would result in low levels of off-site emissions due to energy generation associated with the retail store. However, these emissions would be minimal and would not exceed the pollutant thresholds established by the MBARD. As such, operation of the proposed Project would not result in emissions that would result in a cumulatively considerable net increase of any criteria pollutant, including O_3 or PM_{10}, for which the region is nonattainment under State ambient air quality standards. Impacts would be **less than significant**. No mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: The following compliance measure shall be implemented:

Compliance Measure AQ-1 **Fugitive Dust Control Measures.** The Construction Contractor, in coordination with the Monterrey County Resource Management Agency – Public Works & Facilities, shall ensure, per the Monterey Bay Air Resources District (MBARD) CEQA Air Quality Guidelines, that the following dust mitigation measures be implemented during construction:

- The Construction Contractor shall water all active construction sites as least twice daily. Frequency shall be based on the type of operation, soil, and wind exposure.
- The Construction Contractor shall prohibit all grading activities during periods of high wind (over 15 miles per hour [mph]).

- The Construction Contractor shall apply nontoxic binders (e.g., latex acrylic copolymer) to exposed areas after cut-and-fill operations and then hydroseed the area.
- Haul trucks shall maintain at least 2 feet of freeboard above ground surface.
- The Construction Contractor shall cover all trucks hauling dirt, sand, or loose materials.
- The Construction Contractor shall install wheel washers at entrances to the construction site for all exiting trucks.
- The Construction Contractor shall plant vegetative ground cover in disturbed areas as soon as possible.
- The Construction Contractor shall cover inactive storage piles.
- The Construction Contractor shall sweep streets if visible soil material is carried out from the construction site.
- The Construction Contractor shall limit the area under construction at any one time.

Significance Determination After Mitigation: Less than Significant Impact.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. Sensitive receptors are located over 1,000 feet from the Project site.

Based on the distance from the construction site to the nearest sensitive receptors and the temporary nature of the construction period, sensitive receptors would not be exposed to substantial pollutant concentrations as a result of Project construction. Once the Project is constructed, the proposed Project would include a fuel system that would provide an on-water fueling source for boaters at Lake San Antonio. The California Air Resources Board (CARB) has developed an Air Quality and Land Use Handbook[6] which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The CARB Handbook recommends avoiding siting new,

[6] California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). As identified above, the closest sensitive receptors are located over 1,000 feet from the Project site; thus, the fueling system is not likely to have a significant impact on sensitive receptors given the distance and the dispersion that would occur. In addition, the proposed fuel system would be required to comply with MBARD rules for gasoline vapor recovery. Compliance with MBARD rules would further limit doses and exposures, reducing potential health risk related to gasoline vapors to a level that is not significant. Therefore, nearby sensitive receptors are not expected to be exposed to substantial pollutant concentrations during Project operation. Construction and operation of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be **less than significant.** No mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Odor complaints are most commonly associated with agricultural land uses, wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, and landfills. There are no sensitive receptors adjacent to or near the proposed Project site. During construction of the proposed Project, objectionable odors may emanate from the operation of diesel-powered construction equipment. These odors, however, would be temporary and limited to the proposed Project area. Odors emanating from construction equipment may be detectable; however, because emissions would disperse rapidly, odors generated during construction would be temporary, and with the lack of sensitive receptors in the vicinity of the construction area, construction of the proposed Project would not result in other emissions (such as those leading to odors) affecting a substantial number of people, and impacts would be **less than significant**. No mitigation is required.

The proposed Project would include operation of the new marina, retail shop, and fuel system at the Harris Creek Site in the Lake San Antonio Recreation Area. Objectionable odors may be emitted by fueling activities at the new fueling area; however, such odors would disperse rapidly. The operation of the proposed Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and impacts would be **less than significant**. No mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c. 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?	☐	☒	☐	☐
d. 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?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The analysis presented below is based on the *Biological Resources Assessment* (BRA) prepared by LSA on November 11, 2021 (see Appendix B).[7]

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Project site is located on the western shore of Lake San Antonio in the South Shore area within the Lake San Antonio Recreation Area in Monterey County. The "Project sites" discussed herein refer to the direct Project disturbance limits associated with Project activities at the Harris Creek, Lynch, and Former Marina Sites. The Biological Study Areas (BSAs) for the Harris Creek and Lynch Sites include the direct, temporary and permanent ground disturbance limits plus a buffer of up to 200 feet to account for indirect construction-related impacts such as noise and vibration. A buffered

[7] LSA, 2021a. *Biological Resources Assessment for the Proposed South Shore Marina Project located at Lake San Antonio, Monterey County, California.* November 21.

BSA was not established for the Former Marina Site due to its location within Lake San Antonio and the limited Project activities that would occur (e.g., the decommissioned marina would be towed to the Harris Creek Site and hauled out).

As part of the BRA, a literature review and records search was conducted on September 20, 2021, to identify the existence and potential for occurrence of sensitive or special-status plant and animal species[8] in the Project vicinity. Federal and State lists of sensitive species were also examined. On September 22, 2021, a biological field survey of the Lynch and Harris Creek Sites and BSAs was conducted to document existing site conditions and the potential presence of sensitive biological resources. The Former Marina Site was viewed from the Harris Creek Site; binoculars were utilized to maximize identification and observation of distant species.

Vegetation Communities and Land Cover Types. Vegetation communities and land cover types within the Lynch and Harris Creek BSAs include disturbed non-native grassland, coyote brush (*Baccharis pilularis*) scrub, blue oak (*Quercus douglasii*) woodland, ruderal, open water, lakeshore, disturbed, and developed areas. The Former Marina Site is moored within Lake San Antonio, which is described as open water. Table B provides the total acreages of each vegetation community and land cover type documented within the Lynch and Harris Creek BSAs during the field survey.

Table B: Vegetation and Land Cover Types Within the Lynch and Harris Creek BSAs

Vegetation / Land Cover Type	Lynch BSA (acres)[1]	Harris Creek BSA (acres)[1]
Lakeshore	0.50	3.76
Developed	0.75	8.97
Blue Oak Woodland	0.31	1.50
Coyote Bush Scrub	1.47	7.61
Disturbed	0.02	2.01
Non-native Annual Grassland	0.97	4.23
Blue Oak Tree	0	0.09
Open Water	0	29.62
California Buckwheat Scrub	0	0.97
Ruderal	0	4.60
Total Project Area	**4.02**	**63.36**

Source: LSA (2021).
[1] All presented acreages are approximate and based on geographic information system measurements.
BSA = Biological Study Area

[8] The term "special-status species" refers to those species that are listed or proposed for listing under the California Endangered Species Act (CESA) and/or the Federal Endangered Species Act (FESA), California Fully Protected Species, and California Species of Special Concern. It should be noted that "Species of Special Concern" is an administrative designation made by the CDFW and carries no formal legal protection status. However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

A total of 31 vascular plant species were identified within both BSAs during the September 2021 field survey. The following describes the vegetation and land cover types occurring within the Lynch and Harris Creek BSAs.

- **Developed:** Developed sites consist of paved areas, buildings, and other areas that have been cleared or graded for anthropogenic purposes. Several areas within the Project sites and BSAs contain developed areas.

- **Blue Oak Woodland (*Quercus douglasii* Forest & Woodland Alliance):** This woodland/forest alliance is classified as being dominant to co-dominant with California buckeye (*Aesculus californica),* California juniper *(Juniperus californica),* grey pine (*Pinus sabiniana*)*,* coast like oak *(Quercus agrifolia)* and valley oak *(Quercus lobate)*. Additionally, the herbaceous layer is sparse or grassy, and forbs are present seasonally. Trees observed within the Project sites and BSAs include valley and blue oaks with blue oaks being the dominant species.

- **Non-native Annual Grassland (*Bromus Diandrus-Brachypodium distachyon* Semi-Natural Herbaceous Stands):** This grassland alliance is found in all topographic settings and soil textures throughout the State. Within the BSAs, this vegetation type is dominated by invasive/ pioneering[9] soft chess (*Bromus hordeaceus*),* ripgut brome (*Bromus diandrus*),* wild oat (*Avena fatua*),* and slender oats (*Avena barbata*)* with lesser cover by other non-native plant species such as black nightshade (*Solanum nigrum*),* among others. Several native plants are present at low cover, including doveweed (*Croton Setiger*) and vinegarweed (*Trichostema lanceolatum*). The dominance of non-native weedy species is indicative of historical and recent soil disturbance from the longstanding recreational activities in the area.

- **Coyote Bush Scrub (*Baccharis pilularis* Shrubland Alliance):** Areas mapped as coyote bush scrub are dominated by coyote bush with small patches of mulefat (*Baccharis salicifolia*). This shrubland alliance is found on exposed slopes, terraces, stream sides, and gaps in forest stands in variable soils ranging from sandy to heavy clay. Coyote bush scrub was mapped along the exposed slopes, a transitional area between Lake San Antonio and the current high water mark.

- **Lakeshore:** Lakeshore consists of sparsely vegetated areas and rocky substrate located at the edges of Lake San Antonio.

- **Open Water:** Open water consists of the portion of Lake San Antonio that was inundated at the time of vegetation mapping.

- **California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance):** California buckwheat scrub shrubland alliance is dominated by California buckwheat and may contain an herbaceous layer. This shrubland alliance is found in upland slopes.

- **Disturbed:** Disturbed areas lacked vegetation or supported a sparse cover of ruderal vegetation, with non-native plant species such as shortpod mustard (*Hirschfeldia incana*) being the most

[9] An asterisk denotes non-native species.

frequently encountered plant species. Several other invasive, pioneering plant species were also observed in these areas.

- **Ruderal:** Areas classified as ruderal consist of early successional grassland dominated by pioneering herbaceous plants that readily colonize disturbed ground. Ruderal plants dominant within this area include weedy or pioneering species such as: shortpod mustard, telegraph weed (*Heterotheca grandiflora*), rough cockle-bur (*Xanthium strumarium*), milk thistle (*Silybum marianum*) and Russian thistle (*Salsola tragus*).

There is no designated or proposed critical habitat for any federally or State-listed species within the Lynch and Harris Creek BSAs; therefore, the proposed Project would not result in any temporary or permanent impacts to critical habitat for federally- or State-listed species.

Special-Status Plants. The literature review identified 27 special-status plant species that are known to occur within a nine-quadrangle radius of the Lynch and Harris Creek BSAs. Fourteen of the plant species identified could occur within the Lynch and Harris Creek BSAs based on the presence of potentially suitable habitat and conditions recorded during the field survey. The extensively disturbed nature of the Project sites limit the probability that a population of special-status plant species would occur within the proposed ground disturbance footprint. However, because the September 2021 survey was conducted outside of the typical blooming period for most regionally occurring special-status plant species, the presence or absence of these species could not be definitively determined. In areas where suitable habitat is present, implementation of the proposed Project could adversely affect special-status plant species due to loss of habitat/species associated with development of proposed improvements (e.g., walkway, marina anchors). Implementation of **Mitigation Measure BIO-1**, which requires appropriately-timed special-status plant surveys prior to Project-related ground disturbance and implementation of avoidance/compensatory measures, would reduce potential impacts to special-status plant species to a less-than-significant level.

Special-Status Wildlife. The records/literature search identified 30 special-status animal species that are known to occur within a nine-quadrangle radius of the Lynch and Harris Creek BSAs. Of those 30, three special-status animal species (bald eagle [*Haliaeetus leucocephalus*], San Joaquin kit fox [*Vulpes macrotis mutica*], and northern California legless lizard [*Anniella pulchra*]) have been documented within a 5-mile radius of the Lynch and Harris Creek BSAs. There are no known occurrences of any special-status animal species within the Lynch and Harris Creek BSAs.

Two foraging bald eagles were observed within the Harris Creek BSA during the field survey; however, no potential nest sites were observed within the BSAs at the time of the field survey. No special-status animal species were observed within the Lynch BSA or the Former Marina Site.

Ten special-status animal species, northern California legless lizard, prairie falcon (*Falco mexicanus*), northern harrier (*Circus hudsonius*), western pond turtle (*Emys marmorata*), Monterey hitch (*Lavinia exilicauda harengus*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), Townsend's big-eared bat (*Corynorhinus townsendii*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*) and coast horned lizard (*Phrynosoma blainvillii*), have the potential to occur in the Harris Creek and Lynch BSAs due to the presence of potentially suitable habitat and known occurrence records in the Project vicinity. Specifically, Monterey hitch has the potential to occur within Lake San

Antonio, and western pond turtle has the potential to occur within Lake San Antonio and along the lake shoreline. Coyote bush scrub, located within the area for the proposed walkway, contains suitable habitat for the northern California legless lizard, San Joaquin coachwhip, and coast horned lizard. The remaining species have the potential to forage within the BSAs. No other special-status animal species or signs of such species were observed, and no other special-status wildlife species are expected to occur within the BSAs due to the lack of suitable habitats and the developed/ maintained conditions present throughout the Project sites.

Table C provides the total acreages of each vegetation community and land cover type documented within the Lynch and Harris Creek Project sites that would be directly and permanently impacted by construction activities. The removal of developed and disturbed habitat documented on the Project sites is not anticipated to substantially impact the population sizes of any special-status animal species due the small acreage of impact, low quality of habitat, and setting of the Project sites.

Table C: Direct Permanent Impacts by Land Cover Type

Vegetation / Land Cover Type	Lynch Project site (acres)	Harris Creek Project site (acres)
Lakeshore	0	0.046
Coyote Bush Scrub	0	0.046
Disturbed	0	0.006
Open Water	0	0.16
Developed	0.025	0.002
Ruderal	0	0.020
Total Project Impacts	**0.025**	**0.28**

Source: LSA (2021).

As a result of the construction-related activities, vegetation removal could result in indirect temporary impacts such as erosion, runoff and sediment entering into Lake San Antonio. These potential temporary indirect impacts would be substantively minimized or avoided through the implementation of a Storm Water Pollution Prevention Plan (SWPPP) as described in **Mitigation Measure WQ-1,** provided in Section 4.10, Hydrology and Water Quality. An Erosion Control Plan would be implemented as defined in **Compliance Measure WQ-2,** also provided in Section 4.10.

Construction activities within Lake San Antonio (e.g., placement of the new marina and associated in-water anchors) are not anticipated to impact Monterey hitch or western pond turtle as these species are highly mobile and would be expected to temporarily avoid areas where the marina and anchors are being placed.

Construction activities along the lake shoreline (e.g., development of the walking trail and installation of the marina anchor points) could impact native vegetation and jurisdictional aquatic resources that provide suitable habitat for special-status species, including northern California legless lizard, western pond turtle, San Joaquin coachwhip and coast horned lizard. If present during construction activities, individuals of these species could be exposed to direct impacts such as injury or mortality during ground and vegetation disturbance, or indirect impacts such as noise and vibration which could affect movement, breeding, foraging, or sheltering behaviors. Implementation of **Mitigation Measures BIO-2, BIO-3,** and **BIO-4,** which require a worker environmental awareness

program, pre-construction surveys, construction monitoring, and reporting, and delineation of the Project site, would ensure that impacts on special-status species during construction activities associated with the lakeside portion of the proposed Project are avoided or minimized. With implementation of **Mitigation Measures BIO-2** through **BIO-4**, impacts to special-status wildlife associated with Project construction would be **less than significant**.

Following Project construction, operation of the walking trail and off-shore marina are not anticipated to result in any changes to the existing environmental baseline with respect to special-status species due to the longstanding anthropogenic uses (and same uses under the proposed Project condition). As such, no operational or long-term impacts on special-status species associated with these Project components would occur. However, operation of the new fuel system (e.g., in-water boat fueling) has the potential to result in fuel spills that could enter into jurisdictional areas and impact special-status species. Implementation of **Mitigation Measure HAZ-1**, provided in Section 4.9, Hazards and Hazardous Materials, which requires preparation and implementation of an Operational Spill Prevention, Control and Countermeasure (SPCC) Plan, would reduce operational impacts to special-status animal species to **less than significant**.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures:

MM BIO-1

Springtime Botanical Inventory and Special-Status Plant Avoidance or Compensation. At least 14 days prior to any ground disturbing activities, a qualified biologist, approved by Monterey County, shall conduct a spring botanical survey within the area of direct Project impacts. The survey shall be completed between March and May, at the peak of the spring time blooming season or when regional annual special-status plants are observable. The results of the survey shall be documented in a concise memorandum that includes a full botanical inventory of the Project site prior to any ground disturbance activities.

If special-status plant species are present within the Project site(s) where direct impacts to the species can be avoided, the special-status plant species shall be avoided and a qualified biologist shall clearly delineate the avoidance area. No ground-disturbing activities shall occur within the exclusion area(s).

If special-status plant species cannot be avoided, the qualified biologist shall develop a Project-specific Special-Status Plant Species Mitigation Plan. If a plant listed under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA) is found within the direct impact area, the County of Monterey Public Works, Facilities, & Parks shall obtain any necessary authorization from the appropriate agency prior to impacts and prior to implementing measures specific to that species. The County of

Monterey Public Works, Facilities, & Parks shall review and approve the Special-Status Plant Species Mitigation Plan prior to implementation. Compensatory mitigation shall be provided in accordance with resource agency requirements and/or one or more of the following methods:

- The acquisition, protection, and in-perpetuity management of other existing plant species occurrences/populations at a minimum 1:1 conservation-to-impact ratio.
- The salvage of seed and/or plant material for translocation and/or planting at suitable off-site location(s), with long-term protections, monitoring, and management requirements that ensure the translocated or seeded individuals are self-sustaining for a minimum of 5 years at a minimum 1:1 compensation-to-impact ratio.

MM BIO-2 **Worker Environmental Awareness Program (WEAP).** Prior to any ground disturbance or construction activities, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the western pond turtle, northern California legless lizard and nesting birds, the specific measures that are being implemented to avoid adverse effects to biological and aquatic resources, and the boundaries of the Project site. The training shall explain local, State, and federal regulations/authorizations pertaining to biological and aquatic resources that are/may be applicable to the Project, as well as all measures related to biological and aquatic resources that must be implemented during construction.

MM BIO-3 **Pre-Construction Surveys, Construction Monitoring, and Reporting**. Within 3 days prior to initiation of vegetation removal, a qualified biologist shall conduct a pre-construction survey to ascertain the presence or absence of special-status wildlife species. A qualified biological monitor shall be present during all vegetation clearing activities (including mowing and/or initial ground disturbance) and ground disturbance to ensure avoidance or relocation of special status species, when feasible.

When avoidance or relocation is not feasible, the qualified biologist shall establish a buffer, which would be avoided until the qualified biologist determines that work can proceed. The qualified biologist shall receive approvals from the resource agencies prior to handling any special-status wildlife species. If a federally- and/or State-listed or fully-protected species is observed within the Project site, work activities with potential to directly or indirectly disturb the plant or

animal (as determined by the qualified biologist) shall not occur until the appropriate regulatory agency (California Department of Fish and Wildlife and/or United States Fish and Wildlife Service) has authorized the work to proceed.

The results of all pre-construction surveys and compliance monitoring shall be documented and reported to the County by the qualified biologist and the documentation shall be available upon request throughout the duration of construction activities.

MM BIO-4 **Project Site Delineation.** Prior to the start of construction, the qualified biologist shall clearly delineate (i.e., with stakes, flagging, fencing, and/or temporary signage) the work areas to ensure that no work occurs outside the approved limits of disturbance. This fencing used to delineate the work area will also serve as a temporary barrier to minimize the potential for special-status species to enter work areas during construction and/or become trapped within the fenced Project site.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

b. Would the project 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The records search identified occurrences of two special-status natural (i.e., plant) communities within the nine-quadrangle search area: Sycamore Alluvial Woodland and Valley Oak Woodland.[10] Both of these special-status natural communities occur outside of the BSAs. During the course of fieldwork, one special-status natural community, Blue Oak Woodland, was mapped within a small area within the Harris Creek BSA; however, this natural community would not be impacted by proposed Project activities. No sensitive natural communities are located within the Lynch BSA.

As described further below, multiple components of the proposed Project would be located within Lake San Antonio and the current high water lake shoreline of Lake San Antonio, which are subject to Federal and State regulatory jurisdiction. Installation of the walking trail and marina anchor points along the shoreline would directly impact approximately 0.28 acre of non-wetland waters of the State. Jurisdictional aquatic resource areas are typically considered sensitive natural communities by CDFW. As part of the Project, the County would remove the former concrete marina walkway at the Lynch Site, which is also located within the current high water lake shoreline of Lake San Antonio. Due to the removal of the "fill" from the former Lynch marina walkway and passive restoration of native habitat within this area, the proposed Project impacts to jurisdictional resource functions and

[10] The CNDDB uses sensitive vegetation community names described in the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). No new sensitive natural community records have been added to the CNDDB since the 1990s. Therefore, natural communities mapped by the CNDDB are limited.

values would be offset. Therefore, the proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. This impact would be **less than significant**.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

c. Would the project 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?

Multiple components of the proposed Project would be located within Lake San Antonio and the current high water lake shoreline of Lake San Antonio. Water from Lake San Antonio is released periodically by the Monterey County Water Resources Agency into San Antonio River downstream of the dam. San Antonio River conveys flows into the Salinas River, which conveys flows into the Pacific Ocean, a traditional navigable water of the United States. Due to observable banks and defined connections to other drainage features, Lake San Antonio meets the current regulatory definition of non-wetland waters of the United States subject to U.S. Army Corps of Engineers (USACE) jurisdiction under the federal Clean Water Act (CWA). Any discharge of fill or waste material within Lake San Antonio would also be subject to regulation by the Regional Water Quality Control Board (RWQCB) as waters of the State. Physical modifications within the high water lake shoreline or tributaries would also be subject to California Department of Fish and Wildlife (CDFW) jurisdiction under Section 1602 of the California Fish and Game Code.

The construction of a walkway and installation of marina anchor points within Lake San Antonio's current high water line level at the Harris Creek Site would permanently impact approximately 0.28 acre of non-wetland waters. As discussed above, the County also proposes to remove the former concrete marina walkway at the Lynch Site, which is also located within the current high water lake shoreline of Lake San Antonio. Due to the removal of the "fill" from the former Lynch marina walkway and passive restoration of native habitat within this area, the proposed Project impacts to jurisdictional resource functions and values would be offset. Implementation of **Mitigation Measure BIO-5**, which requires compliance with Sections 401 and 404 of the federal CWA and Section 1602 of the California Fish and Game Code, would ensure impacts to aquatic resources are reduced to a less-than-significant level.

Construction of the walkway and marina anchor points would require operation of construction equipment within delineated jurisdictional aquatic resource areas. Use of construction equipment could result in indirect temporary impacts such as dust, potential fuel spills from construction equipment, construction-related runoff, and erosion, which could potentially enter Lake San Antonio. Construction activities could also result in the germination and proliferation of non-native, invasive plant species, which could outcompete and/or displace native vegetation within the current high water lake shoreline of Lake San Antonio. Implementation of **Mitigation Measure BIO-6**, which requires proper storage of construction equipment, and **Mitigation Measure BIO-7**, which requires

implementation of measures to minimize the spread of invasive plant species would reduce this potential indirect impact to jurisdictional features associated with Project construction to less than significant. Additionally, implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, which require preparation and implementation of a SWPPP and Erosion Control Plan, would control runoff, erosion, and sediment movement during Project construction, thereby minimizing contaminants associated with construction-related activities from inadvertently entering Lake San Antonio.

As described above, operation of the new fuel system could result in potential fuel spills entering into jurisdictional areas. **Mitigation Measure HAZ-1** would be implemented to reduce potential operational-related impacts associated with the fueling system to **less than significant**.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: The following mitigation measures shall be implemented:

MM BIO-5 **Permitting for the South Shore Marina Project**. Prior to construction of the proposed Project, the County of Monterey Public Works, Facilities, & Parks, or designee, shall submit resource agency permit applications and obtain permit authorizations from the United States Army Corps of Engineers (USACE) (Section 404 Nationwide Permit authorization), CDFW (Section 1602 Streambed Alteration Agreement), and Regional Water Quality Control Board (Section 401 Water Quality Certification). The County of Monterey Public Works, Facilities, & Parks, or designee, shall ensure compliance with all permit conditions.

MM BIO-6 **Equipment Staging and Best Management Practices (BMPs).** Prior to the start of construction, the qualified biologist shall delineate construction staging areas away from Lake San Antonio. The designated upland areas shall be located in such a manner as to prevent any loose soil or spill runoff from entering jurisdictional waterways or adjacent sensitive vegetation communities. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities used by the Project Contractor shall occur in these designated staging areas.

MM BIO-7 **Invasive Species Control.** Any plants removed or soil disturbed during the course of construction shall be contained and properly disposed of off site. All mulch, topsoil, seed mixes, or other plantings used for erosion-control shall be free of invasive plant species seeds or propagules. No vegetation listed on the California Invasive Plant Council (Cal-IPC) inventory shall be installed on the Project, and all plant palettes proposed to be installed on the Project site(s) shall be reviewed and approved by a qualified biologist.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife movement includes seasonal migration along corridors, as well as daily movement for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, and routes between breeding waters and upland habitat for amphibians and between roosting and feeding areas for birds.

The majority of wildlife species that occur in the Project vicinity are adapted to the urban-wildland interface, and the Project would not introduce new urban-wildland interface components to the area. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities at the Project sites. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving in close proximity to heavily-used recreational areas and infrastructure would alter their normal functions for the duration of Project construction and then re-establish these functions once all temporary construction effects have been removed. The Project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. As such, impacts pertaining to wildlife movement and wildlife corridors would be **less than significant**.

The Project site and BSAs contain vegetation that provides suitable nesting habitat for a variety of native and migratory bird species, which are protected while nesting. To ensure compliance with the Federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3500–3516, implementation of **Mitigation Measure BIO-8,** which includes pre-construction nesting bird surveys, is required prior to any vegetation clearing or construction activities during the nesting bird season (January 1 through September 30). With implementation of **Mitigation Measure BIO-8**, impacts to nesting birds would be **less than significant**.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures:

MM BIO-8 **Nesting Bird Surveys and Active Nest Avoidance.** Any vegetation removal shall take place outside of the active nesting bird season (i.e., January 1–September 30), when feasible, to ensure compliance with the California Fish and Game Code. Should vegetation removal take place during the nesting bird season, a qualified biologist shall conduct a nesting bird survey prior to clearing activities to ensure that birds are not engaged in active nesting within or immediately adjacent to the Project site. If nesting birds are discovered during pre-construction surveys, the biologist shall identify an appropriate buffer (i.e., up to 500 feet depending on the circumstances and

specific bird species) where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting birds are allowed to take place until after the birds have fledged from the nest, or the qualified biologist has determined that the nest is no longer active.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Protected trees within Monterey County are regulated by the County of Monterey Zoning Ordinance, Title 21, Chapter 21.64.260 – Preservation of Oak and Other Protected Trees. However, construction of the proposed Project would not require any tree removal. Therefore, the proposed Project would not conflict with any local policies or ordinances protecting biological resources. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Monterey County currently does not have a regional Natural Community Conservation Plan nor a Habitat Conservation Plan. As such, implementation of the proposed Project would not conflict with the provisions of such a plan, or other approved local, regional or State habitat conservation plan. **No impact** would occur, and no mitigation measures are required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The information below is based on the *Cultural Resource Survey Study for the Lake San Antonio South Shore Marina Project* prepared by LSA in November 2021.[11]

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

The Monterey County Department of Public Works, Facilities & Parks proposes to replace the former marina with a new marina and fuel system. The Project would require demolition and off-haul of the decommissioned marina, removal of the fuel tank and line from the former Lynch Marina site, and installation of a new marina at the Harris Creek site, including a new fuel tank and fuel line at this location. On October 25, 2021, LSA staff conducted a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University in Rohnert Park. The NWIC, an affiliate of the California Office of Historic Preservation (OHP), is the official repository of cultural resource records and reports for Monterey County. The records search included a review of all recorded historic-period and prehistoric cultural resources within a 0.5-mile radius of the Project site, as well as a review of known resource surveys and excavation reports.

The records search results indicate that one previous cultural resource study has included a portion of the Project site (an archaeological survey that included portions of the Harris Creek Site) and that one previous cultural resource study (an archaeological survey) has included a portion of the 0.5-mile radius of the Project site, southeast of the decommissioned marina. The record search results also indicate that no cultural resources have been previously recorded in the Project site. One cultural resource has been previously recorded within 0.5 mile of the Project site: a portion of which is presumed to be the precontact Northern Salinan village of Assil (Site P-27-003657). Site P-27-003657 is approximately 0.4 mile east of the Lynch Site and would not be impacted by Project implementation. No buildings listed in the Built Environment Resources Directory (BERD) are within the Project site.

[11] LSA. 2021b. *Cultural Resource Survey Study for the Lake San Antonio South Shore Marina Project in Monterey County, California* (LSA Project No. MOC1601.12). November 12.

LSA reviewed geologic maps of California to obtain information regarding sediments at the Project site. Dibblee and Minch[12] mapped the former Lynch Site as being underlain by sandstone sediments from the Vaqueros Formation, which consists of Upper Oligocene- and Lower Miocene-aged deposits dating between 33.9 million years ago (mya) and 5.333 mya. The Harris Creek Site is mapped as being underlain by shale and foraminifera from the Monterey Formation, which consists of Middle Miocene-aged deposits dating between 15.97 mya and 11.608 mya. The Former Marina Site is mapped as being underlain by alluvial sand and gravel stream channel deposits, which consist of Holocene deposits dating to human occupation of the region.

LSA also reviewed aerial photographs that include the Project site. The earliest reviewed aerial photograph dates to 1956, prior to the creation of Lake San Antonio. The photograph dating to 1981 depicts Lake San Antonio as extant, along with the development of the Lynch Marina. The 1981 photograph also depicts the parking area and boat launch ramp at Harris Creek as developed. Lynch Marina was removed between 2012 and 2014. Historic-period maps that include the Project site were also reviewed. The earliest available map reviewed dates to 1919, at which time the San Antonio River flowed less than 1,000 feet away from the Lynch Site through what is currently Lake San Antonio. The same 1919 map depicts a tributary stream of the San Antonio River flowing adjacent to the Harris Creek Site. The map dating to 1948 shows the same alignment of the San Antonio River and the tributary stream, and Lake San Antonio appears for the first time on a map dated to 1967, along with all roads associated with the Lake San Antonio Reservoir Recreation Area.

A pedestrian survey of the Project site was conducted on November 1, 2021. The decommissioned marina was not surveyed due to its location within the water of Lake San Antonio. The Lynch Site area consists primarily of concrete with vegetation lining the edges of the paved areas. The Harris Creek Site is also mostly paved with small areas of exposed sediment on slopes. Rodent burrow holes and backdirt piles on the slopes were examined for cultural resources, and vegetation was occasionally cleared to examine surficial materials. No archaeological cultural resources were identified during the field survey.

Research and the field-survey did not identify archaeological cultural resources or human remains within the Project site. Despite the Project site's proximity to the natural alignment of the San Antonio River, the Project site has undergone surficial disturbance since the 1960s as a result of recreational activities associated with Lake San Antonio, and no evidence of archaeological cultural resources were identified within the Project site. Additionally, the underlying sediments of the Project site (with the exception of the decommissioned marina) do not date to a time that includes human occupation in the region. Based on the limited ground disturbance associated with the proposed Project, the previous disturbance of the Project site, and the negative survey results, no additional cultural resource studies are recommended for the proposed Project, and no further review is necessary per Monterey County Code of Ordinances Section 21.66.050, Subsection D.1.a, which states, "If the Phase I Inventory of Archaeological Resources investigation reveals that the site does not contain archaeological resources, no further review is necessary unless otherwise noted by

[12] Dibblee, Thomas W., and John A. Minch. 2006. Geologic Map of the Tierra Redonda Mountain Quadrangle, Monterey & San Luis Obispo Counties, California. Scale 1:24,000. On file, Santa Barbara Museum of Natural History.

the archaeologist."[13] Per Monterey County Code of Ordinances Section 21.66.050, Subsection F, "if during the course of construction, previously unidentified archaeological resources are discovered, earth-disturbing activities shall stop within the vicinity of the find, and the project planner and a qualified archaeologist shall be contacted to assess the appropriate course of action."[14] (4). Adherence to this subsection of the Code of Ordinances concludes that the proposed Project would not cause an adverse change in the significance of a historical or archaeological resource. Impacts would be **less than significant,** and no mitigation measures are required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

As discussed above, research and the field-survey did not identify archaeological cultural resources or human remains within the Project site. Despite the Project site's proximity to the natural alignment of the San Antonio River, the Project site has undergone surficial disturbance since the 1960s as a result of recreational activities associated with Lake San Antonio, and no evidence of archaeological cultural resources were identified within the Project site. Additionally, the underlying sediments of the Project site (with the exception of the decommissioned marina) do not date to a time that includes human occupation in the region. Based on the limited ground disturbance associated with the proposed Project, the previous disturbance of the Project site, and the negative survey results, no additional cultural resource studies are recommended for the proposed Project, and no further review is necessary per Monterey County Code of Ordinances Section 21.66.050, Subsection D.1.a. Per Monterey County Code of Ordinances Section 21.66.050, Subsection F, "if during the course of construction, previously unidentified archaeological resources are discovered, earth-disturbing activities shall stop within the vicinity of the find, and the project planner and a qualified archaeologist shall be contacted to assess the appropriate course of action."[15] Adherence to this subsection of the Code of Ordinances concludes that the proposed Project would not cause an adverse change in the significance of a historical or archaeological resource. Impacts would be **less than significant,** and no mitigation measures are required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

13 Monterey County. 2014. Code of Ordinances Section 21.66.050, Subsection D.1.a.
14 Ibid.
15 Ibid.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

As discussed above, research and the field-survey did not identify archaeological cultural resources or human remains within the Project site. Despite the Project site's proximity to the natural alignment of the San Antonio River, the Project site has undergone surficial disturbance since the 1960s as a result of recreational activities associated with Lake San Antonio, and no evidence of archaeological cultural resources were identified within the Project site. Additionally, the underlying sediments of the Project site (with the exception of the decommissioned marina) do not date to a time that includes human occupation in the region.

If human remains are encountered during construction activities, the regulatory process outlined in Health and Safety Code (HSC) Section 7050.5 must be followed, which involves coordination with the Native American Heritage Commission and a Native American Most Likely Descendant. Adherence to the HSC and Public Resources Code (PRC) Section 5097.98, which addresses the treatment of Native American human remains, means that the proposed Project would not knowingly disturb human remains but would appropriately address any human remains should any be encountered during Project work. Impacts would be **less than significant,** and no mitigation measures are required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts pertaining to energy. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and energy.

4.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. 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?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The discussion and analysis provided in this section are based on the Monterey County General Plan (2010) and the California Geological Survey (2015).

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. 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.

The proposed Project is located outside of a designated State of California "Alquist-Priolo Earthquake Fault Zone". According to the County General Plan, no known active regional faults cross through the Project area. The nearest active regional fault is the Rinconada Fault Zone, located approximately 1.3 miles east of the Project site.[16] The proposed Project would

[16] California Geological Survey (CGS). 2015. Fault Activity Map of California. Website: maps.conservation.ca.gov/cgs/fam/ (accessed December 7, 2021).

not result in impacts related to rupture of known earthquake faults as designated on the most recent Alquist-Priolo Earthquake Fault Zone map or from other known faults in the Project area. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation and/or Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

ii. Strong seismic ground shaking?

The extent of ground shaking associated with an earthquake depends on the size of the earthquake and the geologic material of the underlying area. As discussed above, the nearest active fault is the Rinconada Fault, located approximately 1.3 miles east of the Project site. According to the Monterey County General Plan, the Project site is located in a seismically active part of central California. Many faults in the region are capable of producing earthquakes, which may cause strong ground shaking at the site. It is likely that the Project site would be subject to moderate seismic shaking during an earthquake, which may expose the fuel infrastructure components of the Project to adverse effects. The new retail building would be developed on the dock of the marina, which may be subject to rolling waves if a seismic event occurs. The proposed Project would be developed in compliance with Title 18, Chapter 18.02 Building Code of the Monterey County Code, which implements provisions for building construction that are developed with seismic building techniques. With compliance of Title 18, Chapter 18.02 Building Code of the Monterey County Code, potential Project impacts associated with seismic ground shaking would be **less than significant**.

Significance Determination: Less than Significant Impact.

Mitigation and/or Compliance Measure: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction occurs when shallow, loose, unconsolidated, fine- to medium-grained sediments saturated with water are subjected to shaking as a result of an earthquake which causes the soils to lose cohesion and shear strength, leading to liquefaction. The possibility of liquefaction occurring at the Project site is dependent upon the occurrence of a significant earthquake in the vicinity; sufficient groundwater to cause high pore pressures; and the grain size, plasticity, relative density, and confining pressures of the soils at the Project site. According to the Monterey County General Plan Environmental Impact Report (EIR), areas in Monterey County most susceptible to liquefaction include the Salinas River and floodplain, the Moss Landing and Elkhorn Slough areas, the Carmel River and floodplain,

the San Antonio and Lockwood Valleys, and the Peachtree and Cholame Valleys.[17] Exhibit 4.4-3 of the Monterey County General Plan EIR indicates that the Project site has a high relative liquefaction susceptibility.[18] However, the majority of the components associated with the proposed Project would be developed on Lake San Antonio and not on land where liquefaction occurs. For construction of the land-side components of the proposed Project (i.e., fuel tank, flexible fuel lines, and underground utilities) the Project contractor would be required to comply with Title 18, Chapter 18.02 Building Code of the Monterey County Code, to ensure liquefaction reduction features are implemented. With compliance with Title 18, Chapter 18.02 Building Code of the Monterey County Code, potential Project impacts associated with seismically induced liquefaction would be **less than significant**.

Significance Determination: Less than Significant Impact.

Mitigation and/or Compliance Measure: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

iv. Landslides?

Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes in areas with significant ground slopes. Natural slopes are located adjacent to the Project site; however, according to the State Seismic Hazards Zone map and Figure 4.4.4 of the Monterey County General Plan EIR,[19] the Project site is located in an area with low susceptibility to landslides. The potential for seismically induced landslides to occur in the Project area would be the same as the existing condition. The proposed Project would not expose people or structures to impacts related to seismically induced landslides. No mitigation is required.

Significance Determination: No Impact.

Mitigation and/or Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

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17 ICF Jones & Stokes. 2008a. op. cit.

18 ICF Jones & Stokes. 2008b. 2007 Monterey County General Plan Draft Environmental Impact Report, Exhibit 4.4-3, Relative Liquefaction Potential. September. Website: www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/resources/2010-general-plan/general-plan-final-environmental-impact-report-feir-information (accessed December 7, 2021).

19 ICF Jones & Stokes. 2008c. 2007 Monterey County General Plan Draft Environmental Impact Report, Exhibit 4.4-4 Earthquake Induced Landslide Susceptibility. September. Website: www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/resources/2010-general-plan/general-plan-final-environmental-impact-report-feir-information (accessed December 7, 2021).

b. Would the project result in substantial soil erosion or the loss of topsoil?

During construction activities, soil would be exposed during grading and excavation activities (especially with subsurface water lines), and there would be an increased potential for soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. Erosion could result in short-term water quality impacts as identified in Section 4.10, Hydrology and Water Quality. As prescribed in **Mitigation Measure WQ-1**, provided in Section 4.10, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared, which would specify construction Best Management Practices (BMPs) that would be implemented during construction activities. Construction BMPs would include Erosion Control BMPs designed to minimize erosion. In addition, as discussed in **Compliance Measure WQ-2**, also provided in Section 4.10, the County Municipal Code requires preparation of an Erosion Control Plan that provides methods to control runoff, erosion, and sediment movement during project construction. With implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, potential impacts associated with erosion or topsoil loss would be reduced to a **less than significant** level.

Implementation of the proposed Project would result in an increase in impervious surface area, associated with construction of new facilities including the new dock, retail shop, and other landside improvements); however, the increase would be nominal compared to existing conditions and is not anticipated to result in an increase in surface runoff or soil erosion. Operation of the proposed Project would not result in impacts associated with soil erosion or the loss of topsoil. No mitigation is required.

Significance Determination: Potentially Significant Impact.

Mitigation and/or Compliance Measures: Refer to **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, in Response 4.10 a) Hydrology and Water Quality, below.

Significance Determination After Compliance: Less than Significant with Mitigation Incorporated.

c. Would the project 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?

The area where the 12,000 gallon fuel tank (landside) would be developed as part of the Project is on a relatively flat area and according to the State Seismic Hazards Zone map and Figure 4.4.4 of the Monterey County General Plan EIR[20], the Project site is in an area with low susceptibility to landslides. The potential for seismically induced landslides to occur in the Project area would be the same as the existing condition. The proposed Project would not expose people or structures to impacts related to seismically induced landslides. No mitigation is required.

Ground subsidence can occur as a result of "shakedown" when dry, low cohesion soils are subjected to earthquake vibration of high amplitude. There is little evidence of widespread land subsidence from drainage of organic soils, underground mining, or hydrocompaction in Monterey County. In

[20] ICF Jones & Stokes. 2008c. op. cit.

general, significant deposits of dry, loose sandy soils do not exist in the Project area as most of the soil is silty clay loam on top of bedrock. The potential for ground subsidence to occur in the Project area is less than significant. No mitigation is required.

As discussed above, Exhibit 4.4-3 of the Monterey County General Plan EIR indicates the Project site has a high relative liquefaction susceptibility.[21] It is therefore likely that portions of the Project (i.e., 12,000-gallon fuel tank, flexible fuel line, and undergrounded utilities) would be subject to potential impacts associated with seismically induced liquefaction. The contractor would be required to comply with Title 18, Chapter 18.02 Building Code of the Monterey County Code, to ensure liquefaction reduction features are implemented. With compliance of Title 18, Chapter 18.02 Building Code of the Monterey County Code, potential Project impacts associated with seismically induced liquefaction would be **less than significant**.

Collapsible soils consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading. Soils prone to collapse generally have a substantial amount of clay and fail (collapse) when subjected to saturation or loading. The proposed Project site is occupied by Linne silty clay loam, 30 to 50 percent slopes (LaF) composed of silty clay on top of bedrock.[22] As the soils on the site contain clay, there is potential that the Project could be susceptible to collapsible soil conditions. The contractor would be required to comply with Title 18, Chapter 18.02 Building Code of the Monterey County Code, to reduce effects to Project components from collapsible soils. With compliance with Title 18, Chapter 18.02 Building Code of the Monterey County Code, potential Project impacts associated with collapsible soils would be less than significant.

Significance Determination: Less than Significant Impact.

Mitigation and/or Compliance Measure: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils generally have a substantial amount of clay particles, which can give up water (shrink) or absorb water (swell). The change in the soil volume can cause structures to move unevenly and crack. The extent or range of the shrink/swell is influenced by the amount and kind of clay present in the soil. Expansive soils can be widely dispersed, and they can occur in hillside areas as well as low-lying alluvial basins. The proposed Project site is occupied by Linne silty clay loam, 30 to 50 percent slopes (LaF) soil with a moderate expansion potential. Although the soil on the Project site is moderately expansive, the contractor would be required to comply with Title 18, Chapter 18.02 Building Code of the Monterey County Code, to reduce effects to Project components from

[21] ICF Jones & Stokes. 2008b. op. cit.

[22] United States Department of Agriculture (USDA). 2019. Natural Resources Conservation Service, Web Soil Survey. Website: websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed November 2, 2021).

expansive soils. With compliance with Title 18, Chapter 18.02 Building Code of the Monterey County Code, potential Project impacts associated with expansive soils would be **less than significant**.

Significance Determination: Less than Significant Impact.

Mitigation and/or Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed Project is a marina replacement Project and would not generate wastewater nor would it require the installation of a septic or alternative waste treatment system. As such, implementation of the proposed Project would not result in impacts associated with soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. No impact would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation and/or Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No paleontological resources or unique geologic features were observed within the Project Area of Potential Effect (APE) during the archaeological survey conducted at the site on November 21, 2021. The soil on the Project site is Linne silty clay loam, 30 to 50 percent slopes (LaF), which consists of well-drained soils on uplands formed in material underlain by calcareous sandstone and shale. Review of geologic maps of California indicates that the Lynch Site is underlain by sandstone sediments from the Vaqueros Formation, which consists of Upper Oligocene- and Lower Miocene-aged deposits dating between 33.9 million years ago (mya) and 5.333 mya and the Harris Creek site is mapped as being underlain by shale and foraminifera from the Monterey Formation, which consists of Middle Miocene-aged deposits dating between 15.97 mya and 11.608 mya. The only subterranean work that will occur on the Project site includes trenching to maximum depths of approximately 30 inches to underground the new irrigation water line and electrical lines. Therefore, construction activities for the proposed Project are not expected to extend deep enough to affect native soils or to impact scientifically important paleontological resources. Nevertheless, in the event that paleontological resources are discovered during Project construction activities (specifically trenching for water and electrical lines) **Compliance Measure GEO-1** would be implemented.

Significance Determination: Potentially Significant Impact.

Mitigation and/or Compliance Measures:

CM GEO-1 **Discovery of Unknown Paleontological Resources.** During construction, if paleontological resources are encountered, work shall be halted immediately within 50 meters (165 feet) of the find until a professional paleontologist can evaluate it. The County of Monterey Department of Public Works, Facilities & Parks and a professional paleontologist shall be immediately contacted by the responsible individual present on site. When contacted, the County's Project Manager and the paleontologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery per Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources put forth by the Society of Vertebrate Paleontology.

Significance Determination After Compliance: Less than Significant with Mitigation Incorporated.

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and,
- Sulfur Hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gasses, like HFCs. PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determine by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically

measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). Emissions estimates for the proposed Project are discussed below. GHG emissions estimates are provided herein for informational purposes only because there is no established quantified GHG emissions threshold.

Short-Term (Construction) GHG Emissions. Construction activities (e.g., demolition and construction activities and motor vehicles transporting construction crew members) would produce combustion emissions from various sources. During construction of the proposed Project, GHGs would be emitted through the operation of construction equipment and from workers' vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Project construction emissions were analyzed using CalEEMod (see Appendix A). Results of the analysis indicate that construction would result in approximately 213.4 metric tons of CO_2e during the 18-month construction period. As indicated above, the MBARD does not have an adopted threshold of significance for construction-related GHG emissions; however, other air districts recommend amortizing GHG emissions over the 30-year life of the project based on the total GHG emissions for construction activities divided by the project life, then adding that number to the annual operational phase GHG emissions. Therefore, when amortized over the 30-year life of the Project, annual emissions would be 7.1 metric tons of CO_2e. Based on the minimal emissions that would be generated by construction of the Project, the proposed Project would not generate GHG emissions that would have a significant impact on the environment, and construction-related impacts would be **less than significant**. No mitigation is required.

Long-Term (Operational) GHG Emissions. Long-term GHG emissions are typically generated from mobile and area sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions include project-generated vehicle trips to and from a project. Area-source emissions would be associated with activities such as landscaping and maintenance. Energy source emissions are typically generated at off-site utility providers as a result of increased electricity demand generated by a project. Waste source emissions generated by a project include energy generated by land filling and other methods of disposal related to transporting and managing project generated waste. In addition, water source emissions associated with a project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

The proposed Project would include operation of the new marina, retail shop, and fuel system at the Harris Creek Site in the Lake San Antonio Recreation Area. The proposed Project would not result in an increase in trip generation, including vehicles or boats, within the Project area and the Lake San Antonio Recreation Area. The proposed Project would result in low levels of off-site emissions due to energy generation associated with the retail store; however, these emissions would be minimal. In addition, the proposed Project is not expected to produce an increase in the generation of GHG emissions associated with area sources, waste sources, or water sources compared to existing conditions. Therefore, operation of the proposed Project would not generate GHG emissions that would have a significant impact on the environment, and operational impacts would be **less than significant.** No mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The County adopted the Municipal Climate Action Plan in 2013[23], which identifies the steps towards the County's goal of reducing GHG emissions to a level that is 15 percent below the 2005 emissions level by 2020. The County is working on updating its GHG reduction goals to meet 2030 goals to reduce emissions by an additional 40 percent by taking buildings to Net Zero, increasing the percentage of employees who telecommute, and incentivizing electric vehicles. In addition, the State has established GHG reduction goals under Assembly Bill (AB) 32, Senate Bill (SB) 32, and Executive Order (EO) S-3-05. As discussed in Response 4.8 a), the proposed Project's short-term construction and long-term operational GHG emissions would be minimal and would not have a significant impact on the environment. Since the proposed Project's GHG emissions would be minimal, the proposed Project would not result in emissions that would conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and **no impact** would occur. No mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

[23] Monterey County. 2013. Monterey County Municipal Climate Action Plan. June.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. 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?	☐	☒	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. 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?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous material are chemicals that could potentially cause harm during an accidental release and are defined as being toxic, corrosive, flammable, reactive, an irritant, or a stronger sensitizer. Hazardous substances include all chemicals regulated under the United States Department of Transportation's "hazardous materials" regulations and the Environmental Protection Agency's (EPA) "hazardous waste" regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The severity of any such exposure is dependent upon the type, amount, and characteristics of the hazardous material involved; the time, location, and nature of the event; and the sensitivity of the individual(s) or environment affected.

Potentially hazardous materials such as dry construction materials, fuels, lubricants, and solvents may be used during work on the proposed Project. The amount of hazardous chemicals present during construction would be used in compliance with existing government regulations. The potential for the release of hazardous materials during Project construction is low and, even if a

release were to occur, it would not result in a significant hazard to the public, Lake San Antonio, the Lake San Antonio Recreation Area, or environment due to the small quantities of these materials being used during Project construction. All construction staging would be located within existing parking lots and other paved areas away from Lake San Antonio. As specified in **Mitigation Measure BIO-6,** provided in Section 4.4, Biological Resources, the construction contractor would be required to adhere to procedures for construction equipment maintenance, refueling, and washing activities to protect water quality. In addition, as described in Section 4.10, Hydrology and Water Quality, the construction contractor would be required to prepare and implement a SWPPP and Erosion Control Plan, as specified in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2,** which would ensure that BMPs to protect water quality are implemented during construction activities. With implementation of **Mitigation Measures BIO-6** and **WQ-1** and **Compliance Measure WQ-2,** potential impacts associated with routine transport, use, or disposal of hazardous materials would be reduced to **less than significant**.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: Refer to **Mitigation Measure BIO-6** in Response 4.4 c) Biological Resources, above and **Mitigation Measure WQ-1** and **Compliance Measure WQ-2** in Response 4.10 a) Hydrology and Water Quality, below.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Exposure to hazardous materials during the construction and operation phases of the proposed Project could result from (1) the improper handling or use of hazardous substances; (2) a transportation accident; or (3) inadvertent release resulting from an unforeseen event (e.g., fire, flood, or earthquake).

As stated above, routine transport, use, or disposal of hazardous materials during construction would be used in compliance with applicable laws and regulations. Potentially hazardous materials such as dry construction materials, fuels, lubricants, and solvents may be used during construction of proposed improvements. The amount of hazardous chemicals present during construction is limited and would comply with existing government regulations. The potential for the release of hazardous materials during Project construction is low and, even if a release were to occur, it would not result in a significant hazard to the public, Lake San Antonio, the Lake San Antonio Recreation Area, or the environment due to the small quantities of these materials being used during Project construction. In addition, construction equipment maintenance, refueling, and washing activities would not be permitted within 60 feet of the high water line of Lake San Antonio to prevent hazardous runoff in the event of a fuel or oil spill. As described above, all construction staging would be located within existing parking lots and other paved areas away from Lake San Antonio. **Mitigation Measure BIO-6** would require the contractor to adhere to procedures for construction equipment maintenance, refueling, and washing activities to protect water quality. In addition, as described in Section 4.10, Hydrology and Water Quality, the construction contractor would be

required to prepare and implement a SWPPP and Erosion Control Plan, as specified in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2,** which would ensure that BMPs to protect water quality are implemented during construction activities. Implementation of **Mitigation Measures BIO-6** and **WQ-1** and **Compliance Measure WQ-2** would reduce potential construction-related impacts associated with hazards from a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment to a **less than significant** level.

Once operational, the proposed Project would include a new marina, new fuel system, a retail shop, and new landscaped walkway to provide pedestrian access between the parking area and the marina gangway. Household cleaners may be used on these facilities for maintenance and cleaning activities. The new fuel system would include an aboveground tank that would hold 12,000 gallons of fuel and a new flexible fuel pipeline that would connect to the fuel dock at the new marina. As with any operating fueling station, the potential exists that fuel spills may occur as patrons fill their boats. In order to reduce spilling of fuel on the fuel dock or in the waters of Lake San Antonio, signage would be posted on the fuel dock, reminding customers not to top off fuel tanks and ensure that bilge blowers on their boats are running during fueling activities. In the event of a fuel spill, **Mitigation Measure HAZ-1** would require the County to prepare an Operational Spill Prevention, Control and Countermeasure (SPCC) Plan, which would be available at the fuel dock of the new marina, outlining information about the fueling facility, fueling containment devices, and spill protocols. Implementation of **Mitigation Measure HAZ-1** would reduce potential operational-related impacts associated with hazards from a reasonably foreseeable upset and accident conditions involving the release of hazardous materials (fuel) into the environment to a **less than significant** level.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: The following mitigation measure shall be implemented:

MM HAZ-1 **Operational SPCC Plan.** Prior to commencement of Project operation, the County of Monterey (County) shall prepare a Spill Prevention, Control and Countermeasure (SPCC) Plan for the fuel system at the new marina at the Harris Creek Site. The Operational SPCC Plan, at a minimum, shall contain information about the facility, the petroleum storage containment, inspections, a site diagram with locations of tanks (above and below ground), drainage, and other pertinent details, measures to be taken to prevent fuel spills or measures to be taken to contain and clean up fuel spills, and training modules for fuel station/docking employees pertaining to fuel spill prevention and fuel spill containment and cleanup. Once completed, the Operational SPCC Plan shall be available at the fuel station/docking area at the marina and shall be available for easy access by fuel station/docking employees.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The proposed Project is in a rural portion of Monterey County in the San Antonio Lake Recreation Area. The nearest school to the proposed Project, San Antonio Union School, located at 67550 Lockwood/Jolon Road in Lockwood, is approximately 19 miles from the Project site. As such, the proposed Project (during construction or operation) would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

According to the regulatory database search performed on the California Department of Toxic Substances EnviroStor website,[24] the Project site is not included or near (within 1 mile) in any hazardous materials databases pursuant to Government Code Section 65962.5. Implementation of the proposed Project would not create a significant hazard to the public or the environment. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The proposed Project is located in a rural portion of Monterey County in the San Antonio Lake Recreation Area. Mesa Del Rey Airport (250 Airport Road) in King City, approximately 47 miles from the proposed Project, is the closest public use airport to the Project site. San Ardo Field Airport, in the community of San Ardo approximately 35 miles from the proposed Project, is the closest private use airport to the Project site. The Project site is not located with an airport land use plan. Due to the distance of the Project site from private/public use airports, implementation of the proposed

[24] Department of Toxic Substances Control (DTSC). 2021. EnviroStor Website: www.envirostor.dtsc.ca.gov/public/map/?myaddress=2610+Lake+SAn+Antonio+Road%2C+Bradley%2C+CA (accessed December 7, 2021).

Project would not result in a safety hazard or excessive noise for people residing or working in the Project area from an airport. **No impact** would occur, and no mitigation measures are required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Monterey County Office of Emergency Services has prepared the Draft 2021 Evacuation and Transportation Plan that outlines emergency evacuation routes in the County, including those in the vicinity of the Lake San Antonio Recreation Area and the Project site.[25] The Project site is located in the South County Region Evacuation Area. Interlake Road, the closest evacuation route to the Project site, is identified as a secondary evacuation route. Primary evacuation routes in the Project area include US-101 and Highway 198-Long Valley Road. The proposed Project would be implemented on the western shoreline of Lake San Antonio in the South Shore area of the Lake San Antonio Recreation Area. Access to the Project site is via San Antonio Road, which connects to Interlake Road. Implementation of the proposed Project would not occur on San Antonio Road nor Interlake Road, and detours would not be required on either of these roads during the Project construction period. As such, both of these roads would continue to provide unobstructed evacuation from the Lake San Antonio Recreation Area during Project construction and once the Project is operational. Implementation of the proposed Project would not impair implementation of or physically interfere with a Monterey County adopted emergency response plan or emergency evacuation plan. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The proposed Project is located in a rural area of Monterey County within the Lake San Antonio Recreation Area. Areas around the Project site are occupied by natural vegetation, water, and natural topography. No urban areas (i.e., residential, commercial, or industrial Uses) are located adjacent or near the Project site. According to the Fire Hazard Severity Zones map, adopted by CAL FIRE in 2007 and provided in the County General Plan, the Project site is located in the State

[25] Monterey County Office of Emergency Services. 2021. *Draft 2021 Evacuation and Transportation Plan South County Region Evacuation Guide.* Website: www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/response/evacuation-guide/evacuation-plan (accessed November 3, 2021).

Responsibility Area (SRA) moderate and high Fire Hazard Severity Zone. The proposed Project is a marina replacement project, which would require demolition of the existing facility and development of the new marina facility, including a fuel dock and small retail building, at the Harris Creek Site. Fire suppression features would be built into the Project (specifically the new fuel dock) which would reduce the potential for fire. The proposed Project would not alter the risk or impacts to area residences from wildland fires as compared to existing conditions. Impacts would be **less than significant,** and no mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction of the proposed Project would result in a small net increase in the amount of impervious surface area (i.e., new small retail shop, dock, and walkway) and an associated increase in the rate and volume of stormwater runoff. The proposed Project would be required to comply with County regulations related to stormwater runoff, including implementation of post-construction stormwater management. Compliance with these regulations would ensure that long-term operation of the proposed Project would have a less than significant impact on water quality.

Disturbance during construction would result in erosion and associated discharge of additional sediment and/or other pollutants. During construction, the total disturbed area would be approximately 0.3 acre. The National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) for Construction (Order 2009-0009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ, NPDES No. CAS000002)[26] requires construction sites over one acre that do not

[26] State Water Resources Control Board (SWRCB). 2009. Division of Water Quality. *Construction General Permit Fact Sheet*. 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ.

qualify for a waiver to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). However, because the proposed Project would disturb less than 1 acre during construction, the Project would be exempt from the CGP. Nevertheless, due to work occurring within and in close proximity to Lake San Antonio, Construction BMPs, including the preparation of a SWPPP, would be required to minimize erosion and prevent spills within Lake San Antonio, as specified in **Mitigation Measure WQ-1**. The SWPPP shall incorporate Best Management Practices (BMPs) to control sedimentation and runoff.

The Project is also required to comply with the provisions of the Monterey County Erosion Control Ordinance (Municipal Code, Title 16, Chapter 16.12) as specified in **Compliance Measure WQ-2**. The County Municipal Code would require preparation of an Erosion Control Plan that describes the methods for the control of runoff, erosion, and sediment movement during Project construction.

When Construction BMPs are properly designed, implemented, and maintained to address pollutants of concern, as required in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, pollutants of concern would be retained on the Project area so they would not reach receiving waters (i.e., Lake San Antonio). With implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, impacts associated with the violation of water quality standards and waste discharge requirements or degradation of surface water quality would be reduced to a **less than significant** level.

Construction of the proposed Project would not require dewatering activities. Shoreline anchors associated with the new marina would be buried in the shoreline above the high water level of Lake San Antonio, and the in-water anchors would be placed on the bottom of the lake. The decommissioned marina currently moored in Lake San Antonio would be towed to the Harris Creek Site, removed from the water, and hauled off site.

Compliance with County regulations related to stormwater during operation, the CGP, and **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, would ensure that the proposed Project does not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction and operation of the proposed Project. Impacts would be **less than significant**, and no mitigation is required.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: The following mitigation measure and compliance measure shall be implemented:

MM WQ-1 **Construction Best Management Practices.** Prior to the start of construction, the County of Monterey (County) shall ensure that the Construction Contractor prepares and implements a Storm Water Pollution Prevention Plan (SWPPP) to address all construction-related activities, equipment, and materials that have the potential to affect water quality. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater and include Best Management Practices (BMPs) to control the pollutants (e.g.,

Sediment Control, Erosion Control, and Good Housekeeping BMPs). Consistent with the Construction General Permit (CGP), the SWPPP shall adhere to the following requirements:

- The SWPPP shall include measures to avoid creating contaminants, minimize the release of contaminants, and water quality control measures to minimize contaminants from entering Lake San Antonio/Harris Creek or percolating into the ground during and following the completion of construction.
- Fluvial erosion and water pollution related to construction shall be controlled by the SWPPP and kept current throughout Project construction.
- The SWPPP shall include BMPs, as appropriate, given the specific circumstances of the site and Project.
- The SWPPP shall be submitted to the Regional Water Quality Control Board (RWQCB) in compliance with the requirements of the CGP.
- A spill prevention and countermeasure plan shall be incorporated into the SWPPP.

CM WQ-2 **Erosion Control Plan.** During the plans, specifications, and estimates phase, an Erosion Control Plan shall be prepared and implemented by the County of Monterey or its designated contractor in compliance with the provisions of the Monterey County Erosion Control Ordinance (Municipal Code, Title 16, Chapter 16.12). The Erosion Control Plan shall indicate the proposed methods for the control of runoff, erosion, and sediment movement during Project construction.

Significance Determination After Compliance Measure: Less than Significant with Mitigation Incorporated.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Landside features associated with the proposed Project include installation of a 12,000-gallon fuel tank, construction of a pedestrian walkway along the existing launch ramp, installation of a flexible fuel line connecting the fuel tank to the dock at the new marina, and undergrounding of utilities (i.e., electrical lines and water lines) that would connect to the retail store on the dock of the new marina. The proposed Project would not result in the construction of large areas of impervious surfaces that would prevent water from infiltrating into the ground nor would it result in direct

additions or withdrawals to existing groundwater in the area. No dewatering activities would occur during Project construction. For these reasons, implementation of the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Construction activities (i.e., grading for the 12,000-gallon fuel tank and walkway and trenching for the water line/electrical line) would disturb small areas of soil and increase the potential for soil erosion and transport of sediment to off-site locations. However, the construction contractor would be required to comply with County regulations related to stormwater during construction and the CGP, as described in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**. As specified in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, a SWPPP and Erosion Control Plan would be prepared for the proposed Project, and construction BMPs detailed in these plans would be implemented during construction activities to minimize erosion and siltation on or off the Project site.

In the existing condition, stormwater runoff flows from the Project site into surrounding naturally vegetated areas and Lake San Antonio. The portions of the Project site that would be disturbed during construction would be largely restored to pre-construction conditions and the existing drainage patterns would be maintained. Because the proposed Project would maintain the existing drainage pattern in the Project area, the proposed Project would not cause a substantial increase in erosion or siltation on or off site. Construction and operation of the proposed Project would not result in substantial erosion or siltation on or off-site due to alterations to existing drainage patterns. Impacts would be **less than significant,** and no mitigation is required.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: Implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

During construction, small areas of soil (i.e., grading for the 12,000-gallon fuel tank and walkway and trenching for the water line/electrical line) would be disturbed and compacted, which can increase the rate and amount of surface runoff and the potential for localized flooding compared to existing conditions. As discussed in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, implementation of construction BMPs to control and direct surface runoff on site would be required. By controlling and directing surface runoff on site, BMPs would direct additional runoff into Lake San Antonio, which has additional capacity. Because additional runoff during construction would flow to Lake San Antonio, construction activities would not result in on- or off-site flooding. With adherence to **Mitigation Measures WQ-1** and **Compliance Measure WQ-2,** construction impacts related to altering the existing drainage pattern of the site or area or increasing the rate or amount of surface runoff in a manner that would result in flooding on- or off-site would be reduced to **less than significant**.

As under existing conditions, stormwater runoff from the Project area would run into the naturally vegetated land around the site and Lake San Antonio. Because the area disturbed during construction would be restored to pre-construction conditions, operation of the proposed Project would maintain the existing drainage pattern in the Project area and all stormwater runoff from the Project area would continue to flow into the naturally vegetated land around the site and Lake San Antonio. The proposed Project would nominally increase impervious surface areas within the Project area; however, the new impervious surfaces would not create a significant amount of additional runoff.

Construction and operation of the proposed Project would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding due to alterations to existing drainage patterns. Impacts would be **less than significant,** and no mitigation is required.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: Implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Construction activities (i.e., grading for the 12,000-gallon fuel tank and walkway and trenching for the water line/electrical line) would compact soil, which can increase stormwater runoff. In addition, construction-related pollutants, such as liquid and petroleum products and former marine debris, could be spilled, leaked, or transported via stormwater runoff into Lake San Antonio during construction activities. The proposed Project would implement **Mitigation Measure WQ-1** and **Compliance Measure WQ-2,** which require preparation of a SWPPP and Erosion Control Plan and implementation of construction BMPs to control stormwater runoff, including the discharge of

pollutants. With adherence to **Mitigation Measure WQ-1** and **Compliance Measure WQ-2,** impacts related to the creation or contribution of runoff that would exceed the capacity of the stormwater drainage system or contribute substantial additional sources of polluted runoff would be reduced to **less than significant**.

As under existing conditions, stormwater runoff from the Project area would run into the Harris Creek Channel, naturally vegetated land around the site, and Lake San Antonio. Because the area disturbed during construction would be restored to pre-construction conditions, operation of the proposed Project would maintain the existing drainage pattern in the Project area, and all stormwater runoff from the Project area would continue to flow into the Harris Creek Channel, naturally vegetated land around the site, and Lake San Antonio. The proposed Project would nominally increase impervious surface areas within the Project area; however, the new impervious surfaces would not create a significant amount of additional runoff.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: Implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2.**

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

iv. Impede or redirect flood flows?

According to the Federal Emergency Management Agency Flood Map Service Center, Panel Number 06053C1900G (effective April 2, 2009), portions of the Project site (below the high water level line of Lake San Antonio) are located in flood area Zone A.[27] Specific areas located in flood area Zone A include the existing parking lot north of the Harris Creek launch ramp, a portion of the existing launch ramp, and portions of the lake shore where the dock anchors would be placed. Land with Zone A designations are subject to inundation by the 1 percent annual chance flood event (100-year floodplain) with base flood elevations not determined.

The proposed Project would include the demolition and removal of the former marina, removal of the existing fuel tank and line from the Lynch Site, launching of a new marina dock, construction of a small retail shop on the new marina dock, and installation of new fuel infrastructure at the Harris Creek Site. The 12,000-gallon fuel tank would be developed above the high water line level of Lake San Antonio and would not be developed in the Zone A flood area. The flexible fuel line from the fuel tank would traverse down the Harris Creek launch ramp (aboveground) to the new marina and dock, which would be floating on the water of Lake San Antonio. The fuel line would be attached to the bottom of the dock of the new marina and would not be located in an area that would impede or redirect flood flows in flood area Zone A or within Lake San Antonio. Based on the design of the

[27] Federal Emergency Management Agency (FEMA). 2009. FEMA Flood Map Service Center: Search by Address. Website: msc.fema.gov/portal/search?AddressQuery=Lake%20San%20Antonion#searchresults anchor (accessed November 4, 2021).

new marina and accessory features, implementation of the proposed Project would not impede or redirect flood flows. Impacts would be **less than significant**, and no mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation or compliance measures.

Significance Determination After Mitigation: Less than Significant Impact.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Flood Hazard. As described above, portions of the Project site (below the high water level line of Lake San Antonio) are in a flood Zone A area. Elements of the proposed Project that would be constructed within the flood zone, include the flexible fuel line and the new marina and dock, which would be floating on the water of Lake San Antonio. Both of these features would be designed to accommodate varying water levels and would not risk release of pollutants due to Project inundation. Dam failure, defined as the structural collapse of a dam that releases the water stored in a reservoir behind the dam, is generally the result of the structure's age, inadequate spillway capacity, or structural damage caused by an earthquake or flood. Although the proposed Project is on the western shore of Lake San Antonio in the South Shore area of the Lake San Antonio Recreation Area, according to Figure E-4 of the Monterey County Multi-Jurisdictional Hazard Mitigation Plan,[28] the Project site is not in a dam inundation area. Therefore, the proposed Project would result in a **less than significant** impact related to the release of pollutants in the event of inundation from flooding from dam failure, and no mitigation is required.

Tsunami Hazard. Tsunamis are generated wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, seafloor landslides, rock falls, and exploding volcanic islands. According to Figure E-10 of the Monterey County Multi-Jurisdictional Hazard Mitigation Plan, the Project site is not located in a Tsunami Hazard Zone. Due to the distance of the proposed Project from the ocean (greater than 25 miles) and its location outside of any tsunami inundation area, the risk associated with tsunami is not considered a potential constraint or a potentially significant impact. Therefore, the proposed Project would result in **no impact** related to the release of pollutants in the event of inundation from a tsunami.

Seiche Zone. Seiching is a phenomenon that occurs when seismic groundshaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention structures to fail and flood downstream properties. The proposed Project is located on the western shore of Lake San Antonio within the South Shore area of the San Antonio Recreation Area. The new marina developed at the Harris Creek Site would be designed as a floating dock that would withstand waves generated by a seiche caused by seismic or wind events. The fuel pipe connecting from the fuel tank to the new marina would be flexible, which would allow

[28] AECOM and Monterey County. 2016. Monterey County Multi-Jurisdictional Hazard Mitigation Plan. Website: www.co.monterey.ca.us/home/showpublisheddocument/13709/636112627645400000 (accessed November 4, 2021).

movement of the pipe in the event of lake water level rises or waves (i.e., seiches) without breaking, fracturing, or damaging the pipeline. The fuel tank would be built far enough above the high water level line of Lake San Antonio so that large waves or seiches would not inundate these facilities and cause pollutant releases. The new marina, dock, and retail store on the dock would not be subject to a seiche as the marina would be designed to float on Lake San Antonio during conditions where waves could be large. Overall, implementation of the proposed Project would not be at risk of releasing pollutants due to flooding, dam inundation, a tsunami, or a seiche. Impacts would be **less than significant**, and no mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation or compliance measures.

Significance Determination After Mitigation: Less than Significant Impact.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project is within the jurisdiction of the Central Coast Regional Water Quality Control Board (RWQCB). The Central Coast RWQCB adopted a Water Quality Control Plan (i.e., Basin Plan) (June 1971, with amendments effective on or before June 2019)[29] which designates beneficial uses for all surface and groundwater within its jurisdiction and established the water quality objectives and standards necessary to protect those beneficial uses. As summarized below, the Project would comply with the applicable NPDES permits and State and local regulations and would implement construction BMPs to reduce pollutants of concern and stormwater runoff. NPDES permits and associated BMPs are designed to ensure that the water quality objectives in the Water Quality Control Plan are not exceeded and that beneficial uses of receiving waters are not impaired.

During construction activities, small areas of soil would be disturbed, and there would be an increased potential for soil erosion compared to existing conditions. Additionally, construction-related pollutants such as liquid and petroleum products and former marine debris may be spilled or transported via stormwater runoff into Lake San Antonio. As specified in **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**, the proposed Project would require preparation of a SWPPP and Erosion Control Plan and implementation of construction BMPs to control stormwater runoff, including the discharge of pollutants. Because the proposed Project would comply with NPDES requirements including implementation of construction BMPs, the Project would not result in water quality impacts that would conflict with the Central Coast RWQCB's Basin Plan. Therefore, impacts related to conflict with a water quality control plan would be **less than significant**.

The Sustainable Groundwater Management Act (SGMA) was enacted in September 2014. SGMA requires governments and water agencies of high and medium priority basins to halt overdraft of

[29] Central Coast Regional Water Quality Control Board. 2019. Water Quality Control Plan for the Central Coastal Basin. June 14. Website: www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf (accessed December 16, 2021).

groundwater basins. SGMA requires the formation of local groundwater sustainability agencies (GSAs) in high and medium priority basins that are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. The Project site is located within the Lockwood Valley Groundwater Basin, which is identified by the Department of Water Resources as a low priority basin;[30] therefore, a Groundwater Sustainability Plan has not been prepared for the Lockwood Valley Groundwater Basin. The proposed Project does not have the potential to impact groundwater quality, interfere with groundwater recharge, or decrease groundwater supplies as no dewatering activities would occur during Project construction and no direct additions or withdrawals to existing groundwater would occur during Project construction and operation. Furthermore, because there is not currently an adopted Groundwater Sustainability Plan, the proposed Project would not conflict with or obstruct the implementation of the Lockwood Valley Groundwater Basin Sustainability Plan. Therefore, **no impact** related to the conflict or obstruction of a sustainable groundwater management plan would occur.

Significance Determination: Potentially Significant Impact.

Mitigation/Compliance Measures: Implementation of **Mitigation Measure WQ-1** and **Compliance Measure WQ-2**.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

[30] California Department of Water Resources (DWR). 2021. SGMA Basin Prioritization Dashboard, Groundwater Basins 2021. Website: gis.water.ca.gov/app/bp-dashboard/p2/ (accessed November 4, 2021).

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts associated with land use and/or planning at the Project site. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and land use/planning.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts to mineral resources. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and mineral resources.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of 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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c. 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 2 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?	☐	☐	☐	☒

a. Would the project result in generation of 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?

The proposed Project is located in rural Monterey County within the Lake San Antonio Recreation Area on the west shore of Lake San Antonio. The closest sensitive noise receptor to the Project site is Harris Creek Campground, approximately 1,000 feet north of the Project site.

The County General Plan Policy S-7.9 stipulates that no construction activities pursuant to a County permit shall be allowed within 500 feet of a noise-sensitive land use during the evening hours of Monday through Saturday, or anytime on Sunday or holidays, prior to completion of a noise mitigation study. Typically, when not specified in a policy or ordinance, daytime hours occur from 7:00 a.m. to 7:00 p.m. while evening and nighttime hours occur from 7:00 p.m. to 7:00 a.m.

Section 10.60.030 of the County Municipal Code prohibits the operation of any machine, mechanism, device, or contrivance which produces a noise level exceeding 85 A-weighted decibels (dBA) measured 50 feet from the point source.

There are two types of short-term activities that could generate a substantial temporary increase in ambient noise levels during project construction: (1) equipment delivery and construction worker commutes, and (2) project construction activities.

The first category of activities that could generate short-term construction noise that could result in an increase in ambient noise levels involves transporting construction equipment, materials, and construction workers to the Project site. These transportation activities would incrementally raise noise levels on San Antonio and Interlake Roads leading to the Project site. As shown in Table D, below, the single-event noise from equipment trucks passing at a distance of 50 feet would reach a maximum level of 84 dBA maximum instantaneous sound level (L_{max}). However, heavy equipment for grading and construction activities would be moved on site once, and then would remain on site

Table D: Typical Construction Equipment Noise Levels

Equipment Description [1]	Maximum Noise Level (L_{max}) at 50 Ft [2]
Backhoes	**80**
Compactor (ground)	80
Cranes	**85**
Dozers	**85**
Dump Trucks	**84**
Excavators	**85**
Flat Bed Trucks	84
Front-end Loaders	**80**
Graders	85
Impact Pile Drivers	95
Jackhammers	85
Pick-up Truck	**55**
Pneumatic Tools	85
Pumps	77
Rock Drills	85
Rollers	85
Scrapers	85
Tractors	84
Vibratory Hammer/Pile Driver	**95**

Source: *FHWA Roadway Construction Noise Model* (January 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Equipment shown in **bold** is expected to be used on site.
[2] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
FHWA = Federal Highway Administration
ft = foot/feet
L_{max} = maximum instantaneous sound level

for the duration of construction. This one-time trip, when heavy construction equipment is moved on- and off-site, would not add to the daily traffic noise in the Project vicinity. Projected traffic from construction worker commutes would be minimal when compared to existing traffic volumes on San Antonio and Interlake Roads, and its associated long-term noise level change would not be perceptible. Potential temporary noise associated with impacts from equipment transport and construction worker commutes would be **less than significant**. No mitigation is required.

The second category of activities that could generate short-term construction noise that could result in an increase in ambient noise levels involves noise generated by equipment during Project construction. Construction is performed in discrete steps, each having its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases change the character of the noise generated, as well as the noise levels in the Project area as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table D (above) lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments based on a distance of 50 feet from such equipment.

Construction of the proposed Project is anticipated to use a backhoe, bulldozer, and pick-up truck. As seen in Table D (above), the maximum noise level generated by each backhoe, bulldozer, and pick-up truck is assumed to be approximately 80 dBA $L_{max,}$ 85 dBA $L_{max,}$ and 55 dBA L_{max} at 50 feet, respectively. Each piece of construction equipment operates as an individual point source. The worst-case composite noise level would be 86.2 dBA L_{max} at a distance of 50 feet from an active construction area. The nearest sensitive receptor, Harris Creek Campground, 1,000 feet from the nearest construction activity, would be exposed to a maximum noise construction level of 60.2 dBA L_{max}.

The maximum short-term construction noise at the sensitive noise receptor (Harris Creek Campground) would be below noise level standards established by the County. For this reason, there would be no substantial temporary increase in ambient noise levels in the vicinity of the proposed Project during construction activities. Impacts would be **less than significant**, and no mitigation is required.

The proposed Project is a marina relocation/improvement project on the west shore of Lake San Antonio in the South Shore area of the Lake San Antonio Recreation Area. Operation of the proposed Project would not result in any long-term changes in noise sources or noise levels in the Project area beyond the existing conditions. Operation of the proposed Project would not generate a permanent increase in ambient noise levels in the vicinity of the proposed Project in excess of established County standards. Impacts would be **less than significant,** and no mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Groundborne noise in buildings and structures is produced when interior surfaces such as walls and floors are "excited" into motion by groundborne vibration transmitted into a given structure. In general, groundborne vibration from standard construction practices is only a potential structural damage issue when within 25 feet of sensitive structures. Because construction is not proposed within 25 feet of any sensitive or fragile structures, construction of the proposed Project would not generate excessive groundborne vibration that would impact sensitive structures in the Project vicinity. The generation of excessive groundborne vibration or groundborne noise levels would not occur during Project construction activities. **No impact** would occur, and no mitigation is required.

The proposed Project is a marina relocation/improvement project, and implementation of the proposed Project would not generate additional vehicular traffic or other potential sources of groundborne vibration. Operation of the proposed Project would not generate excessive groundborne vibration or groundborne noise levels. No mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

c. 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 2 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?

The proposed Project is in a rural portion of Monterey County in the San Antonio Lake Recreation Area. Mesa Del Rey Airport (250 Airport Road) in King City, approximately 47 miles from the proposed Project, is the closest public use airport to the Project site. San Ardo Field Airport in the community of San Ardo, approximately 35 miles from the proposed Project, is the closest private use airport to the Project site. As airports are not within 2 miles of the proposed Project, construction and operation of the proposed Project would not expose people residing or working the area to excessive airport-related noise levels. **No impact** would occur, and no mitigation is required.

Significance Determination: No Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: No Impact.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned 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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts to population and housing. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project as it relates to population and housing.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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 any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts to public services. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and public services.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Proposed Project construction and operation would not result in recreation impacts. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and recreation.

4.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts pertaining to transportation. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and transportation.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. 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)? Or	☐	☐	☐	☒
ii. 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.	☐	☐	☐	☒

The information below is based on the *Cultural Resource Survey Study for the Lake San Antonio South Shore Marina Project* prepared by LSA in November 2021.[31] The consultation study area for tribal cultural resources is the area where ground-disturbing activities would occur, and includes the maximum extent of ground disturbance, including access routes, staging, and work areas.

a. 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:

i. 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)? Or

On October 25, 2021, LSA staff conducted a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University in Rohnert Park. The records search included a review of all recorded historic-period and prehistoric cultural resources within a 0.5-mile radius of the Project site, as well as a review of known resource surveys and excavation reports. The record search results indicate that no cultural resources have been previously recorded in the Project site. One cultural resource has been previously recorded within 0.5 mile of the Project site: a portion of which is presumed to

31 LSA. 2021b. op. cit.

be the precontact Northern Salinan village of Assil (Site P-27-003657). Site P-27-003657 is approximately 0.4 mile east of the Lynch Site and would not be impacted by Project implementation.

In December 2021, the County provided formal notification to those California Native American tribes that have requested notification of all new potential Mitigated Negative Declarations within the County pursuant to the consultation requirements of AB 52. On January 13, 2022, a tribal representative from the Salinan Tribe of Monterey, San Luis Obispo Counties responded via email expressing concerns that unknown cultural resources may be impacted by the project and requested that all ground disturbing activities be monitored by a cultural resource specialist from the Salinan Tribe of Monterey, San Luis Obispo Counties. No listed or eligible tribal cultural resources were identified in the email response.

The proposed project would not cause a substantial adverse change in a California Native American tribal cultural resource that is listed or eligible for listing in the California Register or in a local register of historical resources, as defined in PRC Section 5020.1(k).

Significance Determination: No Impact

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination after Mitigation/Compliance: No Impact

ii. 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As described above, the County received an email response to the request for consultation from the tribal representative from the Salinan Tribe of Monterey, San Luis Obispo Counties on January 13, 2022. As part of the consultation, tribal representatives did not provide substantial evidence of any tribal cultural resources occurring in or within the vicinity of the project site.

Nevertheless, the Tribal Administrator for the Salinan Tribe of Monterey, San Luis Obispo Counties requested that all ground disturbing activities be monitored by a cultural resource specialist from the Salinan Tribe of Monterey, San Luis Obispo Counties. The County agreed to the requirement that tribal representative monitor ground-disturbing activities.

Implementation of **Mitigation Measure TCR-1** would satisfy the agreement between the County and tribal representatives under AB 52 and reduce potential impacts from the proposed project to a less than significant level. In the unlikely event that previously unidentified archaeological resources are discovered by the tribal monitor, adherence to Monterey County Code of Ordinances Section 21.66.050, Subsection F, as described in Section 4.5, Cultural Resources, would reduce the potential for impacts to unidentified archaeological resources to a less than significant level.

Significance Determination: Less than Significant

Mitigation/Compliance Measures:

Mitigation Measure TCR-1 **Tribal Cultural Resources Monitoring.** Prior to ground-disturbing activities, the County of Monterey Public Works, Facilities, & Parks shall contact the Salinan Tribe of Monterey, San Luis Obispo Counties and request that it submit the name of the designated monitor. The designated tribal monitor shall be on-site during all ground-disturbing activities. In the event that tribal cultural resources or Native American archaeological deposits are identified during monitoring, the County shall consult with the tribal representative to develop and implement a plan to: (1) evaluate the significance of the find; and (2) mitigate potential impacts to the find should it meet the definition of a historical or unique archaeological resource under CEQA. Mitigation may include, but would not be limited to, recording the tribal cultural resource, data recovery and analysis, and public outreach.

Significance Determination after Mitigation/Compliance: Less than Significant Impact

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒
d. 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?	☐	☐	☐	☒
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Proposed Project construction and operation would not result in impacts to utilities/service systems. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and utilities/service systems.

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒
d. 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?	☐	☐	☐	☒

Proposed Project construction and operation would not result in wildfire impacts. No analysis is required. Refer to Section 3.0, Environmental Factors Potentially Affected, including Determination, for a more detailed discussion about the proposed Project and wildfire.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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.)	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As discussed in Section 4.4, Biological Resources, the proposed Project has the potential to result in impacts to biological resources. Ten special-status animal species, northern California legless lizard, prairie falcon (*Falco mexicanus*), northern harrier (*Circus hudsonius*), western pond turtle (*Emys marmorata*), Monterey hitch (*Lavinia exilicauda harengus*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), Townsend's big-eared bat (*Corynorhinus townsendii*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*) and coast horned lizard (*Phrynosoma blainvillii*), have the potential to occur in the BSAs due to the presence of potentially suitable habitat and known occurrence records in the Project vicinity. The biological resource search identified 14 special-status plant species that could occur within the BSAs based on the presence of potentially suitable habitat and conditions recorded during the field survey. With implementation of **Mitigation Measures BIO-1, BIO-2**, **BIO-3** and **BIO-4,** potential impacts to special-status species (flora and fauna) would be reduced to **less than significant** levels. The proposed Project would directly impact approximately 0.28 acre of delineated aquatic resources by installing a walking trail and marina anchor points within the current high water line level of Lake San Antonio at the Harris Creek Site. As discussed above, the County also proposes to remove the former concrete marina walkway at the Lynch Site, which is also located within the current high water lake shoreline of Lake San Antonio. Due to the removal of the "fill" from the former Lynch marina walkway and passive restoration of native habitat within this area, the proposed Project impacts to jurisdictional resource functions and values would be offset. With implementation of **Mitigation Measures BIO-5, BIO-6,** and **BIO-7,** potential

impacts to jurisdictional areas would be reduced to **less than significant**. Construction of the proposed Project has the potential to adversely impact migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) during the nesting season. With implementation of **Mitigation Measure BIO-8**, potential impacts to migratory birds and raptors would be reduced to **less than significant** levels.

As discussed in Section 4.5, Cultural Resources, the proposed Project is not expected to result in any significant impacts to any examples of the major periods of California history or prehistory. No historic cultural or archaeological resources as defined by CEQA were identified in the study area. However, because the proposed Project includes excavation, it has the potential to impact unknown buried archaeological resources and human remains. Monterey County Code of Ordinances Section 21.66.050, Subsection F, states that if previously unidentified archaeological resources are discovered during the course of construction, that project activities stop within the vicinity of the find and the project planner and a qualified archaeologist be contacted to assess the appropriate course of action. Furthermore, if human remains are encountered during construction activities, the regulatory process outlined in Health and Safety Code (HSC) Section 7050.5 must be followed, which involves coordination with the Native American Heritage Commission and a Native American Most Likely Descendant. Adherence to the HSC and Public Resources Code (PRC) Section 5097.98, which addresses the treatment of Native American human remains, means that the proposed Project would not knowingly disturb human remains but would appropriately address any human remains should any be encountered during Project work. Impacts would be **less than significant,** with compliance with Monterey County Code of Ordinances Section 21.66.050, and HSC Section 7050.5, and no mitigation measures are required.

With implementation of **Mitigation Measures BIO-1** through **BIO-8** and compliance with Monterey County Code of Ordinances Section 21.66.050, Subsection D.1.a and HSC Section 7050.5, the Project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or a wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Impacts would be **less than significant with mitigation incorporated.**

Significance Determination: Potentially Significant Impact.

Mitigation and/or Compliance Measures: Implementation of **Mitigation Measures BIO-1** through **BIO-8** and compliance with Monterey County Code of Ordinances Section 21.66.050, and HSC Section 7050.5.

Significance Determination After Mitigation: Less than Significant with Mitigation Incorporated.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)?

Section 15065(a)(3) of the *State CEQA Guidelines* states that a project's cumulative impacts are the possible environmental effects that may be cumulatively considerable when considered with other reasonable foreseeable projects. Cumulatively considerable impacts occur when the incremental effects of a particular project or program are significant when viewed in connection with the effects of other past, current, or reasonably foreseeable future projects. Section 15355 of the *State CEQA Guidelines* defines a cumulative impact as an impact which is created as a result of the combination of the project evaluated in the CEQA document together with other projects causing related impacts. The proposed Project is located in the vicinity of the Lake San Antonio Recreation Area North Shore Amphitheater Project that would take place on the north shore of Lake San Antonio. A CEQA Categorical Exemption has been prepared for this specific project and identified no project-level or cumulative impacts associated with implementation of the Amphitheater Project. As discussed above, environmental impacts associated with the proposed Project can be reduced to less than significant through project-specific mitigation or compliance measures. The impacts relevant to the proposed Project are localized and confined to the immediate Project area. Given that the potential Project-related impacts would be **less than significant** and limited and there is one future project scheduled for development within the Project area whose impacts to the environment have also been determined to be **less than significant**, implementation of the proposed Project would not result in impacts that are cumulatively considerable when evaluated with the impacts of other current projects, or the effects of probable future projects. No mitigation is required.

Significance Determination: Less than Significant Impact.

Mitigation and/or Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed Project includes removal of a walkway structure and fuel infrastructure at the Lynch Site, removal of the decommissioned marina in Lake San Antonio south of the Harris Creek Site, and installation of a new fuel tank, fuel infrastructure, walkway, and marina at the Harris Creek Site. As demonstrated throughout this environmental document, impacts associated with the proposed Project including those that may have a direct or indirect adverse effect on humans (i.e., air quality and greenhouse gas emissions) can be reduced to **less than significant** through project-specific mitigation or compliance measures. The proposed Project would not result in environmental effects which would cause a substantial direct or indirect adverse effect on human beings.

Significance Determination: Less than Significant Impact.

Mitigation/Compliance Measures: No mitigation is required.

Significance Determination After Mitigation: Less than Significant Impact.

5.0 REFERENCES

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APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS MODELS

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lake San Antonio South Shore Marina Project

Monterey Bay Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.20	1000sqft	0.10	4,200.00	0
Convenience Market with Gas Pumps	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The proposed project would include a 2,700 square foot walkway, 1,500 square foot slips, and 2,000 square foot retail store and fuel infrastructure on the dock.

Construction Phase - Construction of the proposed Project would take approximately 18 months and would occur in a single phase, expected to commence in January 2023 and be completed by January 2025, which was included in CalEEMod.

Demolition - The proposed project would include the demolition of approximately 5,700 square feet of wood structure and 2,000 square feet of metal sheeting and beams.

Vehicle Trips - The proposed project would not generate new vehicle trips.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	180.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	PhaseEndDate	6/21/2023	7/5/2024
tblConstructionPhase	PhaseEndDate	6/7/2023	6/28/2024
tblConstructionPhase	PhaseEndDate	1/13/2023	9/8/2023
tblConstructionPhase	PhaseEndDate	1/16/2023	10/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2023	7/1/2024
tblConstructionPhase	PhaseStartDate	1/19/2023	10/23/2023
tblConstructionPhase	PhaseStartDate	1/14/2023	9/11/2023
tblGrading	AcresOfGrading	15.00	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	624.20	0.00
tblVehicleTrips	SU_TR	624.20	0.00
tblVehicleTrips	WD_TR	624.20	0.00

2.0 Emissions Summary

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0865	0.7808	0.9439	1.6400e-003	0.0173	0.0369	0.0542	4.1100e-003	0.0349	0.0390	0.0000	143.6800	143.6800	0.0296	5.3000e-004	144.5778
2024	0.0545	0.3948	0.4697	7.8000e-004	2.0000e-003	0.0185	0.0205	5.4000e-004	0.0171	0.0176	0.0000	68.2648	68.2648	0.0212	2.1000e-004	68.8549
Maximum	**0.0865**	**0.7808**	**0.9439**	**1.6400e-003**	**0.0173**	**0.0369**	**0.0542**	**4.1100e-003**	**0.0349**	**0.0390**	**0.0000**	**143.6800**	**143.6800**	**0.0296**	**5.3000e-004**	**144.5778**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0645	1.3373	1.0436	1.6400e-003	0.0173	0.0495	0.0668	4.1100e-003	0.0495	0.0536	0.0000	143.6798	143.6798	0.0296	5.3000e-004	144.5776
2024	0.0463	0.7049	0.5279	7.8000e-004	2.0000e-003	0.0253	0.0273	5.4000e-004	0.0253	0.0259	0.0000	68.2647	68.2647	0.0212	2.1000e-004	68.8548
Maximum	**0.0645**	**1.3373**	**1.0436**	**1.6400e-003**	**0.0173**	**0.0495**	**0.0668**	**4.1100e-003**	**0.0495**	**0.0536**	**0.0000**	**143.6798**	**143.6798**	**0.0296**	**5.3000e-004**	**144.5776**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**21.48**	**-73.72**	**-11.17**	**0.00**	**0.00**	**-35.00**	**-25.96**	**0.00**	**-44.05**	**-40.43**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	0.2102	0.3525
2	**4-2-2023**	**7-1-2023**	0.2121	0.3560
3	**7-2-2023**	**10-1-2023**	0.2116	0.3372
4	**10-2-2023**	**1-1-2024**	0.2262	0.3459
5	**1-2-2024**	**4-1-2024**	0.2156	0.3652
6	**4-2-2024**	**7-1-2024**	0.2109	0.3560
7	**7-2-2024**	**9-30-2024**	0.0104	0.0120
		Highest	0.2262	0.3652

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5700e-003	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	2.1724	2.1724	3.2000e-004	4.0000e-005	2.1929
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2200	0.0000	1.2200	0.0721	0.0000	3.0224
Water						0.0000	0.0000		0.0000	0.0000	0.0470	0.1036	0.1506	4.8400e-003	1.2000e-004	0.3063
Total	**9.6000e-003**	**2.3000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**1.2670**	**2.2761**	**3.5431**	**0.0773**	**1.6000e-004**	**5.5217**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5700e-003	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	2.1724	2.1724	3.2000e-004	4.0000e-005	2.1929
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2200	0.0000	1.2200	0.0721	0.0000	3.0224
Water						0.0000	0.0000		0.0000	0.0000	0.0470	0.1036	0.1506	4.8400e-003	1.2000e-004	0.3063
Total	**9.6000e-003**	**2.3000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**1.2670**	**2.2761**	**3.5431**	**0.0773**	**1.6000e-004**	**5.5217**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	9/8/2023	5	180	
2	Site Preparation	Site Preparation	9/11/2023	10/20/2023	5	30	
3	Building Construction	Building Construction	10/23/2023	6/28/2024	5	180	

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4	Architectural Coating	Architectural Coating	7/1/2024	7/5/2024	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,000; Non-Residential Outdoor: 1,000; Striped Parking Area: 252 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	35.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8600e-003	0.0000	3.8600e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0582	0.5201	0.6653	1.0800e-003		0.0254	0.0254		0.0243	0.0243	0.0000	93.7634	93.7634	0.0171	0.0000	94.1899
Total	**0.0582**	**0.5201**	**0.6653**	**1.0800e-003**	**3.8600e-003**	**0.0254**	**0.0293**	**5.8000e-004**	**0.0243**	**0.0249**	**0.0000**	**93.7634**	**93.7634**	**0.0171**	**0.0000**	**94.1899**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.5500e-003	5.3000e-004	1.0000e-005	3.0000e-004	2.0000e-005	3.2000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0230	1.0230	1.0000e-005	1.6000e-004	1.0713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-003	3.2100e-003	0.0363	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003	0.0000	9.2753	9.2753	2.6000e-004	2.6000e-004	9.3603
Total	**3.9400e-003**	**5.7600e-003**	**0.0368**	**1.1000e-004**	**0.0114**	**9.0000e-005**	**0.0115**	**3.0400e-003**	**8.0000e-005**	**3.1200e-003**	**0.0000**	**10.2983**	**10.2983**	**2.7000e-004**	**4.2000e-004**	**10.4316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8600e-003	0.0000	3.8600e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.9331	0.7144	1.0800e-003		0.0362	0.0362		0.0362	0.0362	0.0000	93.7633	93.7633	0.0171	0.0000	94.1898
Total	**0.0436**	**0.9331**	**0.7144**	**1.0800e-003**	**3.8600e-003**	**0.0362**	**0.0400**	**5.8000e-004**	**0.0362**	**0.0367**	**0.0000**	**93.7633**	**93.7633**	**0.0171**	**0.0000**	**94.1898**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.5500e-003	5.3000e-004	1.0000e-005	3.0000e-004	2.0000e-005	3.2000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0230	1.0230	1.0000e-005	1.6000e-004	1.0713
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-003	3.2100e-003	0.0363	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003	0.0000	9.2753	9.2753	2.6000e-004	2.6000e-004	9.3603
Total	**3.9400e-003**	**5.7600e-003**	**0.0368**	**1.1000e-004**	**0.0114**	**9.0000e-005**	**0.0115**	**3.0400e-003**	**8.0000e-005**	**3.1200e-003**	**0.0000**	**10.2983**	**10.2983**	**2.7000e-004**	**4.2000e-004**	**10.4316**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0200e-003	0.0928	0.0589	1.5000e-004		3.4000e-003	3.4000e-003		3.1300e-003	3.1300e-003	0.0000	12.8244	12.8244	4.1500e-003	0.0000	12.9281
Total	**8.0200e-003**	**0.0928**	**0.0589**	**1.5000e-004**	**2.7000e-004**	**3.4000e-003**	**3.6700e-003**	**3.0000e-005**	**3.1300e-003**	**3.1600e-003**	**0.0000**	**12.8244**	**12.8244**	**4.1500e-003**	**0.0000**	**12.9281**

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3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.7000e-004	3.0200e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7729	0.7729	2.0000e-005	2.0000e-005	0.7800
Total	**3.2000e-004**	**2.7000e-004**	**3.0200e-003**	**1.0000e-005**	**9.3000e-004**	**1.0000e-005**	**9.3000e-004**	**2.5000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**0.7729**	**0.7729**	**2.0000e-005**	**2.0000e-005**	**0.7800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.1293	0.0879	1.5000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	12.8244	12.8244	4.1500e-003	0.0000	12.9281
Total	**4.6200e-003**	**0.1293**	**0.0879**	**1.5000e-004**	**2.7000e-004**	**3.6100e-003**	**3.8800e-003**	**3.0000e-005**	**3.6100e-003**	**3.6400e-003**	**0.0000**	**12.8244**	**12.8244**	**4.1500e-003**	**0.0000**	**12.9281**

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3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.7000e-004	3.0200e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7729	0.7729	2.0000e-005	2.0000e-005	0.7800
Total	**3.2000e-004**	**2.7000e-004**	**3.0200e-003**	**1.0000e-005**	**9.3000e-004**	**1.0000e-005**	**9.3000e-004**	**2.5000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**0.7729**	**0.7729**	**2.0000e-005**	**2.0000e-005**	**0.7800**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0158	0.1605	0.1774	2.9000e-004		8.0100e-003	8.0100e-003		7.3700e-003	7.3700e-003	0.0000	25.0521	25.0521	8.1000e-003	0.0000	25.2547
Total	**0.0158**	**0.1605**	**0.1774**	**2.9000e-004**		**8.0100e-003**	**8.0100e-003**		**7.3700e-003**	**7.3700e-003**	**0.0000**	**25.0521**	**25.0521**	**8.1000e-003**	**0.0000**	**25.2547**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.1800e-003	3.9000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4535	0.4535	0.0000	7.0000e-005	0.4734
Worker	2.2000e-004	1.8000e-004	2.0200e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5153	0.5153	1.0000e-005	1.0000e-005	0.5200
Total	**2.5000e-004**	**1.3600e-003**	**2.4100e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.8000e-004**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.9688**	**0.9688**	**1.0000e-005**	**8.0000e-005**	**0.9934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0118	0.2676	0.1991	2.9000e-004		9.6400e-003	9.6400e-003		9.6400e-003	9.6400e-003	0.0000	25.0521	25.0521	8.1000e-003	0.0000	25.2546
Total	**0.0118**	**0.2676**	**0.1991**	**2.9000e-004**		**9.6400e-003**	**9.6400e-003**		**9.6400e-003**	**9.6400e-003**	**0.0000**	**25.0521**	**25.0521**	**8.1000e-003**	**0.0000**	**25.2546**

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.1800e-003	3.9000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4535	0.4535	0.0000	7.0000e-005	0.4734
Worker	2.2000e-004	1.8000e-004	2.0200e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5153	0.5153	1.0000e-005	1.0000e-005	0.5200
Total	**2.5000e-004**	**1.3600e-003**	**2.4100e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.8000e-004**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.9688**	**0.9688**	**1.0000e-005**	**8.0000e-005**	**0.9934**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0387	0.3883	0.4594	7.4000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	65.1576	65.1576	0.0211	0.0000	65.6844
Total	**0.0387**	**0.3883**	**0.4594**	**7.4000e-004**		**0.0184**	**0.0184**		**0.0169**	**0.0169**	**0.0000**	**65.1576**	**65.1576**	**0.0211**	**0.0000**	**65.6844**

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3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	3.0400e-003	9.7000e-004	1.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1607	1.1607	1.0000e-005	1.7000e-004	1.2118
Worker	5.3000e-004	4.1000e-004	4.8300e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.3082	1.3082	3.0000e-005	4.0000e-005	1.3195
Total	**6.1000e-004**	**3.4500e-003**	**5.8000e-003**	**2.0000e-005**	**2.0000e-003**	**3.0000e-005**	**2.0300e-003**	**5.4000e-004**	**3.0000e-005**	**5.7000e-004**	**0.0000**	**2.4689**	**2.4689**	**4.0000e-005**	**2.1000e-004**	**2.5313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0306	0.6956	0.5176	7.4000e-004		0.0251	0.0251		0.0251	0.0251	0.0000	65.1575	65.1575	0.0211	0.0000	65.6843
Total	**0.0306**	**0.6956**	**0.5176**	**7.4000e-004**		**0.0251**	**0.0251**		**0.0251**	**0.0251**	**0.0000**	**65.1575**	**65.1575**	**0.0211**	**0.0000**	**65.6843**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	3.0400e-003	9.7000e-004	1.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1607	1.1607	1.0000e-005	1.7000e-004	1.2118
Worker	5.3000e-004	4.1000e-004	4.8300e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.3082	1.3082	3.0000e-005	4.0000e-005	1.3195
Total	**6.1000e-004**	**3.4500e-003**	**5.8000e-003**	**2.0000e-005**	**2.0000e-003**	**3.0000e-005**	**2.0300e-003**	**5.4000e-004**	**3.0000e-005**	**5.7000e-004**	**0.0000**	**2.4689**	**2.4689**	**4.0000e-005**	**2.1000e-004**	**2.5313**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**0.0152**	**3.0500e-003**	**4.5300e-003**	**1.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

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3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8000e-004	5.8800e-003	4.5800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**0.0151**	**5.8800e-003**	**4.5800e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	14.70	6.60	6.60	0.80	80.20	19.00	14	21	65
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550
Other Non-Asphalt Surfaces	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.9226	1.9226	3.1000e-004	4.0000e-005	1.9417
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.9226	1.9226	3.1000e-004	4.0000e-005	1.9417
NaturalGas Mitigated	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512
NaturalGas Unmitigated	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	4680	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0000e-005**	**2.3000e-004**	**1.9000e-004**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.2497**	**0.2497**	**0.0000**	**0.0000**	**0.2512**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	4680	3.0000e-005	2.3000e-004	1.9000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.2497	0.2497	0.0000	0.0000	0.2512
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0000e-005**	**2.3000e-004**	**1.9000e-004**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.2497**	**0.2497**	**0.0000**	**0.0000**	**0.2512**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	20780	1.9226	3.1000e-004	4.0000e-005	1.9417
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**1.9226**	**3.1000e-004**	**4.0000e-005**	**1.9417**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	20780	1.9226	3.1000e-004	4.0000e-005	1.9417
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**1.9226**	**3.1000e-004**	**4.0000e-005**	**1.9417**

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.5700e-003	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Unmitigated	9.5700e-003	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Total	**9.5700e-003**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0000**	**1.6000e-004**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	8.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Total	**9.5700e-003**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.0000**	**1.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1506	4.8400e-003	1.2000e-004	0.3063
Unmitigated	0.1506	4.8400e-003	1.2000e-004	0.3063

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.148145 / 0.0907986	0.1506	4.8400e-003	1.2000e-004	0.3063
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1506**	**4.8400e-003**	**1.2000e-004**	**0.3063**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.148145 / 0.0907986	0.1506	4.8400e-003	1.2000e-004	0.3063
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.1506**	**4.8400e-003**	**1.2000e-004**	**0.3063**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2200	0.0721	0.0000	3.0224
Unmitigated	1.2200	0.0721	0.0000	3.0224

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	6.01	1.2200	0.0721	0.0000	3.0224
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**1.2200**	**0.0721**	**0.0000**	**3.0224**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	6.01	1.2200	0.0721	0.0000	3.0224
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**1.2200**	**0.0721**	**0.0000**	**3.0224**

9.0 Operational Offroad

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lake San Antonio South Shore Marina Project

Monterey Bay Unified APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.20	1000sqft	0.10	4,200.00	0
Convenience Market with Gas Pumps	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The proposed project would include a 2,700 square foot walkway, 1,500 square foot slips, and 2,000 square foot retail store and fuel infrastructure on the dock.

Construction Phase - Construction of the proposed Project would take approximately 18 months and would occur in a single phase, expected to commence in January 2023 and be completed by January 2025, which was included in CalEEMod.

Demolition - The proposed project would include the demolition of approximately 5,700 square feet of wood structure and 2,000 square feet of metal sheeting and beams.

Vehicle Trips - The proposed project would not generate new vehicle trips.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	180.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	PhaseEndDate	6/21/2023	7/5/2024
tblConstructionPhase	PhaseEndDate	6/7/2023	6/28/2024
tblConstructionPhase	PhaseEndDate	1/13/2023	9/8/2023
tblConstructionPhase	PhaseEndDate	1/16/2023	10/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2023	7/1/2024
tblConstructionPhase	PhaseStartDate	1/19/2023	10/23/2023
tblConstructionPhase	PhaseStartDate	1/14/2023	9/11/2023
tblGrading	AcresOfGrading	15.00	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	624.20	0.00
tblVehicleTrips	SU_TR	624.20	0.00
tblVehicleTrips	WD_TR	624.20	0.00

2.0 Emissions Summary

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.6901	6.4704	7.8308	0.0133	0.1740	0.3207	0.4572	0.0413	0.2951	0.3121	0.0000	1,280.5710	1,280.5710	0.3581	4.9200e-003	1,287.3440
2024	6.0932	6.0245	7.1617	0.0118	0.0317	0.2828	0.3145	8.5300e-003	0.2602	0.2687	0.0000	1,148.0116	1,148.0116	0.3581	3.4300e-003	1,157.9872
Maximum	**6.0932**	**6.4704**	**7.8308**	**0.0133**	**0.1740**	**0.3207**	**0.4572**	**0.0413**	**0.2951**	**0.3121**	**0.0000**	**1,280.5710**	**1,280.5710**	**0.3581**	**4.9200e-003**	**1,287.3440**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.5281	10.7536	8.3762	0.0133	0.1740	0.4027	0.5768	0.0413	0.4027	0.4440	0.0000	1,280.5710	1,280.5710	0.3581	4.9200e-003	1,287.3440
2024	6.0263	10.7524	8.0567	0.0118	0.0317	0.3859	0.4176	8.5300e-003	0.3859	0.3944	0.0000	1,148.0116	1,148.0116	0.3581	3.4300e-003	1,157.9872
Maximum	**6.0263**	**10.7536**	**8.3762**	**0.0133**	**0.1740**	**0.4027**	**0.5768**	**0.0413**	**0.4027**	**0.4440**	**0.0000**	**1,280.5710**	**1,280.5710**	**0.3581**	**4.9200e-003**	**1,287.3440**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	3.37	-72.12	-9.61	0.00	0.00	-30.68	-28.86	0.00	-42.02	-44.35	0.00	0.00	0.00	0.00	0.00	0.00

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Energy	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0526**	**1.2700e-003**	**1.6900e-003**	**1.0000e-005**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**		**1.5098**	**1.5098**	**3.0000e-005**	**3.0000e-005**	**1.5189**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Energy	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0526**	**1.2700e-003**	**1.6900e-003**	**1.0000e-005**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**		**1.5098**	**1.5098**	**3.0000e-005**	**3.0000e-005**	**1.5189**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	9/8/2023	5	180	
2	Site Preparation	Site Preparation	9/11/2023	10/20/2023	5	30	
3	Building Construction	Building Construction	10/23/2023	6/28/2024	5	180	
4	Architectural Coating	Architectural Coating	7/1/2024	7/5/2024	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,000; Non-Residential Outdoor: 1,000; Striped Parking Area: 252 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	35.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0429	0.0000	0.0429	6.5000e-003	0.0000	6.5000e-003			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	**0.6463**	**5.7787**	**7.3926**	**0.0120**	**0.0429**	**0.2821**	**0.3250**	**6.5000e-003**	**0.2698**	**0.2763**		**1,148.4055**	**1,148.4055**	**0.2089**		**1,153.6290**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0000e-004	0.0272	5.8200e-003	1.2000e-004	3.4000e-003	2.5000e-004	3.6500e-003	9.3000e-004	2.4000e-004	1.1700e-003		12.5231	12.5231	1.4000e-004	1.9700e-003	13.1148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0432	0.0313	0.4323	1.1700e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		119.6423	119.6423	3.1100e-003	2.9500e-003	120.6002
Total	**0.0437**	**0.0585**	**0.4381**	**1.2900e-003**	**0.1311**	**1.0300e-003**	**0.1322**	**0.0348**	**9.6000e-004**	**0.0358**		**132.1655**	**132.1655**	**3.2500e-003**	**4.9200e-003**	**133.7150**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0429	0.0000	0.0429	6.5000e-003	0.0000	6.5000e-003			0.0000			0.0000
Off-Road	0.4844	10.3677	7.9381	0.0120		0.4017	0.4017		0.4017	0.4017	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	**0.4844**	**10.3677**	**7.9381**	**0.0120**	**0.0429**	**0.4017**	**0.4446**	**6.5000e-003**	**0.4017**	**0.4082**	**0.0000**	**1,148.4055**	**1,148.4055**	**0.2089**		**1,153.6290**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.0000e-004	0.0272	5.8200e-003	1.2000e-004	3.4000e-003	2.5000e-004	3.6500e-003	9.3000e-004	2.4000e-004	1.1700e-003		12.5231	12.5231	1.4000e-004	1.9700e-003	13.1148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0432	0.0313	0.4323	1.1700e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		119.6423	119.6423	3.1100e-003	2.9500e-003	120.6002
Total	**0.0437**	**0.0585**	**0.4381**	**1.2900e-003**	**0.1311**	**1.0300e-003**	**0.1322**	**0.0348**	**9.6000e-004**	**0.0358**		**132.1655**	**132.1655**	**3.2500e-003**	**4.9200e-003**	**133.7150**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0177	0.0000	0.0177	1.9100e-003	0.0000	1.9100e-003			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.0177**	**0.2266**	**0.2443**	**1.9100e-003**	**0.2084**	**0.2104**		**942.4317**	**942.4317**	**0.3048**		**950.0517**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0216	0.0156	0.2162	5.8000e-004	0.0639	3.9000e-004	0.0643	0.0169	3.6000e-004	0.0173		59.8212	59.8212	1.5500e-003	1.4800e-003	60.3001
Total	**0.0216**	**0.0156**	**0.2162**	**5.8000e-004**	**0.0639**	**3.9000e-004**	**0.0643**	**0.0169**	**3.6000e-004**	**0.0173**		**59.8212**	**59.8212**	**1.5500e-003**	**1.4800e-003**	**60.3001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0177	0.0000	0.0177	1.9100e-003	0.0000	1.9100e-003			0.0000			0.0000
Off-Road	0.3079	8.6185	5.8579	9.7300e-003		0.2405	0.2405		0.2405	0.2405	0.0000	942.4317	942.4317	0.3048		950.0517
Total	**0.3079**	**8.6185**	**5.8579**	**9.7300e-003**	**0.0177**	**0.2405**	**0.2582**	**1.9100e-003**	**0.2405**	**0.2424**	**0.0000**	**942.4317**	**942.4317**	**0.3048**		**950.0517**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0216	0.0156	0.2162	5.8000e-004	0.0639	3.9000e-004	0.0643	0.0169	3.6000e-004	0.0173		59.8212	59.8212	1.5500e-003	1.4800e-003	60.3001
Total	**0.0216**	**0.0156**	**0.2162**	**5.8000e-004**	**0.0639**	**3.9000e-004**	**0.0643**	**0.0169**	**3.6000e-004**	**0.0173**		**59.8212**	**59.8212**	**1.5500e-003**	**1.4800e-003**	**60.3001**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0455	0.0153	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0500e-003		19.9771	19.9771	1.8000e-004	2.9300e-003	20.8558
Worker	8.6500e-003	6.2500e-003	0.0865	2.3000e-004	0.0256	1.6000e-004	0.0257	6.7700e-003	1.4000e-004	6.9200e-003		23.9285	23.9285	6.2000e-004	5.9000e-004	24.1200
Total	**0.0100**	**0.0518**	**0.1018**	**4.2000e-004**	**0.0317**	**4.5000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9700e-003**		**43.9056**	**43.9056**	**8.0000e-004**	**3.5200e-003**	**44.9759**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4704	10.7018	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.4704**	**10.7018**	**7.9624**	**0.0114**		**0.3855**	**0.3855**		**0.3855**	**0.3855**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0455	0.0153	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0500e-003		19.9771	19.9771	1.8000e-004	2.9300e-003	20.8558
Worker	8.6500e-003	6.2500e-003	0.0865	2.3000e-004	0.0256	1.6000e-004	0.0257	6.7700e-003	1.4000e-004	6.9200e-003		23.9285	23.9285	6.2000e-004	5.9000e-004	24.1200
Total	**0.0100**	**0.0518**	**0.1018**	**4.2000e-004**	**0.0317**	**4.5000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9700e-003**		**43.9056**	**43.9056**	**8.0000e-004**	**3.5200e-003**	**44.9759**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0450	0.0148	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0400e-003		19.6672	19.6672	1.7000e-004	2.8900e-003	20.5325
Worker	8.0600e-003	5.5200e-003	0.0795	2.3000e-004	0.0256	1.5000e-004	0.0257	6.7700e-003	1.4000e-004	6.9100e-003		23.3610	23.3610	5.6000e-004	5.4000e-004	23.5370
Total	**9.3800e-003**	**0.0505**	**0.0942**	**4.2000e-004**	**0.0317**	**4.4000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9500e-003**		**43.0282**	**43.0282**	**7.3000e-004**	**3.4300e-003**	**44.0695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4704	10.7018	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.4704**	**10.7018**	**7.9624**	**0.0114**		**0.3855**	**0.3855**		**0.3855**	**0.3855**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0450	0.0148	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0400e-003		19.6672	19.6672	1.7000e-004	2.8900e-003	20.5325
Worker	8.0600e-003	5.5200e-003	0.0795	2.3000e-004	0.0256	1.5000e-004	0.0257	6.7700e-003	1.4000e-004	6.9100e-003		23.3610	23.3610	5.6000e-004	5.4000e-004	23.5370
Total	**9.3800e-003**	**0.0505**	**0.0942**	**4.2000e-004**	**0.0317**	**4.4000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9500e-003**		**43.0282**	**43.0282**	**7.3000e-004**	**3.4300e-003**	**44.0695**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**6.0932**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**6.0263**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	14.70	6.60	6.60	0.80	80.20	19.00	14	21	65
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550
Other Non-Asphalt Surfaces	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
NaturalGas Unmitigated	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	12.8219	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4000e-004**	**1.2600e-003**	**1.0600e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**1.5085**	**1.5085**	**3.0000e-005**	**3.0000e-005**	**1.5174**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0128219	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4000e-004**	**1.2600e-003**	**1.0600e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**1.5085**	**1.5085**	**3.0000e-005**	**3.0000e-005**	**1.5174**

6.0 Area Detail

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Unmitigated	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0443					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Total	**0.0525**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.3600e-003**	**1.3600e-003**	**0.0000**		**1.4500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0443					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Total	**0.0525**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.3600e-003**	**1.3600e-003**	**0.0000**		**1.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lake San Antonio South Shore Marina Project

Monterey Bay Unified APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.20	1000sqft	0.10	4,200.00	0
Convenience Market with Gas Pumps	2.00	1000sqft	0.05	2,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The proposed project would include a 2,700 square foot walkway, 1,500 square foot slips, and 2,000 square foot retail store and fuel infrastructure on the dock.

Construction Phase - Construction of the proposed Project would take approximately 18 months and would occur in a single phase, expected to commence in January 2023 and be completed by January 2025, which was included in CalEEMod.

Demolition - The proposed project would include the demolition of approximately 5,700 square feet of wood structure and 2,000 square feet of metal sheeting and beams.

Vehicle Trips - The proposed project would not generate new vehicle trips.

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	180.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	PhaseEndDate	6/21/2023	7/5/2024
tblConstructionPhase	PhaseEndDate	6/7/2023	6/28/2024
tblConstructionPhase	PhaseEndDate	1/13/2023	9/8/2023
tblConstructionPhase	PhaseEndDate	1/16/2023	10/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2023	7/1/2024
tblConstructionPhase	PhaseStartDate	1/19/2023	10/23/2023
tblConstructionPhase	PhaseStartDate	1/14/2023	9/11/2023
tblGrading	AcresOfGrading	15.00	0.50
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	624.20	0.00
tblVehicleTrips	SU_TR	624.20	0.00
tblVehicleTrips	WD_TR	624.20	0.00

2.0 Emissions Summary

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.6944	6.4747	7.8134	0.0132	0.1740	0.3207	0.4572	0.0413	0.2951	0.3121	0.0000	1,274.1078	1,274.1078	0.3581	5.4200e-003	1,281.0314
2024	6.0932	6.0285	7.1592	0.0118	0.0317	0.2828	0.3145	8.5300e-003	0.2602	0.2687	0.0000	1,146.7897	1,146.7897	0.3581	3.5300e-003	1,156.7957
Maximum	**6.0932**	**6.4747**	**7.8134**	**0.0132**	**0.1740**	**0.3207**	**0.4572**	**0.0413**	**0.2951**	**0.3121**	**0.0000**	**1,274.1078**	**1,274.1078**	**0.3581**	**5.4200e-003**	**1,281.0314**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	0.5324	10.7579	8.3589	0.0132	0.1740	0.4027	0.5768	0.0413	0.4027	0.4440	0.0000	1,274.1078	1,274.1078	0.3581	5.4200e-003	1,281.0314
2024	6.0263	10.7564	8.0541	0.0118	0.0317	0.3859	0.4176	8.5300e-003	0.3859	0.3944	0.0000	1,146.7897	1,146.7897	0.3581	3.5300e-003	1,156.7957
Maximum	**6.0263**	**10.7579**	**8.3589**	**0.0132**	**0.1740**	**0.4027**	**0.5768**	**0.0413**	**0.4027**	**0.4440**	**0.0000**	**1,274.1078**	**1,274.1078**	**0.3581**	**5.4200e-003**	**1,281.0314**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	3.37	-72.07	-9.62	0.00	0.00	-30.68	-28.86	0.00	-42.02	-44.35	0.00	0.00	0.00	0.00	0.00	0.00

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Energy	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0526**	**1.2700e-003**	**1.6900e-003**	**1.0000e-005**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**		**1.5098**	**1.5098**	**3.0000e-005**	**3.0000e-005**	**1.5189**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Energy	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0526**	**1.2700e-003**	**1.6900e-003**	**1.0000e-005**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**1.0000e-004**		**1.5098**	**1.5098**	**3.0000e-005**	**3.0000e-005**	**1.5189**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	9/8/2023	5	180	
2	Site Preparation	Site Preparation	9/11/2023	10/20/2023	5	30	
3	Building Construction	Building Construction	10/23/2023	6/28/2024	5	180	
4	Architectural Coating	Architectural Coating	7/1/2024	7/5/2024	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,000; Non-Residential Outdoor: 1,000; Striped Parking Area: 252 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	35.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0429	0.0000	0.0429	6.5000e-003	0.0000	6.5000e-003			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	**0.6463**	**5.7787**	**7.3926**	**0.0120**	**0.0429**	**0.2821**	**0.3250**	**6.5000e-003**	**0.2698**	**0.2763**		**1,148.4055**	**1,148.4055**	**0.2089**		**1,153.6290**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.6000e-004	0.0288	5.9200e-003	1.2000e-004	3.4000e-003	2.5000e-004	3.6500e-003	9.3000e-004	2.4000e-004	1.1700e-003		12.5388	12.5388	1.4000e-004	1.9800e-003	13.1312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0476	0.0392	0.4149	1.1100e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		113.1635	113.1635	3.3400e-003	3.4400e-003	114.2712
Total	**0.0480**	**0.0680**	**0.4208**	**1.2300e-003**	**0.1311**	**1.0300e-003**	**0.1322**	**0.0348**	**9.6000e-004**	**0.0358**		**125.7023**	**125.7023**	**3.4800e-003**	**5.4200e-003**	**127.4025**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0429	0.0000	0.0429	6.5000e-003	0.0000	6.5000e-003			0.0000			0.0000
Off-Road	0.4844	10.3677	7.9381	0.0120		0.4017	0.4017		0.4017	0.4017	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	**0.4844**	**10.3677**	**7.9381**	**0.0120**	**0.0429**	**0.4017**	**0.4446**	**6.5000e-003**	**0.4017**	**0.4082**	**0.0000**	**1,148.4055**	**1,148.4055**	**0.2089**		**1,153.6290**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.6000e-004	0.0288	5.9200e-003	1.2000e-004	3.4000e-003	2.5000e-004	3.6500e-003	9.3000e-004	2.4000e-004	1.1700e-003		12.5388	12.5388	1.4000e-004	1.9800e-003	13.1312
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0476	0.0392	0.4149	1.1100e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		113.1635	113.1635	3.3400e-003	3.4400e-003	114.2712
Total	**0.0480**	**0.0680**	**0.4208**	**1.2300e-003**	**0.1311**	**1.0300e-003**	**0.1322**	**0.0348**	**9.6000e-004**	**0.0358**		**125.7023**	**125.7023**	**3.4800e-003**	**5.4200e-003**	**127.4025**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0177	0.0000	0.0177	1.9100e-003	0.0000	1.9100e-003			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.0177**	**0.2266**	**0.2443**	**1.9100e-003**	**0.2084**	**0.2104**		**942.4317**	**942.4317**	**0.3048**		**950.0517**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0196	0.2074	5.5000e-004	0.0639	3.9000e-004	0.0643	0.0169	3.6000e-004	0.0173		56.5817	56.5817	1.6700e-003	1.7200e-003	57.1356
Total	**0.0238**	**0.0196**	**0.2074**	**5.5000e-004**	**0.0639**	**3.9000e-004**	**0.0643**	**0.0169**	**3.6000e-004**	**0.0173**		**56.5817**	**56.5817**	**1.6700e-003**	**1.7200e-003**	**57.1356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0177	0.0000	0.0177	1.9100e-003	0.0000	1.9100e-003			0.0000			0.0000
Off-Road	0.3079	8.6185	5.8579	9.7300e-003		0.2405	0.2405		0.2405	0.2405	0.0000	942.4317	942.4317	0.3048		950.0517
Total	**0.3079**	**8.6185**	**5.8579**	**9.7300e-003**	**0.0177**	**0.2405**	**0.2582**	**1.9100e-003**	**0.2405**	**0.2424**	**0.0000**	**942.4317**	**942.4317**	**0.3048**		**950.0517**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0196	0.2074	5.5000e-004	0.0639	3.9000e-004	0.0643	0.0169	3.6000e-004	0.0173		56.5817	56.5817	1.6700e-003	1.7200e-003	57.1356
Total	**0.0238**	**0.0196**	**0.2074**	**5.5000e-004**	**0.0639**	**3.9000e-004**	**0.0643**	**0.0169**	**3.6000e-004**	**0.0173**		**56.5817**	**56.5817**	**1.6700e-003**	**1.7200e-003**	**57.1356**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3300e-003	0.0482	0.0158	1.9000e-004	6.1300e-003	3.0000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0500e-003		20.0169	20.0169	1.7000e-004	2.9400e-003	20.8986
Worker	9.5100e-003	7.8300e-003	0.0830	2.2000e-004	0.0256	1.6000e-004	0.0257	6.7700e-003	1.4000e-004	6.9200e-003		22.6327	22.6327	6.7000e-004	6.9000e-004	22.8542
Total	**0.0108**	**0.0561**	**0.0988**	**4.1000e-004**	**0.0317**	**4.6000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9700e-003**		**42.6496**	**42.6496**	**8.4000e-004**	**3.6300e-003**	**43.7529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4704	10.7018	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.4704**	**10.7018**	**7.9624**	**0.0114**		**0.3855**	**0.3855**		**0.3855**	**0.3855**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3300e-003	0.0482	0.0158	1.9000e-004	6.1300e-003	3.0000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0500e-003		20.0169	20.0169	1.7000e-004	2.9400e-003	20.8986
Worker	9.5100e-003	7.8300e-003	0.0830	2.2000e-004	0.0256	1.6000e-004	0.0257	6.7700e-003	1.4000e-004	6.9200e-003		22.6327	22.6327	6.7000e-004	6.9000e-004	22.8542
Total	**0.0108**	**0.0561**	**0.0988**	**4.1000e-004**	**0.0317**	**4.6000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9700e-003**		**42.6496**	**42.6496**	**8.4000e-004**	**3.6300e-003**	**43.7529**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0477	0.0153	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0400e-003		19.7071	19.7071	1.7000e-004	2.9000e-003	20.5754
Worker	8.9000e-003	6.9100e-003	0.0764	2.1000e-004	0.0256	1.5000e-004	0.0257	6.7700e-003	1.4000e-004	6.9100e-003		22.0991	22.0991	6.0000e-004	6.3000e-004	22.3027
Total	**0.0102**	**0.0546**	**0.0917**	**4.0000e-004**	**0.0317**	**4.4000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9500e-003**		**41.8063**	**41.8063**	**7.7000e-004**	**3.5300e-003**	**42.8780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4704	10.7018	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.4704**	**10.7018**	**7.9624**	**0.0114**		**0.3855**	**0.3855**		**0.3855**	**0.3855**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0477	0.0153	1.9000e-004	6.1300e-003	2.9000e-004	6.4200e-003	1.7600e-003	2.8000e-004	2.0400e-003		19.7071	19.7071	1.7000e-004	2.9000e-003	20.5754
Worker	8.9000e-003	6.9100e-003	0.0764	2.1000e-004	0.0256	1.5000e-004	0.0257	6.7700e-003	1.4000e-004	6.9100e-003		22.0991	22.0991	6.0000e-004	6.3000e-004	22.3027
Total	**0.0102**	**0.0546**	**0.0917**	**4.0000e-004**	**0.0317**	**4.4000e-004**	**0.0321**	**8.5300e-003**	**4.2000e-004**	**8.9500e-003**		**41.8063**	**41.8063**	**7.7000e-004**	**3.5300e-003**	**42.8780**

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**6.0932**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.9124					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**6.0263**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market with Gas	14.70	6.60	6.60	0.80	80.20	19.00	14	21	65
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550
Other Non-Asphalt Surfaces	0.517882	0.052795	0.193633	0.146997	0.027981	0.006802	0.010707	0.009580	0.001188	0.000578	0.027032	0.001276	0.003550

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
NaturalGas Unmitigated	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	12.8219	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4000e-004**	**1.2600e-003**	**1.0600e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**1.5085**	**1.5085**	**3.0000e-005**	**3.0000e-005**	**1.5174**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0128219	1.4000e-004	1.2600e-003	1.0600e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		1.5085	1.5085	3.0000e-005	3.0000e-005	1.5174
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4000e-004**	**1.2600e-003**	**1.0600e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**1.5085**	**1.5085**	**3.0000e-005**	**3.0000e-005**	**1.5174**

6.0 Area Detail

Lake San Antonio South Shore Marina Project - Monterey Bay Unified APCD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Unmitigated	0.0524	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0443					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Total	**0.0525**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.3600e-003**	**1.3600e-003**	**0.0000**		**1.4500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.1000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0443					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3600e-003	1.3600e-003	0.0000		1.4500e-003
Total	**0.0525**	**1.0000e-005**	**6.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.3600e-003**	**1.3600e-003**	**0.0000**		**1.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

BIOLOGICAL RESOURCES ASSESSMENT

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

January 14, 2022

Nathan Merkle, Administrative Operations Manager
County of Monterey Public Works, Facilities, & Parks
1441 Schilling Place, South 2nd Floor
Salinas, California 93901

Subject: Biological Resources Assessment for the Proposed South Shore Marina Project located at Lake San Antonio, Monterey County, California

Dear Mr. Merkle,

The purpose of this Biological Resources Technical Memorandum is to describe and document potential impacts to biological resources associated with the proposed South Shore Marina Project (project) at Lake San Antonio, Monterey County, California (refer to Figure 1; all figures provided in Attachment A). This technical information is provided for project review under the California Environmental Quality Act (CEQA), the federal Endangered Species Act, and other pertinent environmental regulations. This document provides a biological resources impact analysis that reflects the current environmental setting, project design, and regulatory context.

PROJECT DESCRIPTION AND SETTING

The project site is located within the Lake San Antonio Recreation Area, approximately 30 miles north of Paso Robles in Monterey County along Lake San Antonio. Lake San Antonio is an approximately 16-mile lake with approximately 100 miles of shoreline. The Lake San Antonio reservoir and dam are controlled by the Monterey County Water Resources Agency, whereas the Lake San Antonio Recreation Area is managed by the Monterey County Department of Public Works, Facilities, & Parks. The Lake San Antonio Recreation Area is geographically divided into two facilities – the North Shore and South Shore, which currently support a variety of recreation activities, including camping, boating, fishing, waterskiing, swimming, hiking, mountain biking, horseback riding, and picnicking. Regional vehicular access to the project site is provided by United States Route 101 (US-101), which is located approximately 8.0 miles (mi) east of the project site. Figure 1 shows the project location.

The South Marina project site is comprised of three sites located within the Lake San Antonio Recreation Area (Figure 2). The first project site is located on the western side of Lake San Antonio at the former Lynch Marina, hereinafter referred to as the “Lynch Project Site” (Figure 3). The second project site is located south of the Lynch Project site at Harris Creek, hereinafter referred to as the “Harris Creek Project Site” (Figure 4). The last project site is the decommissioned marina, which is currently moored within Lake San Antonio near the Harris Creek Project Site, hereinafter referred to as the “Former Marina Project Site” (Figure 5). For the purposes of this assessment, Lynch, Harris Creek and the decommissioned marina are analyzed as they would be disturbed/developed during proposed construction activities.

Proposed Project

The Monterey County Department of Public Works, Facilities, & Parks (County) proposes to replace the former marina with a new marina and fuel system. The South Shore Marina Project would require demolition and off-haul of the former marina, removal of the fuel tank and line from the Lynch Project Site and installation of a new marina at the Harris Creek Project Site, including a new fuel tank and fuel line at this location. These project elements are further described below and shown in Figures 3 through 5.

Proposed Improvements

Demolition and Removal of the Former Marina

The former marina facility, which includes approximately 900 linear feet of dock with approximately 100 slips, would be removed. The former marina would be towed to the Harris Creek Project Site and hauled out. Materials would be separated based on the type of material. Items suitable for recycling would be recycled. All other materials would be transported to a nearby landfill.

Removal of Existing Fuel Infrastructure

The existing fuel tank and line located at the Lynch Project Site would either be removed and relocated to the Harris Creek Project Site to serve the new marina or removed entirely and a new line installed at the Harris Creek Project Site. In addition, an existing concrete walkway would either be abandoned in place or removed and the area restored with native vegetation.

Installation of New Marina

As part of the proposed project, the County would establish a new marina and fuel system at Harris Creek. The proposed 50-slip marina would enable campers to moor their boats overnight and would provide an on-water fueling source for boaters at Lake San Antonio. The proposed marina would also include a small retail store for non-alcoholic drinks, fishing tackle, watersports equipment and boat supplies. New water and electrical lines would be installed to serve the new retail store. A landscaped walkway would be constructed along the existing boat launch ramp to provide pedestrian access between the parking area and the marina gangway.

The 50-slip marina would be launched from the existing boat ramp and anchored to the shore/lake bed. Six onshore and sixteen offshore anchor points, approximately 2 feet (ft) long, 4 ft wide and 5 ft deep, would be installed upslope from the lakeshore and within the lakebed.

The project sites are located in Range 9 and 10 East of Township 24 South on the 7.5-minute series United States Geological Survey (USGS) *Tierra Redonda Mountain, California* quadrangle. The "project sites" discussed in this memorandum refers to the direct project disturbance limits. The Biological Study Areas (BSAs) for the project sites includes the direct project disturbance limits plus a buffer of up to 200 which includes all areas where temporary and permanent ground disturbance would occur. A BSA was not established for the former marina project site due to project activities and location.

The BSAs contains disturbed non-native grassland, coyote bush (*Baccharis pilularis*) scrub, blue oak (*Quercus douglasii*) woodland, ruderal, open water, lakeshore, disturbed and developed areas. The

BSAs are subject to regular anthropogenic disturbance associated with existing recreational activities (i.e. boating, camping etc.) Elevations within the BSAs range from approximately 760 to 805 feet above mean sea level. Lake San Antonio and the current high water lake shoreline[1], a water of the United States, are located within the BSAs.

METHODS

Literature Review and Records Search

LSA Biologist Kelly McDonald conducted a literature review and records search on September 20, 2021, to identify the existence and potential for occurrence of sensitive or special-status plant and animal species[2] in the project vicinity. Federal and State lists of sensitive species were also examined. Current electronic database records reviewed included the following:

- **California Natural Diversity Data Base information (CNDDB – RareFind 5)**, which is administered by the California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game. This database covers sensitive plant and animal species, as well as sensitive natural communities that occur in California. Records from nine USGS quadrangles surrounding the project area (*Tierra Redonda Mountain, Williams Hill, Hames Valley, Bradley, Bryson, Wunpost, Lime Mountain, Pebbleston Shut-In and Adelaida*), along with a query of records within a 5-mile radius of the project sites, were obtained from this database to inform the field survey.

- **California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants**, which uses four specific categories or "lists" of sensitive plant species to assist with the conservation of rare or endangered botanical resources. Records from the nine USGS quadrangles surrounding the project areas were obtained from this database to inform the field survey.

1 Current high water lake shoreline is defined as the line on the shore established by the fluctuations of water which are indicated by shelving, vegetation, soil, and/or clear, natural line impressed on the bank. This line is associated with a 10-20 year occurrence whereas the ordinary high water mark is a 2-5 year occurrence.

2 For the purposed of this report, the term "special-status species" refers to those species that are listed or proposed for listing under the California Endangered Species Act (CESA) and/or the Federal Endangered Species Act (FESA), California Fully Protected Species, and California Species of Special Concern. It should be noted that "Species of Special Concern" is an administrative designation made by the CDFW and carries no formal legal protection status. However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

- **United States Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) Online System**, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all designated critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project. An IPaC Trust Resource Report (USFWS 2021a) was generated for the project sites.

- **Designated and Proposed USFWS Critical Habitat Polygons** were reviewed to determine whether critical habitat has been designated or proposed within or in the vicinity of the project site (USFWS 2021b).

- **The USFWS National Wetlands Inventory** was reviewed to determine whether any wetlands or surface waters of the United States have been previously-identified in the survey area (USFWS 2021c).

- **eBird:** eBird is a real-time, online checklist program launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society. It provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales. eBird occurrence records within the project sites and a 5 mile radius around the project sites were reviewed in September 2021 (eBird 2021).

In addition to the databases listed above, historic and current aerial imagery, and local land use policies related to biological resources were reviewed.

Field Survey

LSA Biologist Kelly McDonald conducted a general biological survey of the Lynch and Harris Creek project sites and the BSAs on September 22, 2021 to document existing site conditions and the potential presence of sensitive biological resources. The Lynch and Harris Creek project sites were surveyed on foot, and all biological resources observed were noted. The former marina project site was viewed from the Harris Creek project site—binoculars were utilized to maximize identification and observation of distant species. Suitable habitat for any species of interest or concern was duly noted, and general site conditions were photographed (see Attachment B). The field survey took place on a clear sunny morning with weather conditions conducive to the detection of plant and animal species.

RESULTS

Vegetation

The Lynch and Harris Creek BSAs mainly consists of blue oak woodland, coyote bush scrub, lakeshore, open water, developed and ruderal (e.g., disturbed, weedy) areas with patches of mostly nonnative herbaceous plant species. The former marina project site is moored within Lake San Antonio, which is described as open water. Anthropogenic areas are those areas that have been converted from their natural habitat to ones that are subject to ongoing human maintenance and disturbance; these areas include roads, road shoulders, and areas that are disturbed or maintained. Figures 6 and 7 in Attachment A show vegetation and land cover types existing on the BSAs. The

acreages of each vegetation community and land cover type occurring within the BSAs are shown in Tables A and B, below.

Table A: Vegetation and Land Cover Types Within the Lynch BSA

Vegetation / Land Cover Type	Acreage[1]
Lakeshore	0.50
Developed	0.75
Blue Oak Woodland	0.31
Coyote Bush Scrub	1.47
Disturbed	0.02
Non-native Annual Grassland	0.97
Total Project Area	**4.02**

[1] All presented acreages are approximate and based on geographic information system measurements.

Table B: Vegetation and Land Cover Types Within the Harris Creek BSA

Vegetation / Land Cover Type	Acreage
Developed	8.97
Blue Oak Tree	0.09
Blue Oak Woodland	1.50
Non-native Annual Grassland	4.23
Coyote Bush Scrub	7.61
Lakeshore	3.76
Open Water	29.62
California Buckwheat Scrub	0.97
Disturbed	2.01
Ruderal	4.60
Total Project Area	**63.36**

A total of 31 vascular plant species were identified within both BSAs during the September 2021 field survey. See Attachment C for a complete list of species identified on the BSAs. The following describes the vegetation and land cover types occurring within the two BSAs:

Developed: Developed sites consist of paved areas, buildings, and other areas that are cleared or graded for anthropogenic purposes. Several areas within the project sites and BSAs contain developed areas.

Blue Oak Woodland (*Quercus douglasii* Forest & Woodland Alliance): This woodland/forest alliance is classified as being dominant to co-dominant with California buckeye (*Aesculus californica),* California juniper *(Juniperus californica),* grey pine (*Pinus sabiniana*), coast like oak *(Quercus agrifolia)* and valley oak *(Quercus lobate)*. Additionally, the herbaceous layer is sparse or grassy, and forbs are present seasonally. Trees observed within the project sites and BSAs include valley and blue oaks with blue oaks being the dominant species.

Non-native Annual Grassland (*Bromus Diandrus-Brachypodium distachyon* Semi-Natural Herbaceous Stands): This grassland alliance is found in all topographic settings and soil textures

throughout the state. Within the BSA, this vegetation type is dominated by invasive/pioneering[1] soft chess (*Bromus hordeaceus*)*, ripgut brome (*Bromus diandrus*)*, wild oat (*Avena fatua*)* and slender oats (*Avena barbata*)*, with lesser cover by other nonnative plant species such as black nightshade (*Solanum nigrum*)*, among others. Several native plants are present at low cover, including doveweed (*Croton Setiger*) and vinegarweed (*Trichostema lanceolatum*). The dominance of nonnative weedy species is indicative of historical and recent soil disturbance from the longstanding recreational activities in the area.

Coyote Bush Scrub (*Baccharis pilularis* Shrubland Alliance): Areas mapped as coyote bush scrub are dominated by coyote bush with small patches of mulefat (*Baccharis salicifolia*). This shrubland alliance is found on exposed slopes, terraces, stream sides, and gaps in forest stands in variable soils ranging from sandy to heavy clay. Coyote bush scrub was mapped along the exposed slopes, a transitional area between Lake San Antonio and the current high water mark.

Lakeshore: Lakeshore consist of sparsely vegetated areas and rocky substrate located at the edges of Lake San Antonio.

Open Water: Open water consists of the portion of Lake San Antonio that was inundated at the time of vegetation mapping.

California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance): California buckwheat scrub shrubland alliance is dominated by California buckwheat and may contain an herbaceous layer. This shrubland alliance is found in upland slopes.

Disturbed: Disturbed areas lacked vegetation or supported a sparse cover of ruderal vegetation, with nonnative plant species such as shortpod mustard (*Hirschfeldia incana*)* being the most frequently encountered plant species. Several other invasive, pioneering plant species were also observed in these areas.

Ruderal: Areas classified as ruderal consist of early successional grassland dominated by pioneering herbaceous plants that readily colonize disturbed ground. Ruderal plants dominant within this area include weedy or pioneering species such as: shortpod mustard* telegraph weed (*Heterotheca grandiflora*), rough cockle-bur (*Xanthium strumarium*)*, milk thistle (*Silybum marianum*)* and Russian thistle (*Salsola tragus*)*.

Wildlife

A total of 37 wildlife species were observed on or near the BSAs during the September 2021 survey. Frequently observed species included western bluebird (*Sialia mexicana*), Columbian black-tailed deer (*Odocoileus hemionus columbianus*), and acorn woodpecker (*Melanerpes formicivorus*). Each of the 37 species observed commonly occur in and around open space and blue oak woodlands throughout California. A list of wildlife species observed can be found in Attachment C.

The BSAs are surrounded by paved roads, blue oak woodlands, and undeveloped lands used for recreational activities (i.e. camping, boating, hiking). Resident and migratory bird species may utilize

[1] An asterisk denotes nonnative species.

the BSAs for foraging; however, most usage is likely transient and limited to species that forage over grassland areas and oak woodlands. The project sites do not possess any characteristics that would indicate locally significant stopover points for migratory species including raptors or waterfowl. Nevertheless, several common and special-status species are known to move throughout lands in the general vicinity.

Special-Status Natural Communities

The CNDDB search identified occurrences of two special-status natural (i.e., plant) communities within the nine-quad search area: Sycamore Alluvial Woodland and Valley Oak Woodland[1]. Both of these special-status natural communities occur outside of the BSAs. One special-status natural community, blue oak woodland, was mapped in a small area within the Harris Creek BSA. No sensitive natural community is located within the Lynch BSA.

Special-Status Plants

Attachment D contains tables that identify special-status species known to occur or that potentially occur in the vicinity of the project sites and include detailed information about each species' habitat and distribution, activity period, listing/status designations, and probability of occurrence within the project site boundaries. These species were compiled from the CNPS, CNDDB, and IPaC records searches from a 5-mile radius around the project site and from LSA's extensive knowledge and experience in the region.

The literature review identified 27 special-status plant species that are known to occur within a nine-quad radius of the BSAs. Fourteen of the plant species identified have a low probability of occurring within the BSAs based on the presence of potentially suitable habitat and conditions recorded during the field survey. The extensively disturbed nature of the project sites limits the probability that a population of special-status plant species would occur within the proposed ground disturbance footprint. However, because the September 2021 survey was conducted outside of the typical blooming period of most regionally occurring special-status plant species, the presence or absence of these species could not be definitively determined. An appropriately-timed botanical survey is recommended to occur prior to project-related ground disturbance to verify the absence of special-status plant species.

Special-Status Animals

The literature review identified 30 special-status animal species that are known to occur within a nine-quad radius of the BSAs. Of those 30, three special-status animal species, [bald eagle (*Haliaeetus leucocephalus*), San Joaquin kit fox (*Vulpes macrotis mutica*) and northern California legless lizard (*Anniella pulchra*)], have documented CNDDB records within a five-mile radius of the BSAs (refer to Attachment D). There are no known occurrences of any special-status animal species within the BSAs.

[1] The CNDDB uses sensitive vegetation community names described in the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). No new sensitive natural community records have been added to the CNDDB since the 1990s. Therefore, natural communities mapped by the CNDDB are limited.

Two foraging bald eagles were observed within the Harris Creek BSA during the field survey (refer to Figure 7). No special-status animal species were observed within the Lynch BSA or the former marina project site.

Ten special-status species, northern California legless lizard, prairie falcon (*Falco mexicanus*), northern harrier (*Circus hudsonius*), western pond turtle (*Emys marmorata*), Monterey hitch (*Lavinia exilicauda harengus*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), Townsend's big-eared bat (*Corynorhinus townsendii*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*) and coast horned lizard (*Phrynosoma blainvillii*), have the potential to occur in the BSAs due to the presence of potentially suitable habitat and known occurrence records in the project vicinity. Specifically, Monterey hitch have potential to occur within Lake San Antonio and western pond turtle has the potential to occur within Lake San Antonio and along the lake shoreline. Coyote bush scrub, located within the area for the proposed walkway, contains suitable habitat for the northern California legless lizard, San Joaquin coachwhip, and coast horned lizard. The remaining species have the potential to forage within the BSAs. No other special-status animal species or signs of such species were observed and no other special-status wildlife species are expected to occur within the BSAs due to the lack of suitable habitats and the developed/maintained conditions present throughout the project sites.

Wetlands and Potential Jurisdictional Aquatic Resources

Lake San Antonio (and the current high water lake shoreline of Lake San Antonio) are located within a majority of the Harris Creek project site and BSA. The Lynch project site and BSA are located within the current high water lake shoreline of Lake San Antonio. The former marina project site is also located within Lake San Antonio.

Water from Lake San Antonio is released periodically by Monterey County Water Resources Agency into San Antonio River downstream of the dam. San Antonio River conveys flows into the Salinas River, which conveys flows into the Pacific Ocean, a traditional navigable water of the U.S. Due to observable banks and defined connections to other drainage features, Lake San Antonio meets the current regulatory definition of waters of the United States subject to U.S. Army Corps of Engineers jurisdiction under the federal Clean Water Act. Any discharge of fill or waste material within Lake San Antonio would also be subject to regulation by the Regional Water Quality Control Board as waters of the State. Physical modifications within the high water lake shoreline or tributaries would also be subject to CDFW jurisdiction under Section 1602 of the California Fish and Game Code.

Local and Regional Oak Tree Policies

Monterey County currently does not have a regional Natural Community Conservation Plan or Habitat Conservation Plan. The 2010 General Plan for Monterey County outlines local relevant policies related to biological resources. Below is the list of applicable polices:

- Policy Open Space (OS)-5.23: The County shall prepare, adopt and implement a program that allows projects to mitigate the loss of oak woodlands, while also taking into consideration wildfire prevention/protection. Consistent with California Public Resources Code Section 21083.4, the program shall identify a combination of the following mitigation alternatives:

- a) ratios for replacement,
- b) payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance; and
- c) conservation easements.

The program shall identify criteria for suitable donor sites. Mitigation for the loss of oak woodlands may be either on-site or off-site. The program shall allow payment of fees to either a local fund established by the County or a state fund. Until such time as the County program is implemented consistent with Public Resources Code Section 21083.4(b), projects shall pay a fee to the state Oak Woodlands Conservation Fund (OWCF). Replacement of oak woodlands shall provide for equivalent acreage and ecological value at a minimum of 1:1 ratio. The program shall prioritize the conservation of oak woodlands that are within known wildlife corridors as a high priority. The oak woodlands mitigation program shall be adopted within 5 years of adoption of the General Plan.

Because there is no tree removal, the project would also not be subject to the 2010 Monterey County Zoning Ordinance for tree removals[1] and therefore, the project would not conflict with any local policies or ordinances protecting biological resources.

IMPACT FINDINGS

Special-Status Natural Communities

One special-status natural community, Blue Oak Woodland, was mapped within a small area of the Harris Creek BSA; however, this natural community would not be impacted by proposed project activities. No sensitive natural communities are located within the Lynch BSA. Therefore, no mitigation is required.

Special-Status Species

No special-status plant species were observed within the BSAs and none were deemed to have a high probability of occurrence within the project disturbance limits. However, due to the timing of the survey, an appropriately-timed botanical survey is recommended to capture any annual plant species or special-status plant species that may not have been observable during the 2021 survey. In areas where suitable habitat is present, implementation of the proposed project could adversely affect special-status plant species due to loss of habitat/species associated with development of proposed improvements (e.g., walkway, marina anchors). Therefore, Mitigation Measure BIO-1 is recommended as a pre-construction avoidance measure.

[1] Monterey County Municipal Code. 2013. Title 16. Environment. Chapter 16.60 Preservation of Oak and Other Protected Trees. https://library.municode.com/ca/monterey_county/codes/code_of_ordinances?nodeId=TIT16EN_CH16.60PROAOTPRTR (accessed September 20, 2021).

One special-status animal species, bald eagle, was observed foraging during the September 2021 field survey and no potential nest sites were observed within the BSAs. Therefore, no impacts to this species are anticipated with project implementation.

Table C provides the total acreages of each vegetation community and land cover type documented within the Lynch and Harris Creek project sites that would be directly and permanently impacted by construction activities. The removal of developed and disturbed habitat documented on the project sites is not anticipated to substantially impact the population sizes of any special-status animal species due the small acreage of impact, low quality of habitat, and setting of the project sites.

Table C: Direct Permanent Impacts by Land Cover Type

Vegetation / Land Cover Type	Lynch Project site (acres)	Harris Creek Project site (acres)
Lakeshore	0	0.046
Coyote Bush Scrub	0	0.046
Disturbed	0	0.006
Open Water	0	0.16
Developed	0.025	0.002
Ruderal	0	0.020
Total Project Impacts	**0.025**	**0.28**

As a result of the construction-related activities, vegetation removal could result in indirect temporary impacts such as erosion, runoff and sediment entering into Lake San Antonio. These potential temporary indirect impacts would be substantively minimized or avoided through the implementation of a Storm Water Pollution Prevention Plan (SWPPP) and an Erosion Control as part of the mitigation for water quality.

Construction activities within Lake San Antonio (e.g., placement of the new marina and associated in-water anchors) are not anticipated to impact Monterey hitch or western pond turtle as these species are highly mobile and would be expected to temporarily avoid areas where the marina and anchors are being placed.

Construction activities along the lake shoreline (e.g., development of the walking trail and installation of the marina anchor points) could impact native vegetation and jurisdictional aquatic resources that provide suitable habitat for special-status species, including northern California legless lizard, western pond turtle, San Joaquin coachwhip and coast horned lizard. If present during construction activities, individuals of these species could be exposed to direct impacts such as injury or mortality during ground and vegetation disturbance, or indirect impacts such as noise and vibration which could affect movement, breeding, foraging, or sheltering behaviors. Therefore, Mitigation Measures BIO-2, BIO-3, and BIO-4**,** which require a worker environmental awareness program, preconstruction surveys, construction monitoring and reporting, and delineation of the project site, shall be implemented to avoid or minimize impacts to special-status to less than significant.

Following project construction, operation of the walking trail and off-shore marina are not anticipated to result in any changes to the existing environmental baseline with respect to special-status species due to the longstanding anthropogenic uses (and same uses under the proposed

project condition). As such, no operational or long-term impacts on special-status species associated with these project components would occur. However, operation of the new fuel system (e.g., in-water boat fueling) has the potential to result in fuel spills that could enter into jurisdictional areas and impact special-status species. The preparation and implementation of an Operational Spill Prevention, Control and Countermeasure (SPCC) Plan will be implemented as part of the mitigation for hazards.

Nesting Birds

The project sites and BSAs contain vegetation that provides suitable nesting habitat for a variety of native and migratory bird species, which are protected while nesting. To ensure compliance with the Federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3500–3516, pre-construction nesting bird surveys are recommended to occur prior to any vegetation clearing or construction activities planned to occur during the nesting bird season (January 1 through September 30). With successful implementation of the recommended impact avoidance measures (specifically BIO-8), impacts to nesting birds would be avoided.

Critical Habitat

There is no designated or proposed critical habitat for any federally-listed species within the BSAs. The project would not result in any direct impacts to critical habitats. No oak trees are located within the direct project disturbance limits therefore no mitigation is required.

Wetlands and other Aquatic Resources

The construction of a walkway and installation of marina anchor points within Lake San Antonio's current high water line level at the Harris Creek Site would permanently impact approximately 0.28 acre of non-wetland waters. It is also proposed to remove the former concrete marina walkway at the Lynch Site, which is located within the current high water lake shoreline of Lake San Antonio. Due to the removal of the "fill" from the former Lynch marina walkway and passive restoration of native habitat within this area, the proposed project impacts to jurisdictional resource functions and values would be offset. Due to the direct impacts to jurisdictional aquatic resources and discharge of fill material within the delineated aquatic resource limits, permits under Clean Water Act (CWA) Sections 401 and 404 and California Fish and Game Code Section 1602 are anticipated to be required for the project; therefore, Mitigation Measure BIO-5 is required.

Construction of the walkway and marina anchor points would require operation of construction equipment within delineated jurisdictional aquatic resource areas. Use of construction equipment could result in indirect temporary impacts such as dust, potential fuel spills from construction equipment, construction-related runoff, and erosion, which could potentially enter Lake San Antonio. Construction activities could also result in the germination and proliferation of non-native, invasive plant species, which could outcompete and/or displace native vegetation within the current high water lake shoreline of Lake San Antonio. Therefore, the project will require proper storage of construction equipment and implementation of Mitigation Measure BIO-6. Furthermore, to reduce the spread of invasive plant species**,** Mitigation Measure BIO-7 will be implemented to reduce this potential indirect impact to jurisdictional features to less than significant. Additionally, implementation of water quality measures, which require preparation and implementation of a SWPPP and Erosion Control Plan, would control runoff, erosion, and sediment movement during

project construction, thereby minimizing contaminants associated with construction-related activities from inadvertently entering Lake San Antonio. Operation of the new fuel system could result in potential fuel spills entering into jurisdictional areas. Preparation and implementation of an Operational Spill Prevention, Control and Countermeasure (SPCC) Plan would be implemented to reduce potential operational-related impacts associated with the fueling system to less than significant.

Wildlife Movement

The wildlife species that occur in the project vicinity are adapted to the urban-wildland interface, and the project would not introduce new affects to the areas. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving in close proximity to recreational developments would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. The impact is considered less than significant, and no additional mitigation is required.

RECOMMENDED IMPACT AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following measures are recommended to be implemented to avoid, minimize, and/or mitigate impacts on special-status species, jurisdictional aquatic resources, and nesting birds.

MM BIO-1: **Springtime Botanical Inventory and Special-Status Plant Avoidance or Compensation.** At least 14 days prior to any ground disturbing activities, a qualified biologist, approved by Monterey County, shall conduct a spring botanical survey within the area of direct Project impacts. The survey shall be completed between March and May, at the peak of the spring time blooming season or when regional annual special-status plants are observable. The results of the survey shall be documented in a concise memorandum that includes a full botanical inventory of the Project site prior to any ground disturbance activities.

If special-status plant species are present within the Project site(s) where direct impacts to the species can be avoided, the special-status plant species shall be avoided and a qualified biologist shall clearly delineate the avoidance area. No ground-disturbing activities shall occur within the exclusion area(s).

If special-status plant species cannot be avoided, the qualified biologist shall develop a Project-specific Special-Status Plant Species Mitigation Plan. If a plant listed under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA) is found within the direct impact area, the County of Monterey Public Works, Facilities, & Parks shall obtain any necessary authorization from the appropriate agency prior to impacts and prior to implementing measures specific to that species. The County of Monterey Public Works, Facilities, & Parks shall review and approve the Special-Status Plant Species Mitigation Plan prior to

implementation. Compensatory mitigation shall be provided in accordance with resource agency requirements and/or one or more of the following methods:

- The acquisition, protection, and in-perpetuity management of other existing plant species occurrences/populations at a minimum 1:1 conservation-to-impact ratio.

- The salvage of seed and/or plant material for translocation and/or planting at suitable off-site location(s), with long-term protections, monitoring, and management requirements that ensure the translocated or seeded individuals are self-sustaining for a minimum of 5 years at a minimum 1:1 compensation-to-impact ratio.

MM BIO-2: **Worker Environmental Awareness Program (WEAP).** Prior to any ground disturbance or construction activities, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the western pond turtle, northern California legless lizard and nesting birds, the specific measures that are being implemented to avoid adverse effects to biological and aquatic resources, and the boundaries of the Project site. The training shall explain local, State, and federal regulations/authorizations pertaining to biological and aquatic resources that are/may be applicable to the Project, as well as all measures related to biological and aquatic resources that must be implemented during construction.

MM BIO-3: **Preconstruction Surveys, Construction Monitoring, and Reporting**. Within 3 days prior to initiation of vegetation removal, a qualified biologist shall conduct a preconstruction survey to ascertain the presence or absence of special-status wildlife species. A qualified biological monitor shall be present during all vegetation clearing activities (including mowing and/or initial ground disturbance) and ground disturbance to ensure avoidance or relocation of special status species, when feasible.

When avoidance or relocation is not feasible, the qualified biologist shall establish a buffer, which would be avoided until the qualified biologist determines that work can proceed. The qualified biologist shall receive approvals from the resource agencies prior to handling any special-status wildlife species. If a federally- and/or State-listed or fully-protected species is observed within the Project site, work activities with potential to directly or indirectly disturb the plant or animal (as determined by the qualified biologist) shall not occur until the appropriate regulatory agency (California Department of Fish and Wildlife and/or United States Fish and Wildlife Service) has authorized the work to proceed.

The results of all pre-construction surveys and compliance monitoring shall be documented and reported to the County by the qualified biologist and the documentation shall be available upon request throughout the duration of construction activities.

MM BIO-4: **Project Site Delineation.** Prior to the start of construction, the qualified biologist shall clearly delineate (i.e., with stakes, flagging, fencing, and/or temporary signage) the work areas to ensure that no work occurs outside the approved limits of disturbance. This fencing used to delineate the work area will also serve as a temporary barrier to minimize the potential for special-status species to enter work areas during construction and/or become trapped within the fenced Project site.

MM BIO-5 **Permitting for the South Shore Marina Project**. Prior to construction of the proposed Project, the County of Monterey Public Works, Facilities, & Parks or designee shall submit resource agency permit applications and obtain permit authorizations from the United States Army Corps of Engineers (USACE) (Section 404 Nationwide Permit authorization), CDFW (Section 1602 Streambed Alteration Agreement), and Regional Water Quality Control Board (Section 401 Water Quality Certification). The County of Monterey Public Works, Facilities, & Parks or designee shall ensure compliance with all permit conditions.

MM BIO-6 **Equipment Staging and Best Management Practices (BMPs).** Prior to the start of construction, the qualified biologist shall delineate construction staging areas away from Lake San Antonio. The designated upland areas shall be located in such a manner as to prevent any loose soil or spill runoff from entering jurisdictional waterways or adjacent sensitive vegetation communities. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities used by the Project Contractor shall occur in these designated staging areas.

MM BIO-7 **Invasive Species Control.** Any plants removed or soil disturbed during the course of construction shall be contained and properly disposed of offsite. All mulch, topsoil, seed mixes, or other plantings used for erosion-control shall be free of invasive plant species seeds or propagules. No vegetation listed on the Cal-IPC inventory shall be installed on the Project, and all plant palettes proposed to be installed on the Project site(s) shall be reviewed and approved by a qualified biologist.

MM BIO-8: **Nesting Bird Surveys and Active Nest Avoidance.** Any vegetation removal shall take place outside of the active nesting bird season (i.e., January 1–September 30), when feasible, to ensure compliance with the California Fish and Game Code. Should vegetation removal take place during the nesting bird season, a qualified biologist shall conduct a nesting bird survey prior to clearing activities to ensure that birds are not engaged in active nesting within or immediately adjacent to the Project site. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer (i.e., up to 500 feet depending on the circumstances and specific bird species) where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting birds are allowed to take place until after the birds have fledged from the nest, or the qualified biologist has determined that the nest is no longer active.

CONCLUSION

Based on field observations coupled with the habitat suitability analysis conducted for this assessment, the proposed project has low potential to impact several regionally-occurring special-status wildlife species. The project is not anticipated to impact any special-status plant species, natural communities, or other habitats of concern. The project would impact aquatic resources at Harris Creek as a result of the "fill" within the delineated aquatic resources. Aquatic resources within Lynch would be compensated for due to no net loss (removal of "fill") within the aquatic resource. The recommended measures outlined related to special-status species and the delineated aquatic resources reduce the impacts to jurisdictional features to less than significant.

The implementation of the recommended measures detailed herein would ensure consistency with local policies related to biological resources, and would avoid or minimize any potentially significant impacts on special-status wildlife species to a less than significant level.

If you have any questions regarding this letter report, please contact Kelly McDonald at (805) 782-0745.

Sincerely,
LSA

Kelly McDonald

Attachments: A: Figures
B: Representative Site Photographs
C: Vascular Plant and Animal Species Observed
D: Summary of Special-Status Species

ATTACHMENT A

FIGURES

LSA

LEGEND

Project Site

FIGURE 1

N

0 825 1650

FEET

SOURCE: Bing Maps, 2020

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_ProjectLocation and Vic.mxd (9/28/2021)

Lake San Antonio South Shore Marina Project

Project Location and Vicinity of the South Shore Marina Project Sites

LSA

FIGURE 2

LEGEND

Project Site

Current High Water Lake Shoreline

0 825 1650

FEET

SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Overview of the South Shore Marina Project Sites

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_ProjectSiteOverview.mxd (9/28/2021)

LSA

FIGURE 3

LEGEND

- Flexible Fuel Piping
- Marina
- Fuel Tank
- Underground Powerline
- Walking Trail
- Project Site
- Biological Study Area
- Current High Water Lake Shoreline

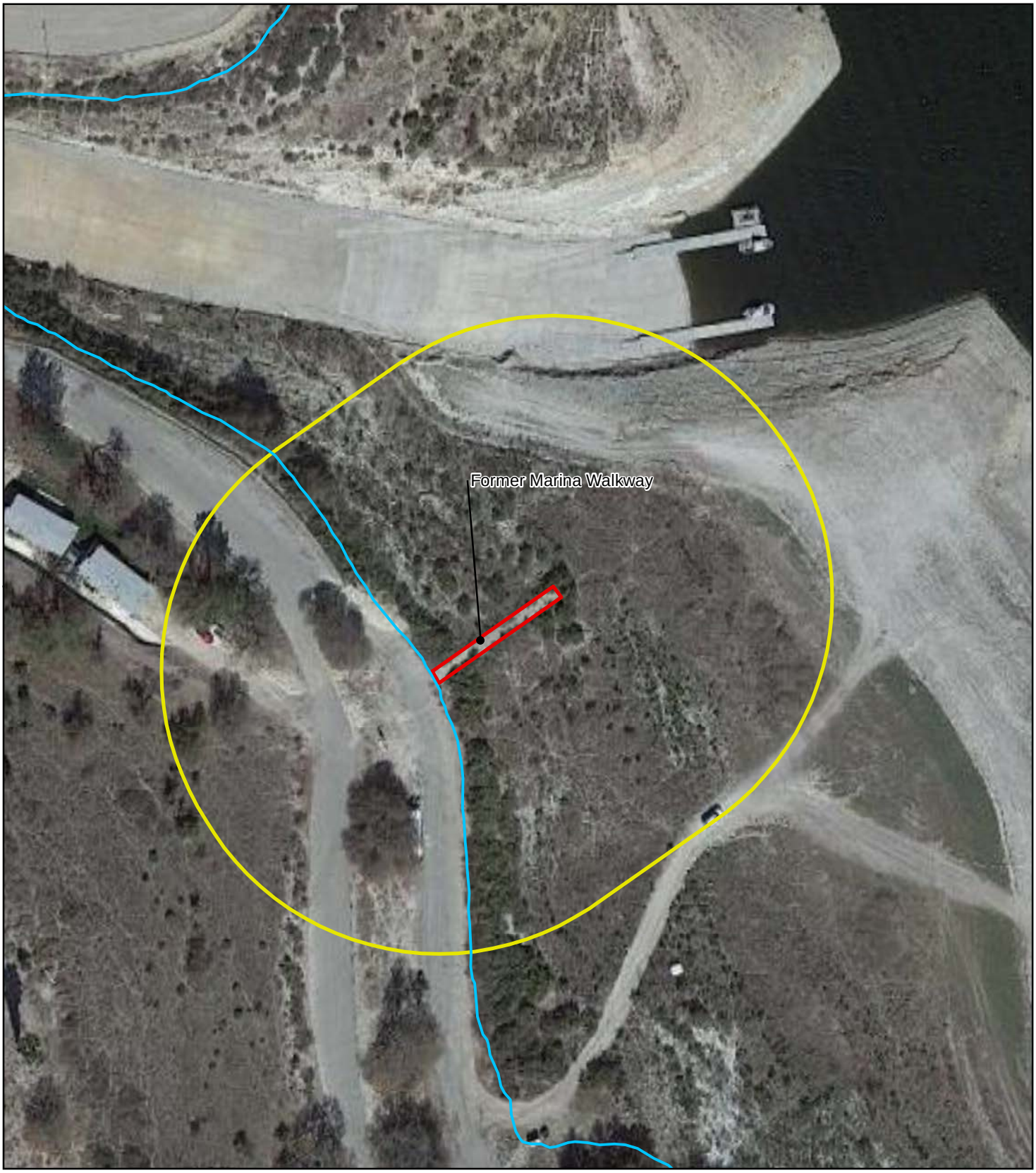
0 162.5 325
FEET

SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Harris Creek Project Site

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Harris Creek.mxd (9/28/2021)



LSA

LEGEND

Project Site

Biological Study Area

Current High Water Lake Shoreline

N

0 50 100

FEET

SOURCE: Bing Maps, 2020

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Lynch.mxd (9/28/2021)

FIGURE 4

Lake San Antonio South Shore Marina Project

Lynch Project Site

LSA

LEGEND

Project Site

Current High Water Lake Shoreline

FIGURE 5

0 162.5 325

FEET

SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Former Marina Project Site

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Marina.mxd (9/28/2021)

LSA

FIGURE 6

LEGEND

- Project Site
- Biological Study Area
- Current High Water Lake Shoreline

Vegetation and Land Cover

- Coyote Bush Scrub
- Developed
- Disturbed
- Non-native Annual Grassland
- Lake Shore
- Blue Oak Woodland

N

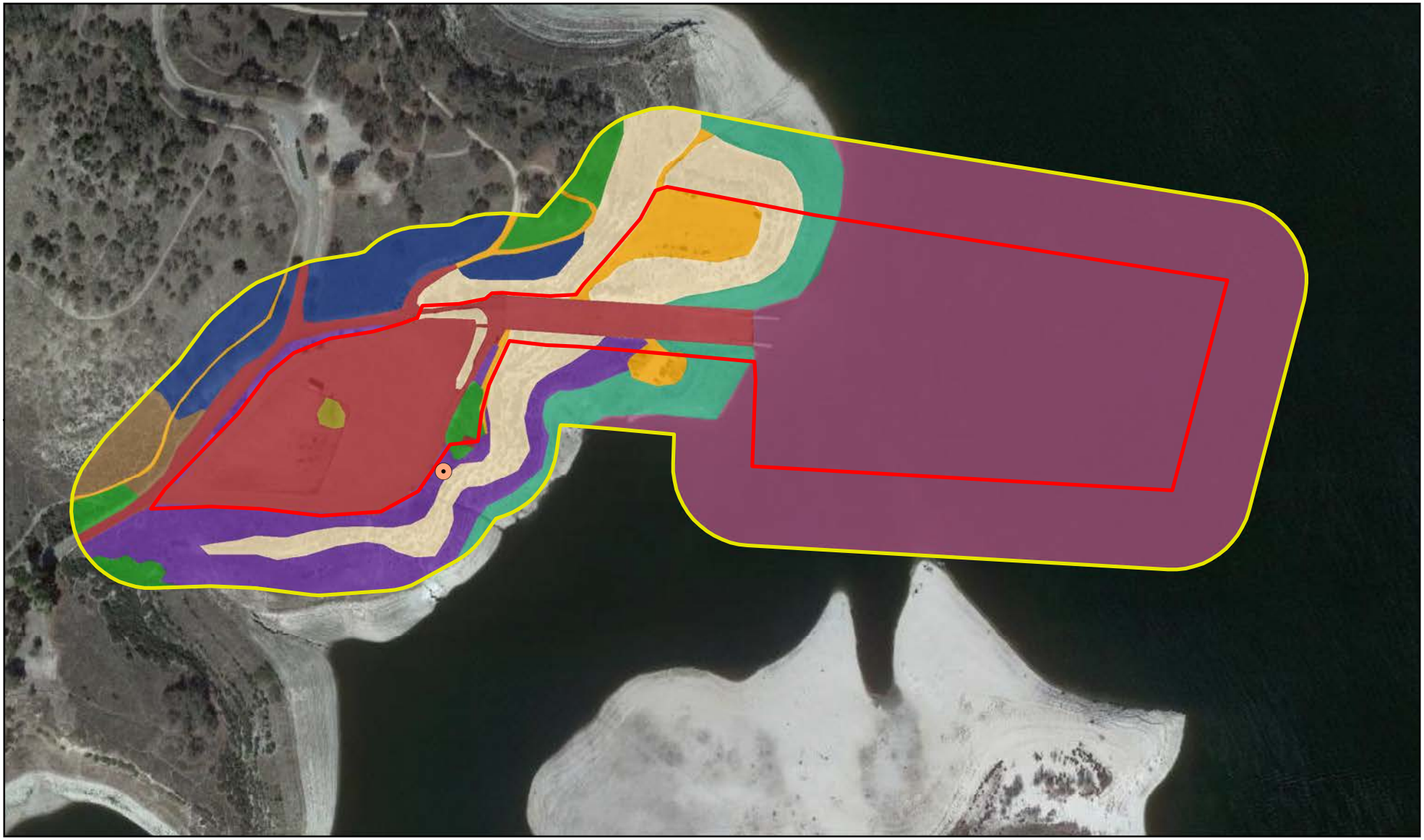
0 50 100
FEET

SOURCE: Bing Maps, 2020

Lake San Antonio South Shore Marina Project

Lynch Vegetation and Land Cover

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Lynch_Vegetation.mxd (11/1/2021)



LSA

FIGURE 7

Lake San Antonio South Shore Marina Project

Harris Creek Vegetation and Land Cover

I:\Lake San Antonio\GIS\MXD\Bio\SouthShore_Harris Creek_Vegetation.mxd (11/1/2021)

ATTACHMENT B

REPRESENTATIVE SITE PHOTOGRAPHS

Overview of the Harris project site displaying the proposed walking trail, underground powerline, flexible fuel piping, and fuel tank, facing north. September 22, 2021.

View of the Harris Creek project site and the location of the proposed underground power line. September 22, 2021

View of the Harris Creek project site and the location of the proposed walking trail and marinafacing east, displaying developed areas, open water and coyote bush scrub. September 22, 2021.

View of Lynch project site and former marina walkway facing north. September 22, 2021.

View of the current AST at the Lynch project site project site which will be moved to the Harris Creek project site. September 22, 2021.

View of the vegetation adjacent to the Lynch project site, facing west, September 22, 2021

View of the Lynch project site from the bottom of the former marina walkway, facing west. September 22, 2021.

View of the vegetation adjacent to the Lynch project site, facing east September 22, 2021

View of the Lynch project site and coyote bush scrub, facing east. September 22, 2021

View of the former marina docked within Lake San Antonio facing southeast. September 22, 2021

ATTACHMENT C

VASCULAR PLANT AND ANIMAL SPECIES OBSERVED

VASCULAR PLANT SPECIES OBSERVED

The following vascular plant species were observed in the specified study area by LSA biologist Kelly McDonald on September 22, 2021.

* introduced species not native to California

Scientific Name	Common Name
LICHENS	
Ramalina menziesii	Lace lichen
GYMNOSPERMS	
Asteraceae	**Sunflower Family**
Achillea millefolium	Common yarrow
Baccharis pilularis	Coyote bush
Baccharis salicifolia	Mulefat
Erigeron canadensis	Horseweed
Heterotheca grandiflora	Telegraph weed
Deinandra lobbii	Threeray tarweed
Senecio flaccidus	Threadleaf groundsel
*Silybum marianum**	Milk thistle
Stephanomeria exigua	Small wirelettuce
*Xanthium strumarium**	Rough cockle-bur
Brassicaceae	**Mustard Family**
*Hirschfeldia incana**	Shortpod mustard
Caryophyllaceae	**Pink Family**
*Polycarpon tetraphyllum**	Fourleaf manyseed
Chenopodiaceae	**Goosefoot Family**
*Salsola tragus**	Russian thistle
Euphorbiaceae	**Spurge Family**
Croton setiger	Doveweed
Fabaceae	**Pea Family**
Acmispon glaber	Deerweed
Fagaceae	**Beech Family**
Quercus agrifolia var. *agrifolia*	Coast live oak
Quercus douglasii	Blue oak
Quercus lobate	Valley Oak
Lamiaceae	**Mint Family**
Trichostema lanceolatum	Vinegarweed
Polygonaceae	**Buckwheat Family**
Eriogonum fasciculatum	California buckwheat
Eriogonum elongatum	Longstem buckwheat
Solanaceae	**Nightshade Family**
*Solanum nigrum**	Black nightshade
Verbenaceae	**Vervain Family**
Verbena bracteata	Bigbract verbena
Verbena lasiostachys	Western verbena

Scientific Name	Common Name
Viscaceae	**Mistletoe Family**
Phoradendron serotinum ssp. *tomentosum*	Oak mistletoe
MONOCOTS	
Poaceae	**Grass Family**
*Avena barbata**	Slender wild oat
*Avena fatua**	Common wild oat
*Bromus hordeaceus**	Soft chess
*Bromus diandrus**	Ripgut brome
*Hordeum murinum**	

WILDLIFE SPECIES OBSERVED

The following wildlife species were observed in the specified study area by LSA biologist Kelly McDonald on September 22, 2021.

Common Name	Scientific Name
Invertebrates	
Mormon Metalark	*Apodemia mormo*
Mylitta Crescent	*Phyciodes mylitta*
Birds	
California quail	*Callipepla californica*
Double-crested cormorant	*Phalacrocorax auritus*
Great blue heron	*Ardea herodias*
Great egret	*Ardea alba*
Turkey vulture	*Cathartes aura*
Bald eagle	*Haliaeetus leucocephalus*
Red-tailed hawk	*Buteo jamaicensis*
Western gull	*Larus occidentalis*
Mourning dove	*Zenaida macroura*
Greater roadrunner	*Geococcyx californianus*
Allen's hummingbird	*Selasphorus sasin*
Anna's hummingbird	*Calypte anna*
Acorn woodpecker	*Melanerpes formicivorus*
Nuttall's woodpecker	*Picoides nuttallii*
White-breasted nuthatch	*Sitta carolinensis*
Black phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
American crow	*Corvus brachyrhynchos*
Western scrub jay	*Aphelocoma californica*
Barn swallow	*Hirundo rustica*
Oak titmouse	*Baeolophus inornatus*
Bushtit	*Psaltriparus minimus*
House wren	*Troglodytes aedon*
Wrentit	*Chamaea fasciata*
Western bluebird	*Sialia mexicana*
California thrasher	*Toxostoma redivivum*
European starling*	*Sturnus vulgaris*
California towhee	*Melozone crissalis*
Lark sparrow	*Chondestes grammacus*
Song sparrow	*Melospiza melodia*
White-crowned sparrow	*Zonotrichia leucophrys*
Dark-eyed junco	*Junco hyemalis*
House finch	*Carpodacus mexicanus*
Lesser goldfinch	*Carduelis psaltria*
Mammals	
Columbian black-tailed deer	*Odocoileus hemionus columbianus*

ATTACHMENT D

SUMMARY OF SPECIAL-STATUS SPECIES

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
Indian Valley spineflower	*Aristocapsa insignis*	US: – CA: – CNPS: 1B.2	Annual herb occurring in cismontane woodland in sandy soil between 300 and 600 m in elevation. Monterey and San Luis Obispo counties.	May-September	**Low probability of occurrence.** There is one known record of occurrence in the project vicinity [1] (CNDDB 1956) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
La Panza mariposa-lily	*Calochortus simulans*	US: – CA: – CNPS: 1B.3	Perennial bulbiferous herb occurring in cismontane woodland, chaparral, lower montane coniferous forest, and valley/foothill grassland between 325 and 1,150 m in elevation. San Bernardino, San Luis Obispo and Santa Barbara counties.	April-June	**Low probability of occurrence.** There is one known record of occurrence in the project vicinity (CNDDB 1986) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Dwarf calycadenia	*Calycadenia villosa*	US: – CA: – CNPS: 1B.1	Annual herb occurring in chaparral, cismontane woodland, meadows, seeps and valley/foothill grassland between 240 and 1,350 m in elevation.	May-October	**Low probability of occurrence.** There are two known records of occurrence in the project vicinity (CNDDB 1992, 2007) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Hardham's evening-primrose	*Camissoniopsis hardhamiae*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral and cismontane woodland between 140 and 945 m in elevation. Monterey and San Luis Obispo counties.	March-May	**Low probability of occurrence.** There are no known record of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
San Luis Obispo owl's-clover	*Castilleja densiflora var. obispoensis*	US: – CA: – CNPS: 1B.2	Annual herb occurring in meadows, seeps and valley/foothill grassland between 10 and 430 m in elevation. San Luis Obispo county.	March-May	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within Harris Creek and Lynch project sites.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
Lemmon's jewelflower	*Caulanthus lemmonii*	US: – CA: – CNPS: 1B.2	Annual herb occurring in pinyon/juniper woodland and valley/grassland between 80 and 1,580 m in elevation. Found in Central and Valley counties of California.	February-May	**Not expected.** There are three known records of occurrence in the project vicinity (CNDDB 1938, 1959, 1991) and suitable habitat is absent within Harris Creek and Lynch project sites.
Santa Lucia purple amole	*Chlorogalum purpureum var. purpureum*	US: FT CA: – CNPS: 1B.1	Perennial bulbiferous herb occurring in chaparral, cismontane woodland and valley/foothill grassland between 205 and 385 m in elevation. Monterey and San Luis Obispo counties.	April-June	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Straight-awned spineflower	*Chorizanthe rectispina*	US: – CA: – CNPS: 1B.3	Annual herb occurring in chaparral, cismontane woodland and coastal scrub between 85 and 1,035 m in elevation. Monterey, San Luis Obispo and Santa Barbara counties.	April-July	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Jolon clarkia	*Clarkia jolonensis*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral, cismontane woodland, coastal scrub and riparian woodland between 20 and 660 m in elevation. Monterey county.	April-June	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
San Antonio collinsia	*Collinsia antonina*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral and cismontane woodland between 280 and 365 m in elevation. Monterey county.	March-May	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
San Francisco collinsia	*Collinsia multicolor*	US: – CA: – CNPS: 1B.2	Annual herb occurring in closed-coniferous forest and coastal scrub between 280 and 365 m in elevation. Found in Central Coast and Bay Area counties.	March-May	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Small-flowered gypsum-loving larkspur	*Delphinium gypsophilum ssp. parviflorum*	US: – CA: – CNPS: 3.2	Perennial herb occurring in closed-coniferous forest and coastal scrub between 190 and 350 m in elevation. Kern, Monterey, and San Luis Obispo counties.	April-June	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Umbrella larkspur	*Delphinium umbraculorum*	US: – CA: – CNPS: 1B.3	Perennial herb occurring in chaparral and cismontane woodland between 400 and 1,600 m in elevation. Monterey, Santa Barbara, Ventura and San Luis Obispo counties.	April-June	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Koch's cord moss	*Entosthodon kochii*	US: – CA: – CNPS: 1B.3	Moss occurring in cismontane woodland in the soil between 180 and 1,000 m. Found in Marin, Mariposa, Mendocino, and San Luis Obispo counties.		**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
Yellow-flowered eriastrum	*Eriastrum luteum*	US: – CA: – CNPS: 1B.2	Annual herb occurring in broadleafed upland forest, chaparral, cismontane woodland between 290 and 1,000 m in elevation. Monterey and San Luis Obispo counties.	May-June	**Low probability of occurrence.** There is one known record of occurrence in the project vicinity (CNDDB 1960) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Santa Lucia monkeyflower	*Erythranthe hardhamiae*	US: – CA: – CNPS: 1B.1	Annual herb occurring in the openings of chaparral between 300 and 730 m in elevation. Monterey and San Luis Obispo counties.	March-May	**Not expected.** There is one known record of occurrence in the project vicinity (CNDDB 20XX) and suitable habitat is absent within the Harris Creek and Lynch project sites.
Santa Lucia dwarfrush	*Juncus luciensis*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral, Great Basin scrub, lower montane coniferous forest, meadows, seeps and vernal pools between 300 and 2,040 m in elevation. Found in counties throughout California.	April-June	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Pale-yellow layia	*Layia heterotricha*	US: – CA: – CNPS: 1B.1	Annual herb occurring in cismontane woodland, coastal scrub, pinyon/juniper woodland and valley/foothill grassland between 300 and 1,705 m in elevation. Found in Central Valley and Central Coast counties.	March-June	**Low probability of occurrence.** There are three known records of occurrence in the project vicinity (CNDDB 1959, 1988, 1994) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Abbott's bush-mallow	*Malacothamnus abbottii*	US: – CA: – CNPS: 1B.1	Perennial deciduous shrub occurring in riparian scrub between 135 and 490 m in elevation. Monterey and San Luis Obispo counties.	May-October	**Not expected.** There are two known records of occurrence in the project vicinity (CNDDB 2011) and suitable habitat is absent within the Harris Creek and Lynch project sites.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
Davidson's bush-mallow	*Malacothamnus davidsonii*	US: – CA: – CNPS: 1B.2	Perennial deciduous shrub chaparral, cismontane woodland, coastal scrub, and riparian woodland between 185 and 1,140 m in elevation. Monterey, Kern, Los Angeles, Ventura and San Luis Obispo counties.	June-January	**Absent.** There are five known records of occurrence in the project vicinity (CNDDB 2002, 2011, 2018) but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site. This perennial shrub was not observed during the field survey in 2021, which also coincided with blooming period of this species.
Carmel Valleybush-mallow	*Malacothamnus palmeri var. involucratus*	US: – CA: – CNPS: 1B.1	Perennial deciduous shrub occurring in riparian scrub between 135 and 490 m in elevation. Monterey and San Luis Obispo counties.	April-October	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Carmel Valley malacothrix	*Malacothrix saxatilis var. arachnoidea*	US: – CA: – CNPS: 1B.1	Perennial rhizomatous herb occurring in chaparral and coastal scrub between 25 and 1,036 m in elevation. Monterey, San Benito, Santa Barbara and San Luis Obispo counties.	June-December	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Shining navarretia	*Navarretia nigelliformis ssp. radians*	US: – CA: – CNPS: 1B.2	Annual herb occurring in cismontane woodland, vernal pools and valley/foothill grassland between 65 and 1,000 m in elevation. Monterey and San Luis Obispo counties.	April-July	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Prostrate vernal pool navarretia	*Navarretia prostrata*	US: – CA: – CNPS: 1B.2	Annual herb occurring in coastal scrub, meadows, seeps, vernal pools and valley/foothill grassland between 3 and 1,210 m in elevation. Found throughout California counties.	April-July	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.

Table D-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence
Robbins' nemacladus	*Nemacladus secundiflorus var. robbinsii*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral and valley/foothill grassland between 350 and 1,700 m in elevation. Found in Central Coast and Southern California counties.	April-June	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.
Hooked popcorn flower	*Plagiobothrys uncinatus*	US: – CA: – CNPS: 1B.2	Annual herb occurring in chaparral, cismontane woodland and valley/foothill grassland between 300 and 760 m in elevation. Monterey, San Luis Obispo and San Benito counties.	April-May	**Low probability of occurrence.** There are no known records of occurrence in the project vicinity and suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.
Mason's neststraw	*Stylocline masonii*	US: – CA: – CNPS: 1B.1	Annual herb occurring in chenopod scrub and pinyon/juniper woodland between 100 and 1,200 m in elevation. Monterey, San Luis Obispo, Los Angeles and Kern counties.	March-May	**Not expected.** There are no known records of occurrence in the project vicinity and suitable habitat is absent within the Harris Creek and Lynch project sites.

[1]Project vicinity = Project sites plus a 5 mile buffer
Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Plant (CSP), California Special Animal (CSA)

California Native Plant Society Designations:
1B = Rare, threatened, or endangered in California and elsewhere
2B = Rare, threatened, or endangered in California, but not elsewhere
0.1 = seriously endangered
0.2 = fairly endangered

CA = California
CNPS = California Native Plant Society
ft = foot/feet
m = meter/meters
mi = mile/miles
US = United States

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
CRUSTACEANS				
Vernal pool fairy shrimp	*Branchinecta lynchi*	US: FT CA: –	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Not expected.** There are no known historical records of occurrence in the project vicinity [1] and suitable habitat is absent from the Harris Creek and Lynch project sites.
FISH				
Monterey hitch	*Lavinia exilicauda harengus*	US: – CA: SSC	Monterey hitch are widely distributed in the Pajaro and Salinas river systems. Hitch are thought to occur in both San Antonio and Nacimiento reservoirs and in the river stretches directly below them. Monterey hitch can occupy a wide variety of habitats, although they are most abundant in lowland areas with large pools or in small reservoirs that mimic such conditions. Bottom substrates were mostly a mixture of sand and gravel and the presence of cover (e.g. fallen trees, overhanging bushes) are an important factor. Spawning takes place after high flows have subsided, typically May-June, but can extend into early August.	**Low-to-Moderate probability of occurrence.** There are no known historical records of occurrence in the project vicinity but minimal suitable habitat is present within the Harris Creek project site. No suitable habitat is present within the Lynch project site.
AMPHIBIANS				
Foothill-yellow legged frog	*Rana boylii*	US: – CA: CE	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.
Western spadefoot	*Spea hammondii*	US: – CA: SSC	Occurs primarily in grassland and other relatively open habitats. Found in elevations ranging from sea level to 4,500 ft. Requires temporary pools for breeding.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.
REPTILES				
Northern California legless lizard	*Anniella pulchra*	US: – CA: SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	**Low probability of occurrence.** There is one known historical record of occurrence (CNDDB 1999) in the project vicinity. Marginal suitable habitat is present within the undeveloped portions of the Harris Creek project sites, however the maintained nature of Lynch project site reduces the likelihood of occurrence in that area.

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Western pond turtle	*Emys marmorata*	US: – CA: SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Low probability of occurrence.** There are no known historical records of occurrence in the project vicinity but suitable habitat is present within Harris Creek project site. No suitable habitat is present within Lynch project site.
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	US: – CA: SSC	Found in chaparral and coastal scrub habitat. Rock outcrops or steep rocky roadcuts between 30 and 1,040 m in elevation.	**Low probability of occurrence.** There are no known historical records of occurrence in the project vicinity but marginal suitable habitat is present within Harris Creek project site. The maintained nature of Lynch project site reduces the likelihood of occurrence in that area.
Coast horned lizard	*Phrynosoma blainvillii*	US: – CA: SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects.	**Low probability of occurrence.** There are no known historical records of occurrence in the project vicinity but marginal suitable habitat is present within Harris Creek project site. The maintained nature of Lynch project site reduces the likelihood of occurrence in that area.
BIRDS				
Tricolored blackbird	*Agelalus tricolor*	US: – CA: CT	Occurs in open country or marshes in large colonies mainly in CA Central Valley. Breeds in freshwater marshes with tall emergent vegetation, feeds on insects.	**Not Expected.** There are no known historical records of occurrence in the project vicinity but suitable breeding habitat is absent from the Harris Creek and Lynch project site. The species may pass through the project site vicinity during migrations.
Golden eagle	*Aquila chrysaetos*	US: – CA: FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**High probability of foraging; not expected to nest.** There are no known historical records of occurrence in the project vicinity. The surrounding areas on the Harris Creek and Lynch project sites could also provide suitable foraging habitat, but lack suitable nesting habitat.
Burrowing owl	*Athene cunicularia*	US: – CA: SSC	Burrows in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent within Harris Creek and Lynch the project sites.
Ferruginous hawk	*Buteo regalis* (foraging only)	US: – CA: WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice.	**High probability of foraging.** There are no known historical records of occurrence in the project vicinity. The surrounding areas on the Harris Creek

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
			Population trends may follow lagomorph population cycles.	and Lynch project sites could also provide suitable foraging habitat.
Northern harrier	*Circus hudsonius*	US: – CA: SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**High probability of foraging; low probability of nesting.** There are no known historical records of occurrence in the project vicinity. The surrounding areas on the Harris Creek and Lynch project sites could also provide suitable foraging habitat. Suitable nesting habitat is absent from the Harris Creek and Lynch project sites.
California horned lark	*Eremophila alpestris actia*	US: – CA: WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.
Prairie falcon	*Falco mexicanus*	US: – CA: WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**High probability of foraging; low probability of nesting.** There are several record of occurrence within the project vicinity. The surrounding areas on the project sites could also provide suitable foraging habitat.
Bald eagle	*Haliaeetus leucocephalus*	US: FD CA: CE, FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**Observed flying over site; low probability of nesting.** Two bald eagles were observed within the BSA of the Harris Creek project site. Additionally, there are several record of occurrence within the project vicinity. The surrounding areas on the Harris Creek and Lynch project sites could provide suitable foraging habitat. Suitable nesting habitat is absent Lynch project site and no stick nests were observed at Harris Creek project site during the 2021 field survey.
Yellow warbler	*Setophaga petechia*	US: – CA: SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Least Bell's vireo	*Vireo bellii pusillus*	US: FE CA: CE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, and mesquite.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.
MAMMALS				
Pallid bat	*Antrozous pallidus*	US: – CA: SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites
Townsend's big-eared bat	*Corynorhinus townsendii*	US: – CA: SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low probability of occurrence. There** are no known historical records of occurrence in the project vicinity but marginal suitable habitat is present within Harris Creek project site. The maintained nature of Lynch project site reduces the likelihood of occurrence in that area.
Hoary bat	*Lasiurus cinereus*	US: – CA: CSA	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Low probability of occurrence.** There are no known historical records of occurrence in the project vicinity but marginal suitable habitat is present within Harris Creek project site. The maintained nature of Lynch project site reduces the likelihood of occurrence in that area.
Monterey dusky-footed woodrat	*Neotoma macrotis luciana*	US: – CA: SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites. No woodrat mittens were observed during the 2021 field survey.
Salinas pocket mouse	*Perognathus inornatus psammophilus*	US: – CA: SSC	Annual grassland and desert shrub communities in the Salinas Valley. Fine-textured, sandy, friable soils. Burrows for cover and nesting.	**Not expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the Harris Creek and Lynch project sites.
San Joaquin kit fox	*Vulpes macrotis mutica*	US: FE CA: CT	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**Not expected.** There is one record of occurrence in the project vicinity (CNDDB 1971) and suitable habitat is absent from the Harris Creek and Lynch project sites.

Table D-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
American badger	*Taxidea taxus*	US: – CA: SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not expected.** There are no known historical records of occurrence in the project vicinity but suitable habitat is mostly absent from the Harris Creek project site. The maintained nature of the Lynch project site reduces the likelihood of occurrence in that portion of the site.

[1]Project vicinity = Project area plus a 5 mile buffer
Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Animal (CSA), Watch List (WL)

CA = California

ft = foot/feet
m = meter/meters
mi = mile/miles
US = United States