Initial Study / Mitigated Negative Declaration

Carmel Meadows Lift Station and Sewer Replacement

CARMEL AREA WASTEWATER DISTRICT, MONTEREY COUNTY, CALIFORNIA

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1.0 BACKGROUND

1.1 Project Title: Carmel Meadows Lift Station and Sewer Replacement

1.2 Lead Agency and Project Applicant:	Carmel Area Wastewater District P.O. Box 221428 Carmel, California 93922
1.3 Contact Person and Phone Number:	Rachel Lather, MS, PE District Engineer Tel: (831) 257-3034 Email: lather@cawd.org
1.4 Project Location:	Carmel Meadows subdivision, between Carmel River and Carmel Bay, North of Ribera Road. Monterey County, California
1.5 Addresses	2795 – 2955 Ribera Road (Odd numbers only) Carmel, California 93923
1.6 Parcel Numbers	243-031-017 through 243-031-034, 243-051-001 through 243-051-008, and 243-051-020 through 243-051-022

1.7 Surrounding Land Uses and Setting

The project proponent, Carmel Area Wastewater District (CAWD), proposes the Carmel Meadows Lift Station and Sewer Replacement Project (proposed project). The proposed project is located within multiple parcels (Assessor Parcel Numbers [APNs] 243-031-017 through 243-031-034, 243-051-001 through 243-051-008, and 243-051-020 through 243-051-022) in the Carmel Meadows subdivision in Monterey County, California. The project site is on the northern edge of the Carmel Meadows Subdivision, which includes approximately 150 homes, some of which overlook the Pacific Ocean to the west while others overlook the Carmel River Lagoon to the north. The project can be accessed via Ribera Road. State Route 1 (SR 1) is located immediately east of the project. Further east are the coastal foothills of the Palo Corona Regional Park. To the south is the Carmel Meadows Trail and Monastery Beach. The project location and aerial view of the project site are shown in Figure 1 and Figure 2.

The proposed project would replace the existing sewer system serving the odd number houses located at 2795 to 2955 Ribera Road. The proposed project would replace two sections of the existing sewer pipeline within or immediately outside the backyards of nearly 20 homes along the northern edge of the Carmel Meadows Subdivision. Ornamental landscaping is in most backyards while native oak woodlands, cypress and coastal scrub are just beyond the fence line where the terrain drops from Carmel Meadows on the upper plateau to the Carmel River Valley below.

Sources: National Geographic, WRA | Prepared By: njander, 3/12/2020

Figure 1. Project Location

0 0.25 0.5 Miles

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Path: L:\Acad 2000 Files\30000\30026\GIS\ArcMap\Aerial20200326_2.mxd

Sources: USDA NAIP Imagery 2016, WRA | Prepared By: njander, 6/14/2021

Figure 2. Aerial View of Project Site

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The proposed project is located within the Carmel Land Use Plan (LUP) of the Monterey County Local Coastal Program (LCP). According to the Carmel LUP, the existing land use of the project site is Medium Density Residential. The Carmel River Valley is located downslope and north of the project site and is designated as an Agricultural Preservation Area in Carmel LUP. Closer to the Carmel River mouth and northwest of the project site, portions of the Carmel River Valley are designated as Wetlands and Coastal Strand.[1] To the west and south of the Carmel Meadows subdivision are coastal areas designated as Scenic and Natural Resource Recreation. To the east are Scenic and Watershed Conservation Lands of the Palo Corona Regional Park.

All parcels within the project site are zoned for two dwelling units per acre (MDR/2-D (18) (CZ)). This designation includes the built lots on the plateau as well as the unbuilt parcels on the sloped hillside facing the Carmel River Valley. Views of the existing project site and surrounding land uses are provided in Figure 3 through Figure 5.

1.8 Existing System

At the project site, existing sewer laterals flow downslope and northward away from the homes and properties on Ribera Road and into a 6-inch diameter vitrified clay pipe (VCP). Flow is then conveyed into a 6-inch ductile iron collector line (interceptor) located at a lower elevation (on the downward slope of the plateau) adjacent to the recently restored Carmel River Lagoon. Much of the existing sewer collector line is located above-ground; if the line were to leak or break, it could potentially contaminate areas adjacent to the estuary. Therefore, CAWD proposes to remove above-ground sections of the existing collector line adjacent to the estuary and also replace two (2) sections of the existing sewer line in the backyards of the houses. These new sewer lines will convey flow to a new sewage lift station on the plateau. The lift station would be higher up the slope, closer to the houses, and away from the Carmel River Lagoon. The project would therefore remove potential environmental risk to the estuary while upgrading the sewer facilities.

1.9 The Project Alternatives

Previous project design efforts have evaluated the concept of replacing the existing pipeline in-place, which would allow the pipeline to continue to operate in an all-gravity flow system without the need for pumping. However, the environmental impact of replacing the existing collector line in-place would be significant and unavoidable due to its proximity to the Carmel River Lagoon and the area's steep forests, which would limit site access for construction and future maintenance.

[1] *Monterey County Resource Management Agency. Map: Land Use Plan Carmel Area. March 2008.*

View from the Mariposa cul-de-sac looking west into the wooded area north of the proposed pipeline alignment.

View of the area north, behind the backyard fence of of 2925 Ribera Road, showing the transition from landscaped backyard to wooded area. This view to the west would not be disturbed as the proposed project would be within the fenced backyard.

Figure 3. Views of the Project Site (1 of 2)

View from Ribera Road through the utility access easement and across the Carmel River Valley. A small excavator and trucks would access the project work area through this passage at the end of Meadow Way. Any damage would be restored to original condition.

Looking east over the proposed project area from the access easement, the work area would be 10 to 15-feet wide below the deck in the foreground.

Figure 4. Views of the Project Site (2 of 2)

View east of Carmel Meadows subdivision overlooking Carmel River Lagoon from the beach access path just west of study area, off the Cll La Cruz cul-de-sac.

Carmel Bay is to the west of the Carmel Meadows Subdivision and to the northwest is Carmel River State Beach.

Figure 5. Views of the Surrounding Land Uses

2.0 PROJECT DESCRIPTION

2.1 Project Features

The proposed project would include the following features (Figure 6):

- Installation of a below grade sewage lift station
- Replacement of two (2) sections of existing 6-inch VCP with 8-inch-high density polyethylene (HDPE) pipe
- Installation of a new sewer
- Installation of four (4) new residential scale grinder pumps
- Rehabilitated of approximately 400 feet of exiting sewer line
- Removal of above-ground sections of the existing collector line

2.1.1 New Lift Station

A new below grade sewage lift station is proposed in the eastern portion of the project site at the end of Mariposa Drive. The sewage from the residences served by the existing system would be redirected through a new sewer to the lift station. The lift station will pump the sewage in a small pressure pipe up to Mariposa Drive and connect to an existing sewer force main on Ribera Road to the wastewater treatment plant. Located below the street surface, the lift station would draw electricity from the underground electric power in the center of Ribera Road. Minimally visible above-ground equipment would include a power control panel (approximately 4-foot-wide by 6-foot-tall) and a manhole cover (flush with pavement).

2.1.2 Sewer Line Replacement

A section of the existing 6-inch VCP, approximately 170 feet long, west of the new lift station would be replaced with new 8-inch HDPE pipe to reverse sewer flow direction. Approximately 680 feet of the existing 6-inch VCP west of the new reverse sewer flow pipe would be replaced with 8-inch HDPE pipe.

A 12-inch-wide trench would be dug with a small excavator to about three (3) feet deep (maximum depth is five [5] feet) to replace the reverse sewer flow pipe. The remaining sections of the existing 6-inch diameter sewer pipe would be up-sized to be 8-inch by a trenchless construction technique called pipe bursting to minimize disturbance to landscaping in the backyards. Impacts to residential landscaping would be avoided where possible and/or restored to pre-construction conditions. In areas where the proposed alignment is outside of a given residential parcel where native vegetation may occur, any temporarily impacted native vegetation would be restored with native seeding after construction. Erosion best management practices (BMPs), such as straw wattles and erosion blankets, would be installed on steeper slopes as needed.

2.1.3 New Sewer

A new sewer would be constructed west of the replacement sewer pipe. This new gravity sewer would be 8-inch diameter HDPE pipe and would replace the existing 6-inch VCP sewer in the

same horizontal alignment and slope. The new 8-inch sewer would collect flow from the same 10 houses on the north side of Ribera Road (house numbers 2835 through 2925) that are currently served by the 6-inch sewer. The new 8-inch HDPE sewer pipeline would be pulled into place (requiring minimal excavation) by a construction technique called pipe bursting. In this process, a hydraulically-driven machine is advanced through the existing sewer and expanded, shattering the clay pipe below ground, while simultaneously pulling the new 8-inch diameter HDPE pipe into its place.

2.1.4 New Grinder Pumps

Four (4) new residential scale grinder pumps would be installed west of the new sewer to connect the homes (house numbers 2795 through 2825) that can no longer be served by gravity. The grinder pumps would pump wastewater from the lower elevation residences to the higher elevation sewer system when gravity flow is not feasible.

2.1.5 Pipeline Rehabilitation

Approximately 350 feet of the existing 6-inch pipeline located on the western end of the project site would remain gravity fed but would be upsized by pipe bursting to an 8-inch diameter. The project would replace this section of the existing pipeline. This technique eliminates the need for trenching, though it does require equipment staging at the top and bottom of each sewer segment (between upstream and downstream manholes).

2.1.6 Existing Pipeline Removal

The existing collector pipe runs in alternating underground and above-ground segments. The above-ground sections of pipe rest on stilt supports of varying heights, between approximately two (2) and thirty (30) feet above existing grade, depending on topography. The proposed project would remove all above-ground and exposed sections of pipe at ground level. The proposed project would replace only the backyard sections of existing pipelines located between the new sewer and lift station (Figure 6) and would remove the above-ground sections of the existing pipeline (Figure 7). All other existing underground sections of the sewer system would be abandoned in place and manholes and other large voids would be capped with mortar or filled with sand. Vegetation removal would not be required during removal of the above-ground pipeline.

Side slopes near the existing collector pipe are relatively steep. Removing the existing above-ground pipeline would utilize two (2) means of access. One access is an existing footpath located along the majority pipeline with ingress near the staging area located at the Mariposa Drive (Figure 7). The footpath would provide small equipment and pedestrian access. The second access is a dirt road with ingress at the end of the Calle La Cruz cul-de-sac (Figure 7). The dirt road would allow limited equipment and vehicle access. BMPs for existing above-ground pipeline removal would include installation of silt fencing to contain sediment near the trail and to temporarily exclude small animals entering the project site.

Source: SRT Consultants, 2019

Figure 6. Project Features

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Sources: Vivid 2019 Aerial, WRA | Prepared By: njander, 2/11/2021

Figure 7. Existing Pipeline Removal and Access

0 200 400 Feet

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2.2 Construction

2.2.1 Schedule and Equipment

Construction of the proposed project would last approximately six (6) weeks. Construction may require a combination of pick-up trucks, a small excavator or backhoe, small dump trucks, a skip loader, truck-mounted pipe-bursting equipment, a boom truck, wheel barrels, and possibly pneumatic hammers[2].

2.2.2 Staging and Access

CAWD has identified off-site District properties that could be used as staging areas. These locations would provide proximate staging for work related to the proposed lift-station with nearby access to the pipeline alignments. The specifications for this staging area would include, at minimum, the following requirements:

- The staging area would be included in the contractor's Stormwater Pollution Prevention Plan (SWPPP).
- The staging area would not be located in an environmentally or culturally sensitive area and/or impact water resources (rivers, streams, bays, inlet, lakes, drainage sloughs).
- The staging area would not be located in a regulatory floodway or within the base floodplain (100-year).
- The staging area would not affect access to properties or roadways.

Access to the proposed pipeline alignments would be via Mariposa Drive on the east, and further west through a utility easement between 2845 and 2855 Ribera Road, at the end of Meadow Way.

2.2.3 Utilities Connection

The proposed project would improve the reliability and operation of the existing sewer system by replacing the old sewer line which is currently a potential source of environmental contamination if a leak were to occur. Construction of the project requires a connection to underground power in the center of Ribera Road. A utility trench from the lift station at the end of Mariposa Drive would lead to the center of Ribera Road.

Improvements would be made within the existing utility right-of-way at the north end of each lot. Shallow trenches would be dug along the center of Mariposa Drive up to Ribera Road to install the new sewer force main and Pacific Gas & Electric's electrical power conduits to the new lift station.

Portable toilets would be transported to the project site for use by workers during construction. The portable toilet waste generated during the construction period would be trucked to CAWD's wastewater treatment plant.

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[2] An air hammer, also known as an air chisel, is a pneumatic hand tool used to carve in stone, and to break or cut metal objects apart.

2.2.4 Grading Areas and Volume

The proposed project sewer line work would be approximately 1,600 feet long. All but 170 feet of the existing sewer would be upsized in place from 6-inch to 8-inch by pipe bursting. For the 170-foot-long segment of open trench excavation, the disturbance area would be approximately 12 feet wide, for a total disturbance area of approximately 2,000 square feet. Trenches would be approximately 3 feet wide by 3 to 5 feet deep.

The total footprint of all permanent and temporary impacts from the grinder pumps, new sewer, sewer line replacement, and lift station, as well as construction access and staging, is approximately 7,000 square feet.

2.2.5 Parking

The proposed project would not add nor eliminate parking in the area. There is ample residential parking available in this neighborhood. Construction vehicles would park near the staging area at Mariposa Drive and near the utility easement at the end of Meadow Way.

2.2.6 Traffic

Very limited traffic interference is expected since the project is located in a residential neighborhood and the utilities connection is the only project activity that would require work within the street. Limited traffic control would conform to the most recent California Manual on Uniform Traffic Control Devices (CAMUTCD) Revision 6 (March 30, 2021), as well as County standard specifications. The contractor would install advance warning signs to alert cars, pedestrians, and bicyclists of the work zone. Advance warning signs may be reflective signs, changeable message boards, cones, and/or barricades. The work would be limited to 8:00 A.M. to 5:00 P.M., Monday through Friday, unless otherwise approved in writing by CAWD General Manager.

2.2.7 Tree Removal

The project would not require tree removal. Tree trimming would be limited to the minimum degree possible.

2.3 Operation

2.3.1 Pipeline Capacity

The proposed project would not result in an expansion of sewer capacity. The new sewer system would serve the same residential properties in the Carmel Meadows neighborhood that are currently served by the existing system.

2.3.2 Connection to Existing Sewer System

The existing 6-inch VCP gravity sewer lines on the west side of the project would be upsized to 8-inch diameter HDPE lines and their connection to the existing collection system would remain the same. Four (4) houses on Ribera Road would be converted from gravity sewer service to residential ejector pump stations that would discharge into a newly upsized 8-inch gravity sewer that would convey the rest of the flow to the new lift station on Mariposa Drive. From here, flow

would be pumped up to CAWD's existing force main on Ribera Road and eventually to the existing wastewater treatment plant.

2.4 Best Management Practices

At least one week prior to the commencement of work, the contractor would provide project information signs to notify drivers of the upcoming project and potential traffic delays. Additionally, Monterey County or its contractor would notify and coordinate with law enforcement and emergency service providers prior to the start of construction to ensure minimal disruption to service during construction.

The Monterey Bay Air Resources District (MBARD) recommends basic construction measures to ensure minimal impacts on regional air quality. The contractor would be responsible for implementing the following BMPs during construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas) would be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site would be covered.
- All visible mud or dirt track-out onto adjacent public roads would be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
- Clear signage would be provided for construction workers at all access points.
- All construction equipment would be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment would be checked by a certified visible emissions evaluator.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints would be posted in or near the project site. The contact person would respond to complaints and take corrective action within 48 hours. MBARD's phone number would also be visible to ensure compliance with applicable regulations.

2.5 Other Public Agencies Whose Approval May Be Required:

The information contained in this Initial Study will be used by CAWD (Lead Agency for the California Environmental Quality Act [CEQA]) as it considers whether to approve the proposed project. If the project is approved, the Initial Study, as well as the associated Mitigated Negative Declaration (MND) would be used by CAWD and responsible and trustee agencies in conjunction with various approvals and permits. These actions include, but may not be limited to, the following approvals by the agencies indicated:

- Waste Discharge Agreement, Regional Water Quality Control Board (RWQCB)
- Coastal Development Permit, Monterey County/California Coastal Commission
- Encroachment Permit, California Department of Transportation

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

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

Determination:

On the basis of this initial evaluation:

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

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

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

Signature: _____ **Date:** _____

Name/Title: Rachel Lather, MS, PE, District Engineer**,** Carmel Area Wastewater District

4.0 INITIAL STUDY CHECKLIST

This section describes the existing environmental conditions in and near the project site and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impacts to the resource would occur as a result of implementing the project.
- **"Less than Significant Impact"** means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.
- **"Less than Significant with Mitigation Incorporated"** means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.
- **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

4.1 Aesthetics

	AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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 publicly accessible vantage points). 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?	☐	☐	☐	☒

4.1.1 Environmental Setting

The proposed project is just to the west of SR 1, an officially designated State Scenic Highway, sometimes referred to as the Big Sur Coast Highway. The closest access to SR 1 is about 0.3 mile southeast of the project site. Motorists are not able to view the project site, as public views from SR 1 and from any other major roads are blocked by residential housing and existing vegetation on the Carmel River bluff.

The proposed project is located in the backyards of nearly 20 homes overlooking the Carmel River in the Carmel Meadows Subdivision, just south of the City of Carmel-by-the-Sea, in unincorporated Monterey County. The 20 homes are along the north side of Ribera Road from 2795 Ribera Road on the west end to 2935 Ribera Road, including the Mariposa Drive on the eastern end. Ornamental landscaping is in most backyards. Native oak woodlands, cypress and coastal scrub are just beyond the fence line as the terrain drops from the upper plateau, where Carmel Meadows is located, into the Carmel River Valley below.

Scenic vistas typically include distant all-encompassing views. In coastal California, scenic vistas often include the ocean, coastal bluffs, mountains, valleys and ridgelines. Some scenic vistas are directly accessible from SR 1 for example, while others are remote and only accessible by foot or

bicycle. Carmel Meadows has numerous scenic vistas of Carmel Bay and overlooking the Carmel River. The project does not affect any opportunity to view available scenic vistas from Carmel Meadows nor does the project affect any available views of the Carmel Meadows subdivision.

4.1.2 Regulatory Setting

2010 Monterey County General Plan

GOAL OS-1 – Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations.

4.1.3 Discussion of Impacts

a, b) ***No Impact.*** The nearest officially designated scenic highway is SR 1, approximately 0.3 mile east of the project site. The project site is not visible from SR 1 nor from the Carmel River and therefore would not impact any scenic vistas. There are no other State or locally designated scenic highways, roads or corridors within view of the project site. The project would not remove trees, rock outcroppings, or historic buildings within a State scenic highway corridor, nor would the project impact existing views within a scenic highway corridor. The project site is designated as visually "Sensitive" in the 2010 Monterey County General Plan.[3] However, most of the project features would be subsurface, and not visible from any local views. The existing pipeline runs alternately in underground and above-ground segments. All above-ground and exposed sections of pipe would be removed from the site at ground level. All sections that remain buried would be abandoned in place. Vegetation removal would not be required. Although project staging and construction would temporarily alter the visual quality of the area, in the longer term, removal of the above-ground pipelines would improve public views of the Carmel River by eliminating a man-made visual element from the otherwise natural views. The proposed project would be closer to the houses it serves, and out of view from the Carmel River and SR 1. Since the proposed project is not located within a designated scenic vista, no impact would occur to a scenic vista. There would be no impacts on scenic resources located within view of a State scenic highway.

c) ***Less than Significant Impact.*** Temporary visual impacts would result from construction vehicles, ground disturbance, and landscape restoration work during the approximate six-week construction period. The permanent visual effect of the project would be consistent with the existing conditions of the site as the new underground sewer would replace the existing above-ground pipeline. The proposed project would not block any of

[3] *Monterey County General Plan. 2010. Figure 14, Scenic Highway Corridors and Visual Sensitivity Map, January 26, 2010. Available at: https://www.co.monterey.ca.us/Home/ShowDocument?id=45866 Accessed on July 2, 2021.*

the County-designated scenic resources nor viewsheds as described in the 2010 Monterey County General Plan[4] and therefore impacts would be less than significant.

d) ***No Impact.*** Construction of the proposed project would not create a significant source of light or glare during daytime or nighttime. The long-term operation of the project would not result in the addition of new sources of light and glare. Upon completion of construction, the light and glare conditions at the project site would be identical to existing conditions. The proposed project would not create a new source of substantial light or glare which adversely would affect day or nighttime views in the area. No impacts would occur.

[4] *Monterey County General Plan. Adopted October 26, 2010. Chapter 3.0-Conservation and Open Space Element.*

4.2 Agricultural and Forestry Resources

	AGRICULTURAL AND FORESTRY RESOURCES — (Farmland Mapping and Monitoring Program Website) 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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?	☐	☐	☐	☒

	AGRICULTURAL AND FORESTRY RESOURCES — (Farmland Mapping and Monitoring Program Website) 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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??	☐	☐	☐	☒

4.2.1 Environmental Setting

Under the Department of Conservation, the Division of Land Resource Protection (DLRP) serves as the state's leader in conserving California's agricultural lands. The Farmland Mapping and Monitoring Program (FMMP), administered by the DLRP, designates the proposed project site as "Urban and Built-Up Land."[5] Therefore, the proposed project does not contain any farmland or forestry land and is not designated for agricultural or forestry uses or Prime, Statewide, or Locally Important Farmland. The proposed project site is located in a residential area, zoned for Medium Density Residential.

[5] *California Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Monterey County Important Farmland 2016. Available at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Monterey.aspx>, Accessed June 25, 2021*

4.2.2 Discussion of Impacts

a-e) ***No Impact.*** There are no agricultural or forestry resources within the project site. There are no Prime, Unique, Statewide or Locally Important farmlands in the area. The project site is not under a Williamson Act Contract, nor is the project zoned as forest land or timber production. The project would be consistent with the existing conditions of the site as the new underground pipeline would replace the existing above-ground pipeline near the Carmel River. The project would not affect forest land or forest zoning because no such lands or zoning exist or are proposed on the site. The proposed project would not convert farmland and would not change agricultural resources to nonagricultural, and land within the project site is not designated as prime farmland, unique farmland, or farmland of statewide importance, therefore, no impacts to agricultural or forestry resources would occur.

4.3 Air Quality

	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. Would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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 in 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) affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Environmental Setting

The project site is located within the North Central Coast Air Basin (NCCAB), which includes Monterey, San Benito, and Santa Cruz counties. The NCAAB includes an area of approximately 5,159 square miles along the central coast of California. The project site is located near the coast in the central portion of the NCCAB's jurisdiction. MBARD is responsible for local control and monitoring of criteria air pollutants throughout the NCCAB.[6]

The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for criteria pollutants that have been linked to potential health concerns, including carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matters (PM_{10} and $PM_{2.5}$)[7], sulfur dioxide (SO_2), and lead (Pb). The State standards, CAAQS, are equivalent to or more stringent than the federal standards, NAAQS. The NCCAB is classified as a non-attainment area under the CAAQS for O_3 and PM_{10}. The NCCAB is designated as attainment under CAAQS for $PM_{2.5}$, CO, NO_2, SO_2, and Pb.[8]

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[6] *Monterey Bay Air Resources District. Air Quality and Planning. Website: https://www.mbard.org/air-quality-and-planning. Accessed January 12, 2022.*

[7] *PM_{10} are particles of 10 micrometers or smaller. $PM_{2.5}$ are particles of 2.5 micrometers and smaller.*

[8] *Monterey Bay Air Resources District. 2012-2015 Air Quality Management Plan. Adopted by District Board of Directors March 15, 2017. Available at: https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf. Accessed July 19, 2021.*

Air pollution is generated by anything that burns fuel (including but not limited to cars and trucks, construction equipment, backup generators, boilers and hot water heaters, barbeques, gas-fired cooking ranges and ovens, fireplaces, and wood-burning stoves), almost any evaporative emissions (including the evaporation of gasoline from service stations and vehicles, emissions from food as it is cooked, emissions from paints, cleaning solvents, and adhesives, etc.), and other processes (such as fugitive dust generated from roadways and construction activities).

A sensitive receptor is generally defined as the segment of population most susceptible to air quality effects including children, seniors, and sick persons, as well as land uses such as schools, hospitals, parks, and residential communities. Sensitive receptors to the project site include residences located along the project alignment. No hospitals or schools within the Carmel Meadows subdivision.

4.3.2 Discussion of Impacts

a) ***Less than Significant Impact.*** Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction, including existing pipeline removal, would produce fugitive dust (PM_{10} and $PM_{2.5}$) during ground disturbance and would generate carbon monoxide, ozone precursors, and other emissions from vehicle and equipment operation.

BMPs, identified above in Section 2.02.0 Project Description, would be implemented during construction to minimize fugitive dust. Lift station construction and pipeline installation would mainly take place within an existing developed footprint. Construction emissions would be temporary, lasting approximately six weeks, and would not have long-term effects on air quality. Because of the small area of disturbance, temporary nature of the emissions, and implementation of BMPs during construction, impacts on air quality would be less than significant and would comply with the MBARD Air Quality Management Plan.

b) ***Less than Significant Impact.*** As discussed under item a), the project would result in minor construction-related emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant. The project would cause short-term air quality impacts as a result of construction activities; however, it would not result in long-term or cumulatively considerable increases in air quality pollutant emissions for which the NCCAB is currently a non-attainment area (O_3 and PM_{10}). The limited extent of construction and implementation of BMPs would ensure that the temporary increase in air pollutant emissions associated with construction activities would result in less than significant contributions to cumulative pollutant levels in the region.

c) ***Less than Significant Impact.*** The primary sensitive receptors in the vicinity are residents, which may include children, elderly people, or people with respiratory illnesses that live in homes next to the proposed pipeline trenching. Sensitive receptors would be exposed to limited temporary increases in air pollutants from construction activities,

including fugitive dust, ozone precursors, and CO. The duration of construction activities outside any particular home would be limited to a few days. BMPs would be implemented during construction to minimize impacts from fugitive dust. New construction equipment has been subject to increasingly stringent emissions requirements at the Federal level (e.g., 40 CFR 89 and 1039), designated “Tier 1”, “Tier 2”, “Tier 3”, etc.; older construction equipment is subject to potential retrofit requirements required by the State of California (13 California Code of Regulations [CCR] 2449, 13 CCR 2450-2466, and 17 CCR 93116). As a result, sensitive receptors in the vicinity of the project would not be exposed to substantial pollutant concentrations, and impacts would be less than significant.

d) ***Less than Significant Impact.*** Construction activities would involve the use of gasoline- or diesel-powered equipment that emits exhaust fumes. These activities would take place intermittently throughout the workday and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable; however, the proposed project would not include uses that have been identified as potential sources of objectionable odors, such as restaurants, manufacturing plants, landfills, and agricultural and industrial operations. The infrequency of the emissions, rapid dissipation of the exhaust and other odors into the air, and short-term nature of the construction activities would result in less than significant odor impacts.

4.4 Biological Resources

	BIOLOGICAL RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 Game 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, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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 project site is located within multiple parcels (APNs 243-031-017 through 243-031-034, 243-051-001 through 243-051-008, and 243-051-020 through243-051-022) in the Carmel Meadows subdivision in Monterey County, California. The project site is located mainly within coast live oak woodlands between a residential neighborhood and the Carmel River. The Pacific Ocean is approximately 0.25 mile west of the project site.

The following analysis of biological resources is based on site assessments performed by WRA, Inc. (WRA) on April 8, 2020, and February 9, 2021.

4.4.1 Environmental Setting

Biological Communities in the Project Site

WRA biologists conducted site assessments on April 8, 2020, and February 9, 2021 (see Appendix A for a list of observed or documented plant species within or near the project site). Non-sensitive biological communities in the project site include Monterey cypress stands, coast live oak woodland, poison oak scrub, ice plant mats, developed, and landscaped/ornamental areas. One sensitive biological community occurs in the project site: coastal brambles. Figure 4 of Appendix A illustrates the extent of each biological community in the project site.

Two stands of large Monterey cypress (*Hesperocyparis macrocarpa*) were observed within the project site. These stands are relatively narrow and located between residences within the Carmel Meadows neighborhood. The understory is sparse in these stands and contains patches of bare ground, ripgut brome (*Bromus diandrus*), and ornamental plant species. Coast live oak woodland was observed in a large, continuous band throughout the majority of the project site. The coast live oak woodland is located on the steep, north-facing slope between the Carmel River Lagoon and the landscaped backyards of Carmel Meadows. In the center of the project site, coast live oak woodland directly abuts backyard fences. Coast live oaks (*Quercus agrifolia*) are the sole dominants within this community with no other tree species observed. The understory largely consists of ripgut brome and bare ground, although patches of California blackberry (*Rubus ursinus*), coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*) are also present within the coast live oak woodland.

Poison oak scrub was observed exclusively in the western portion of the project site on a steep, north-facing slope. This community is predominantly comprised of poison oak, with a few scattered coyote brush, English ivy (*Hedera helix*), and California blackberry. Iceplant mats were observed in multiple patches throughout the project site between coast live oak woodland and houses where the iceplant (*Carpobrotus edulis*) had overtaken landscaping. The proposed staging area is also completely covered with iceplant mats.

Developed land cover in the project site includes residences, pavement in backyards, the dirt access road at the western terminus of Mariposa Drive, and a small portion of Ribera Road. Landscaped/ornamental land cover in the project site is composed mainly of maintained gardens and landscaping consisting of non-native vegetation in backyards along the length of the project.

In addition, the access path in the center of the project site is comprised of a manicured turf that is also considered landscaped.

Coastal brambles within the project site occurs in several patches on the border between coast live oak woodlands and the landscaped backyards of the residences. Coastal brambles observed within the project site are areas dominated by California blackberry. Coastal brambles have a State rank of S3 and are considered a sensitive biological community by CDFW.

Special-Status Species in the Project Site

Special-Status Plant Species

Of the 75 special-status plant species documented in the vicinity of the project site through CNDDB searches, all are unlikely or have no potential to occur in the project site due to lack of suitable habitat (see Appendix A).

Special-Status Wildlife Species

Of the 32 special-status species, 30 are considered unlikely or have no potential to occur in the project site (see Appendix A). Species are considered unlikely or have no potential to occur due to lack of suitable habitat or, in some cases, the distance of the project site from documented occurrences. Two special-status wildlife species discussed below have potential to occur within the project site.

California red-legged frog (CRLF; Rana draytonii).

CRLF is federally threatened species and CDFW species of special concern. CRLF is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, CRLF disperse from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. CRLF estivates (period of inactivity) during the dry months. Upland habitats include areas within 300 feet of aquatic and riparian habitat and that are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. These upland features provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter.[9]

CRLF has been documented in the immediate vicinity of the project site. According to CNDDB, three or more individuals were detected at three sites “between Ribera Road at Calle la Cruz Road and the Water Treatment Plant” in March of 2001. This occurrence also notes that CRLF

[9] *U.S. Fish and Wildlife Service. 2010. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for California Red-legged Frog; Final Rule. Federal Register, Vol. 75, No. 51. 12815-12959.*

were observed “throughout (the) south feature” in 2000.[10] In addition, Palo Corona Regional Park is periodically surveyed for CRLF. From 2013 to 2016, larvae and as many as 15 adult CRLF were detected in Entrance Pond within the park, approximately 1,400 feet northeast of the project site.[11] The Carmel River Lagoon also represents breeding habitat for CRLF.[12]

No CRLF breeding aquatic habitat was observed within the project site. However, the south reach of the Carmel River Lagoon located northwest of the project site represents suitable breeding habitat for CRLF. A large portion of the project site contains coast live oak woodland with leaf litter, which represents suitable upland refuge habitat for CRLF. Limited small mammal burrows were present within the project site. No CRLF were observed on-site during the field visits on April 8, 2020, and February 9, 2021.

Hoary bat (Lasiurus cinereus), WBWG Medium Priority.

Hoary bats are highly associated with forested habitats in the western United States, particularly in the Pacific Northwest. They are a solitary species and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches, usually at the edge of a clearing. Roosts are typically 10 to 30 feet above the ground. Hoary bats have also been documented roosting in caves, beneath rock ledges, in woodpecker holes, in grey squirrel nests, under driftwood, and clinging to the side of buildings, though this behavior is not typical. Hoary bats are thought to be highly migratory; however, wintering sites and migratory routes have not been well documented.

The project site contains many medium or large coast live oak trees with dense foliage suitable for hoary bat roosting. In addition, the large Monterey cypress trees within the alignment of the new pipeline may also provide roosting habitat. The nearby Carmel River may also support abundant prey for hoary bats. No hoary bats were observed during the field visits on April 8, 2020, and February 9, 2021.

Critical Habitat

The entire project site is located within critical habitat unit MNT-2: Carmel River for CRLF as designated by the USFWS (75 FR 12815-12959). MNT-2 includes the breeding and non-breeding aquatic and riparian habitat within the Carmel River and Carmel River Lagoon, as well as the riparian, upland, and dispersal habitat surrounding the Carmel River (Appendix A, Figure 5). However, developed land associated with the Carmel Meadows residential neighborhood represents a significant barrier to CRLF dispersal.

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[10] *California Department of Fish and Wildlife. 2021. California Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento. Accessed: May 2021.*

[11] *Anderson, R. 2016. Report for Amphibian Management and Monitoring at Palo Corona Regional Park, Garland Ranch Regional Park, and Frog Pond Wetland Preserve, Monterey County, CA. University of California, Davis. Department of Entomology/Ecology Graduate Group.*

[12] *[DD&A] Denise Duffy & Associates. 2016. Biological Assessment for the Carmel River Floodplain Restoration and Environmental Enhancement Project.*

Protected Trees

On December 9 and 10, 2021, a WRA arborist conducted an arborist survey of the proposed project site. Global Position System locations for all the protected trees[13] surveyed within the project area and information regarding the species, size in diameter at two (2) feet above grade, estimated crown radius, estimated height, health, condition, and structure ratings were collected and are included in the Arborist Report prepared for the proposed project (refer to Appendix B). Ninety-eight (98) protected coast live oak trees (*Quercus agrifolia*) were identified and assessed in the project area (refer to Figure 8). Protected trees are all coast live oaks ranging in size from 6.35 inches to 46.6 inches diameter at two (2) feet above grade.

The condition, health, and structure of trees inventoried during the assessment ranged from poor to good, with most trees ranking good in health, structure, and general condition. Four trees were found to be suppressed and were therefore ranked as being in fair condition. Eleven trees were found to have minor dieback and were therefore ranked as being in fair general health. One (1) Tree was found to have major decay and dieback was therefore ranked as being in poor health and condition. Five (5) trees were found to have poor growth form or a significant lean and were therefore ranked in fair health and condition. No trees are proposed to be removed as part of the project.

[13] The Monterey Tree Ordinance designated "protected trees" as all oak trees that are six inches in diameter or more at two feet above-ground level. Landmark trees are also protected under the Tree Ordinance and are defined as oak trees that are 24 inches or more in diameter at two feet above-ground.

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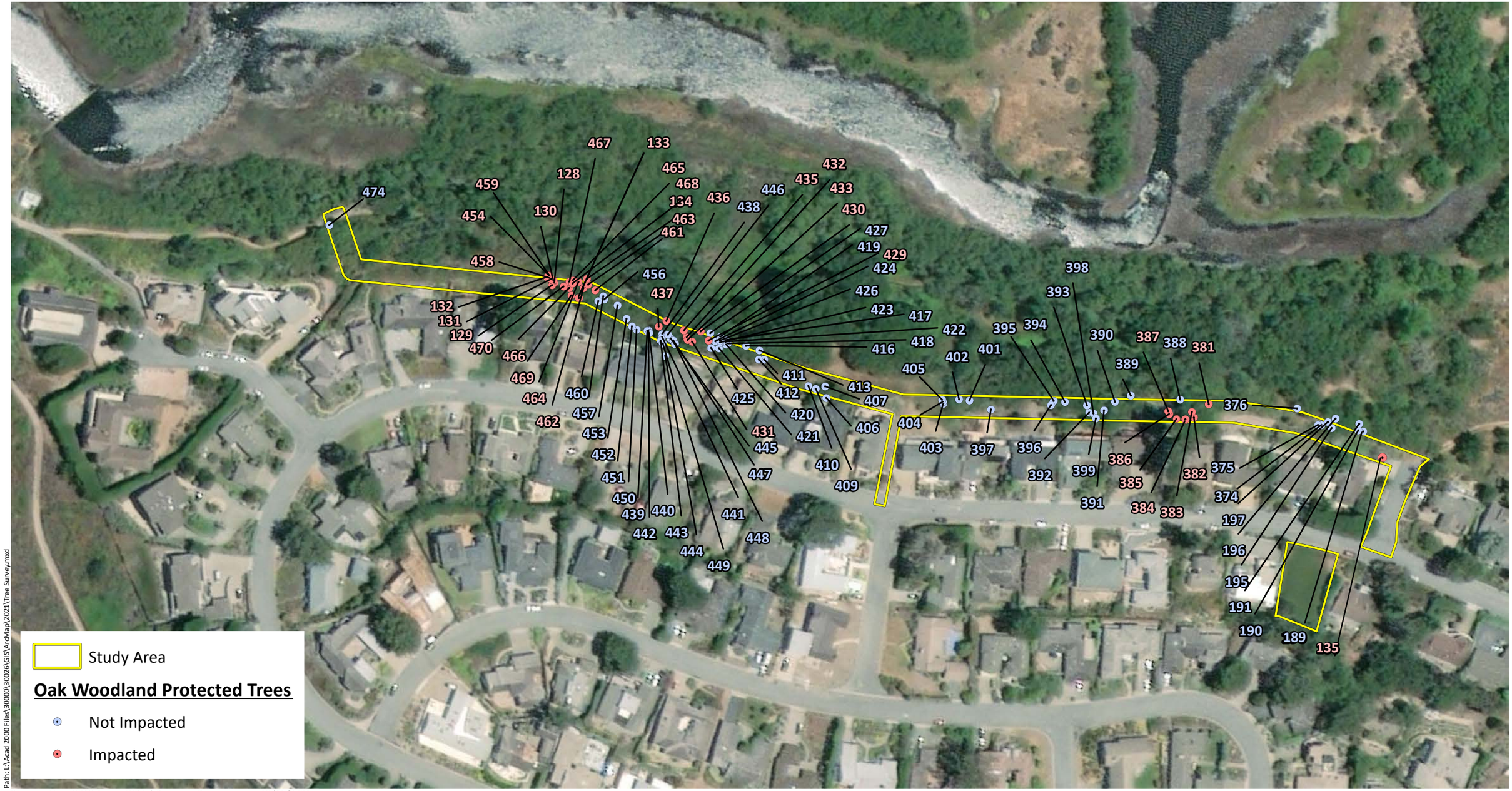

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Sources: Vivid 2019 Aerial, WRA | Prepared By: mrochelle, 12/16/2021

Figure 8. Oak Woodland Protected Trees

0 200 400 Feet

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4.4.2 Regulatory Setting

Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations, including the Clean Water Act (CWA). State regulations that protect these habitats include the Porter-Cologne Water Quality Control Act, California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Program, the California Coastal Act, and CEQA. Local ordinances and policies that provide protections to these habitats include County tree ordinances, Special Habitat Management Areas, and Monterey County General Plan elements.

Waters of the United States

Areas meeting the regulatory definition of "Waters of the United States" (Waters of U.S.) are subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) under provisions of Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual*, are identified by the presence of: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.[14] Areas that are inundated at a sufficient depth and for a sufficient duration to suppress growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" (i.e., non-wetland waters) and are often characterized by an ordinary high water mark (OHWM). Other waters generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S. generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State

The Central Coast Regional Water Quality Control Board (RWQCB) has primary authority for implementing Section 401 of the federal CWA and California's Porter-Cologne Water Quality Control Act, which pertains to Waters of the State of California (Waters of State). These statues regulate water quality conditions by establishing processes for developing and implementing planning, permitting, and enforcement authority for waste discharges to land and water. The Central Coastal Basin Water Quality Control Plan (Basin Plan) establishes beneficial uses for surface water and groundwater resources and sets regulatory water quality objectives that are

[14] *Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.*

designed to protect those beneficial uses.[15]

Under the current Basin Plan, designated beneficial uses for Carmel River includes municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, water contact recreation, non-contact water recreation, wildlife habitat, cold fresh water habitat, warm fresh water habitat, migration of aquatic organisms, spawning, reproduction, and/or early development, preservation of biological habitats of special significance, rare, threatened, or endangered species, fresh water replenishment, commercial and sport fishing.[16] The Basin Plan provides a program of actions designed to preserve and enhance water quality and to protect beneficial uses. It meets the requirements of the United States Environmental Protection Agency (U.S. EPA) and establishes conditions related to discharges that must be met at all times. The implementation portion of the Basin Plan includes descriptions of specific actions to be taken by local public entities and industries to comply with the Basin Plan's policies and objectives. These actions include measures for urban runoff management and wetland protection.

Sensitive Biological Communities

Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream," which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (CCR 2019). The term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.[17] Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself".[18] Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

CDFW also ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) methodology. Alliances ranked globally (G) or statewide (S) as 1 through 3 are considered sensitive. Impacts to sensitive natural

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[15] California Water Boards. Water Quality Control Plan for the Central Coastal Basin (Basin Plan). Website: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/. Accessed January 13, 2022.

[16] Central Coast Regional Water Quality Control Board. June 2019. Water Quality Control Plan fro the Central Coastal Basin.

[17] California Department of Fish and Game. 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code. Environmental Services Division, Sacramento, CA.

[18] Ibid

communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G).

Special-Status Species

Special-status species include plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that in some regards are similar to those provided by ESA. In addition, CDFW has developed a list of Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity. Bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status and also considered under CEQA. In addition to regulations for special-status species, most native birds in the United States (including non-status species) have baseline legal protections under the Migratory Bird Treaty Act of 1918 and California Fish and Game Code, i.e., sections 3503, 3503.5 and 3513. (CFGC; Sections 3503, 3503.5, and 3513), and guidance for protection is provided by the federal Migratory Bird Treaty Act of 1918 (MBTA). Under the CFGC, destroying active nests, eggs, or young is illegal.

Plant species listed on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Ranks) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are afforded little or no protection under CEQA but are included in this analysis for completeness. A description of the CNPS Ranks is provided below in Table 1.

Table 1 Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - a review list
Rank 4	Plants of limited distribution - a watch list

Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined in the ESA as a specific and designated geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that activities or projects they authorize do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species, but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

4.4.3 Relevant Local Policies, Ordinances, Regulations

California Coastal Commission Environmentally Sensitive Habitat Areas

On land, the California Coastal Zone varies in width from several hundred feet in highly urbanized areas up to 5 miles in certain rural areas. Offshore, the coastal zone includes a 3-mile-wide band of ocean. Within the California Coastal Zone, an "environmentally sensitive area" is defined by the California Coastal Act as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5). The California Coastal Commission (CCC) regulates the diking, filling, or dredging of wetlands, which qualify as Environmentally Sensitive Habitat Areas (ESHAs), within the California Coastal Zone. Section 30121 of the California Coastal Act defines "wetlands" as "lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The CCC considers this definition as requiring the observation of one diagnostic feature of a wetland, such as wetland hydrology, dominance by wetland vegetation (i.e., hydrophytes), or presence of hydric soils, as a basis for asserting jurisdiction under the California Coastal Act. In addition to the above definition, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* provides technical criteria for use in identifying and delineating wetlands and other environmentally sensitive habitat areas

within the Coastal Zone.[19] The technical criteria presented in the guidelines are based on the California Coastal Act definition and indicate that wetland hydrology is the most important parameter for determining a wetland. If a project proposes to develop or grade areas within the California Coastal Zone, a Coastal Development Permit (CDP) is typically required from the CCC.

Monterey County Local Coastal Program

LCPs are planning tools created and implemented by coastal cities and counties in conjunction with and approved by the CCC. LCPs create the regulatory framework for future development and protection of coastal resources.

The LCP for Monterey County, the *Monterey County Coastal Implementation Plan*, divides all portions of Monterey County in the California Coastal Zone into four LUP Areas: North County, Big Sur, Carmel, and Del Monte.[20] The project falls within the Carmel LUP Area. Table 2 details the policy measures and recommendations that relate to natural resources and are pertinent to the project.

Table 2 Relevant Monterey County LCP Policies

Policy	Pertinent Language
General Policy 1	• Limit development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures within critical and sensitive habitat areas, riparian corridors, wetlands, sites of known rare and endangered species of plants and animals, rookeries and major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as critical • only small-scale development necessary to support the resource-dependent uses may be located in sensitive habitat areas if they cannot feasibly be located elsewhere
General Policy 2	• Land uses adjacent to locations of environmentally sensitive habitats that are compatible with the long-term maintenance of the resource • New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts and where they do not

[19] *California Coastal Commission, 1981. Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas*

[20] *County of Monterey. 2003. Draft Findings of the Monterey County LCP Periodic Review*.

Policy	Pertinent Language
	establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.
General Policy 5	• "Where private or public development is proposed in documented or expected locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. I - field surveys by qualified individuals or agency shall be required in order to determine precise locations of the habitat and to recommend mitigating measures to ensure its protection. This policy applies to the entire segment except the internal portions of Carmel Woods, Hatton Fields, Carmel Point (Night heron site excluded), Odello, Carmel Meadows, and Carmel Riviera. If any habitats are found on the site or within 100 feet from the site, the required survey shall document how the proposed development complies with all the applicable habitat policies
Riparian Corridors and Other Terrestrial Wildlife Habitats Policy 1	• Riparian plant communities shall be protected by establishing setbacks consisting of a 150-foot open space buffer zone on each side of the bank of perennial streams and 50 feet on each side of the bank of intermittent streams, or the extent of riparian vegetation, whichever is greater. No new development, including structural flood control projects, shall be allowed within the riparian corridor.
Wetlands and Marine Habitat Policy 1	• Requires a setback of 100 feet from the edge of all coastal wetlands shall be provided and maintained in open space use. No new development shall be allowed in this setback area.

Monterey County Tree Ordinance

The Monterey County Oak Protection Ordinance (Tree Ordinance) is designed to preserve and protect native trees on private or County-owned property. The Tree Ordinance requires permission from the County Planning Department for the removal of trees designated as "protected trees". Under the Tree Ordinance, protected trees include all oak trees that are six inches in diameter or more at two feet above-ground level. Landmark trees are also protected under the Tree Ordinance and are defined as oak trees that are 24 inches or more in diameter at two feet above-ground. No person shall do, cause, aid, abet, suffer, or furnish equipment or labor to remove, cut down, or trim more than one-third of the green foliage of any protected or landmark tree without the obtainment of a tree removal permit.

A tree assessment from a County-approved arborist or forester is required for all projects that require the removal of protected trees. The removal of three or more protected trees per lot may also require a use permit or coastal development permit through the CCC.

4.4.4 Discussion of Impacts

a) ***Less than Significant with Mitigation Incorporated.*** No federal or State listed plants, special-status plants, or California Rare Plant Rank 1 or 2 plants were observed within the project site or have a moderate or high potential to occur within the project site. Therefore, no impacts to special-status plant species would occur from implementation of the project.

California red-legged frog

The Carmel River Lagoon provides suitable breeding habitat for CRLF. Given the proximity the project site to this suitable breeding habitat, the project site represents suitable upland migration and refuge habitat for CRLF. CRLF could be harassed, harmed, or killed during project activities, including vegetation removal and ground disturbance; however, avoidance and minimization measures would be implemented to prevent any potential take of CRLF. The project may result in a temporary loss in upland refuge habitat throughout the project site. However, all temporary impacts would be revegetated according to the Revegetation Plan (see Mitigation Measure BIO-13). Mitigation Measure BIO-1 through BIO-10 would ensure that impacts to CRLF remain less than significant with mitigation incorporated.

Mitigation Measure BIO-1 – Workers Environmental Awareness Training:

Contractors and employees working on the project will attend a Worker Environmental Awareness Training Program (WEAP) prior to beginning work at the site. The WEAP will consist of a brief presentation by a USFWS-approved biologist, which may be given either in-person or via an automated PowerPoint presentation. The program will include a description of visual identification of any special-status species and required habitat, an explanation of the status of these species and their protection, consequences of non-compliance, and a description of the project-specific measures being taken to reduce effects to these species. Documentation of the training (i.e., a sign-in sheet) will be retained at the site and will be submitted with applicable reports.

Mitigation Measure BIO-2 – Preconstruction Surveys and Construction Monitoring:

Within 48 hours prior to any construction activities, a USFWS-approved biologist will conduct surveys for CRLF in and adjacent to the project site. In addition, a qualified biologist will be on-site during ground-disturbing activities, including fence installation and the operation of heavy equipment (e.g., during excavation and grading activities). The qualified biologist will be given authority to stop any work that may result in take of listed species. If at any time a CRLF is observed within the project site and relocation is necessary, the USFWS will be consulted, and the

animal will be transported to a suitable relocation site within the Carmel River, outside of the project site and released.

Mitigation Measure BIO-3 – Exclusion Fence:

Exclusionary fencing will be installed between the existing pipeline and the Carmel River Lagoon to prevent CRLF from entering from any adjacent habitat. Fencing will consist of silt fence or suitable substitute (e.g., ERTEC 48-inch high-visibility orange silt fencing), which will be buried at least 6-inches below the surface (or otherwise sealed in a like manner) to prevent incursion under the fence and will stand at least 36 inches above-ground. The fence will also be made of an opaque material for visibility. Exit funnels will be installed to allow any animals that may be occupying the project site to escape. Exclusion fencing will be inspected and maintained throughout the project. Fencing will be removed only when all construction equipment is removed from the site.

The exclusion fence will be checked for breaches on a daily basis by the qualified biologist. However, if a qualified biologist is not required to be on-site for biological monitoring or other tasks, an on-site representative may be appointed to check the fence on a daily basis and conduct repairs. If an on-site representative is conducting inspections and repairs, a qualified biologist will verify the fence status on a weekly basis to assure repairs are occurring as needed. A comprehensive fencing plan will be submitted for District approval.

Mitigation Measure BIO-4 – Covering Trenches:

To prevent inadvertent entrapment of wildlife, any excavated, steep-walled holes or trenches more than 12 inches deep will either be covered at the close of each working day, or have one or more escape ramps constructed of earth fill or wooden planks installed with slopes less than 4:1 (H:V). Before any such holes or trenches are filled, they will be inspected for wildlife by a qualified biologist.

Mitigation Measure BIO-5 – Work Windows:

The project will not operate heavy equipment on-site from 30 minutes after sunrise to 30 minutes before sunset, thereby avoiding disturbances during the most active times for the subject species. The project may occur year-round.

Mitigation Measure BIO-6 – Delineating Boundaries:

The boundary of the project site will be clearly delineated with highly-visible stakes, fencing, or flagging.

Mitigation Measure BIO-7 – Disposal of Trash:

To eliminate attractants of predators, any food-related trash will be disposed of in closed containers and removed from the site regularly.

Mitigation Measure BIO-8 – No Mono-filament Netting:

Mono-filament netting or similar material will not be used on any erosion control devices specified in the SWPPP.

Mitigation Measure BIO-9 – Vehicular Traffic:

All vehicle traffic will be restricted to established or defined temporary access roads.

Mitigation Measure BIO-10 – Revegetation:

The project will revegetate temporary disturbance areas, as such, no permanent loss of CRLF upland refugia habitat is anticipated.

Hoary Bat

If left unprotected, Hoary bats roosting in mature trees in the project area may be harassed, harmed, or killed during tree trimming. Mitigation Measure BIO-11 stipulates that bat roost assessments be required no more than 14 days prior to the start of construction activities if construction is to occur during maternity roosting season.

Mitigation Measure BIO-11 – Bat Roost Assessment:

To avoid impacts to roosting bats, tree trimming, if necessary, should occur between October 1 and March 31, outside of the maternity roosting season (when female bats may have dependent young). If tree trimming must occur between April 1 and September 30, a bat roost habitat assessment should be conducted by a qualified biologist. The bat roost habitat assessment would determine the likelihood of the project site supporting roosting bats at the time of tree trimming. If the assessment identifies suitable or potentially occupied roosts within the project site, a pre-construction bat survey should be performed no more than 14 days prior to removal using site appropriate survey methods to determine if potential roost structures are occupied.

If special-status bat species are detected during these surveys, tree trimming shall be postponed until the end of the maternity roosting season. Irrespective of time of year, all felled tree branches should remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape.

Nesting Birds

Project activities, such as vegetation removal and ground disturbance, have the potential to impact common nesting birds protected by the CFGC or MBTA by causing direct mortality of eggs or young or by causing auditory, vibratory, and/or visual disturbance of a sufficient level to cause abandonment of an active nest. If project activities occur during the nesting season, which generally extends from February 1 through August 31, nests of common birds could be impacted by construction and other ground-disturbing activities. The project would revegetate temporary disturbance areas, so no permanent loss of

habitat is anticipated for nesting birds. Impacts to nesting birds would be considered potentially significant under CEQA. This impact could be mitigated to level considered less than significant pursuant to CEQA with implementation of the Mitigation Measure BIO-12.

Mitigation Measure BIO-12 – Common Nesting Birds:

Project activities, such as vegetation removal, grading, or initial ground-disturbance, will be conducted between September 1 and January 31 (outside of the February 1 to August 31 nesting season) to the greatest extent feasible. If project activities must be conducted during the nesting season, a pre-construction nesting bird survey will be conducted by a qualified biologist no more than 14 days prior to vegetation removal or initial ground disturbance. The survey will include the project site and surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by project activities.

If active nests of native nesting bird species are located during the nesting bird survey, a work exclusion zone will be established around each nest by the qualified biologist. Established exclusion zones will remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes will be determined by a qualified biologist and will vary based on species, nest location, existing visual buffers, noise levels, and other factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. Exclusion zone size will be reduced from established levels by a qualified biologist if nest monitoring findings indicate that project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.

Critical Habitat

The project would temporarily impact upland areas designated as critical habitat for CRLF by the USFWS. Temporary impacts to this habitat would occur as the result of vegetation trimming and removal, trenching, sewer pipeline installation, and repair work. All adverse effects would be temporary, and all disturbed areas would be revegetated, per Mitigation Measure BIO-13, provided in the following section. Impacts to critical habitat from project implementation would be less than significant.

b) ***Less than Significant with Mitigation Incorporated.*** The final footprint of the project would avoid impacts to coastal bramble to the maximum extent feasible in order to avoid negative impacts to the sensitive community. However, the project may result in temporary impacts to coastal bramble, a CDFW sensitive community. Impacts to CDFW sensitive natural communities would be considered a significant impact under CEQA. This impact would be mitigated to a less than significant level with implementation of Mitigation Measure BIO-13.

Mitigation Measure BIO-13 – Revegetation Plan:

The project will avoid impacts to coastal brambles, coast live oak woodland, and Monterey cypress stands to maximum extent feasible. To mitigate for impacts to coastal brambles that cannot be avoided, a Revegetation Plan will be drafted and submitted to CAWD for approval. All temporary impact areas within the project site will be mitigated via on-site revegetation at a minimum 1:1 ratio of impacted to restored habitat. Natural recruitment of native vegetation is expected to occur and will be augmented through seeding with a native seed mix. In addition, native California blackberry plugs will be installed throughout the areas of temporary impacts to coastal brambles to re-establish this sensitive natural community. Impacts to coastal brambles from project implementation would be less than significant after implementation of this mitigation measure.

c) ***No Impact.*** A segment of existing pipeline is located adjacent to wetlands potentially subject to CCC jurisdiction. The pipeline in this segment is supported on piers with concrete footings. This segment is accessed via an existing footpath. The pipeline would be removed using small equipment or hand tools without excavation. The concrete piers would be left in place. Silt fencing would be installed below the work area to prevent impacts to the adjacent wetland. Therefore, no impacts to potentially jurisdictional waters would occur.

d) ***Less than Significant Impact.*** For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: (1) as habitat patches become smaller, they are unable to support as many individuals (patch size), and (2) the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity). Vegetation removal and construction activities within coast live oak woodland may temporarily impact CRLF upland habitat. However, after construction, temporary impact areas would be restored to pre-existing conditions or better, and therefore all temporarily impacted areas would continue to provide a local movement corridor for terrestrial species

e) ***Less than Significant with Mitigation Incorporated.*** Protected trees, as defined by the County Tree Ordinance, have been identified within the project site. It is anticipated that implementation of the proposed project would result in unavoidable impacts to trees protected by the County Tree Ordinance. A total of 98 coast live oak trees protected under the Tree Ordinance and have been identified in the project area. These protected trees are coast live oaks ranging in size from 6.35 inches to 46.6 inches diameter at two (2) feet above grade. No trees would be removed with the project. Sixty-three (63) trees would not be impacted by the project, and 35 oak trees may potentially be impacted based on the comparison of project plans and tree survey data collected during the survey (refer to

Appendix B). Implementation of Mitigation Measure BIO-14 below would be required in order to avoid impacting the 35 oak trees during construction; therefore, reducing the impact to a less-than-significant level.

Mitigation Measure BIO-14 – Protected Trees:

The applicant shall install construction fencing at the dripline of all protected trees in the project area and all equipment will be maintained and stored in the designated staging area ensuring that the tree protection zone is established. Fence material shall be high visibility construction fencing. Trimming of trees to provide access for machines and equipment shall be done with a hand saw or electrical saw, and no major limbs measuring four (4) inches in diameter 0.5 foot from the branch union shall be removed. If any root trimming is required, it should be done at 90 degrees to the grade, at the node, and only up to two (2) inches in diameter.[21] No stockpiling of excavated soil during trenching shall be placed within the dripline of any protected tree.

f) ***No Impact.*** The project would not conflict with the provisions of an adopted Habitat Conservation Plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. The project site is not within a geographic area covered by an adopted HCP or a natural community conservation plan. The project site conforms with all applicable measures and recommendations set forth in the Carmel Area Land Use Plan of the *Monterey County Coastal Implementation Plan*.

[21] *ANSI A300 Pruning Standard - Part 1. 2017. American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning). 33 pp.*

4.5 Cultural Resources

	CULTURAL RESOURCES — Would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

This section examines the potential impacts of the proposed project on cultural resources. Tribal cultural resources are addressed in Section 4.184.18, Tribal Cultural Resources. For the purposes of this analysis, the term "cultural resource" is defined as follows:

> *Indigenous and historic-era sites, structures, districts, and landscapes, or other evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or another reason.*

These resources include the following types of CEQA-defined resources: historical resources, archaeological resources, and human remains. This section relies on the information and findings presented in *Cultural Resources Inventory Report: Carmel Meadows Lift Station and Sewer Replacement Project, Monterey County, California*.[22] This report details the results of the cultural resources study, which examined the environmental, ethnographic, and historic background of the project site, emphasizing aspects of human occupation. The report contains sensitive cultural and tribal cultural resources information and is available for review upon request to qualified individuals only.

4.5.1 Environmental Setting

Records Search

On April 17, 2020, at WRA's request, staff of the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park, conducted a cultural resources records search of the area of potential effect (APE) for the project (File #19-1691). The NWIC maintains the official California Historical Resources Information System (CHRIS) records of previous cultural resources studies

[22] *ESA. 2021. Carmel Meadows Lift Station and Sewer Replacement Project, Monterey County, California – Cultural Resources Inventory Report. June 2021.*

and recorded cultural resources for the project site and vicinity. For the requested records search, the search area included the project site plus a 0.25-mile radius around the project site.

The NWIC has record of ten previously recorded cultural resources in the records search area, none of which are located within the project site. Of these ten resources, three are indigenous archaeological resources and seven are historic-era architectural resources. The closest previously recorded resources to the project site are located within 300 feet of the vicinity of the project site.

The NWIC has record of three reports from previous cultural resources studies that have been conducted in the records search project site radius that covered some portion of the project site. An estimated 65 percent of the total project site was covered by these studies, all of which consisted of pedestrian surveys that did not identify any cultural resources.

Field Survey

On April 29, 2020, WRA conducted a cultural resources pedestrian survey of the eastern APEAPE along the rear of the homes on the north side of the neighborhood and the staging area (Appendix C). Intensive pedestrian survey methods were used, consisting of walking parallel transects spaced at no more than five meters apart and inspecting the surface for cultural material (archaeological or architectural) or evidence thereof. When ground visibility was poor, cleared areas and areas disturbed by rodents along and between the transect lines were checked with special attention.

On April 30, 2021, Environmental Science Associates (ESA) conducted an additional cultural resources pedestrian survey of the APE between access points in the vicinity of Calle La Cruz Drive and Mariposa Drive (Appendix C). The pedestrian survey was conducted in order to inspect the area for surface presentations of archaeological and architectural materials (or evidence thereof), and also to observe and document above-ground segments of the existing wastewater pipeline and associated components. Areas between the two transects that evidenced animal activity, slope erosion, or maintenance by CAWD representatives afforded ground visibility that was otherwise constrained by dense vegetation or safe accessibility, and those areas were targeted for particularly close examination.

Summary of Cultural Resources Identification Efforts

Through background research, no cultural resources were identified in the APE. During the field surveys conducted for the project, one cultural resource, an historic-era raised pipeline (an architectural resource) was identified. The pipeline reflects typical infrastructure designated to support suburban residential development in the mid-20th century and does not possess any unique significance for this association. As such, the pipeline does not appear to be individually eligible for listing under California Register of Historical Resources (California Register) Criteria 1

to 4.[23] Therefore, no historical resources or unique archaeological resources, as defined by CEQA, are present in the project site.[24]

4.5.2 Regulatory Setting

California Environmental Quality Act

CEQA (codified in Public Resources Code [PRC] § 21000 *et seq.*) is the principal statute governing environmental review of projects occurring in the State of California. CEQA requires lead agencies to determine if a project would have a significant effect on historical resources, unique archaeological resources, or tribal cultural resources.

The State implements provisions in CEQA through its statewide comprehensive cultural resources surveys and preservation programs. Typically, a resource must be more than 50 years old to be considered as a potential historical resource. The State of California Office of Historic Preservation advises recordation of any resource 45 years or older since there is often a five-year lag between resource identification and the date that planning decisions are made.

Historical Resources

CEQA Guidelines recognize that a historical resource includes: 1) a resource in the California Register; 2) a resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC § 5024.1(g); and 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC § 21084.1 and PRC § 15064.5 apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines (codified at PRC § 15000 *et seq.*), then the site may be treated in accordance with the provisions of PRC § 21083, pertaining to unique archaeological resources.

Unique Archaeological Resources

As defined in PRC § 21083.2 a "unique archaeological resource" is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

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[23] ESA. Cultural Resources Inventory Report for the Carmel Meadows Lift Station and Sewer Replacement Project. June 2021.

[24] Ibid.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Guidelines note that if an archaeological resource is not a unique archaeological, historical resource, or tribal cultural resource, the effects of the project on those cultural resources shall not be considered a significant effect on the environment (PRC § 15064.5[c][4]).

Tribal Cultural Resources

Impacts to tribal cultural resources are also considered under CEQA (PRC § 21084.2; also see AB 52). PRC § 21074(a) defines a tribal cultural resource as any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    - included or determined to be eligible for inclusion in the California Register; or
    - included in a local register of historical resources, as defined in PRC § 5020.1(k).
- 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 I of [PRC] § 5024.1. In applying these criteria, the lead agency would consider the significance of the resource to a California Native American tribe.

Tribal cultural resources are addressed herein in Section4.18, Tribal Cultural Resources.

California Register of Historical Resources

California Register is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC § 5024.1[a]). The criteria for eligibility for the California Register are based upon the criteria for listing on the National Register of Historic Places (National Register; PRC § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a cultural resource must be significant at the local, State, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must be of sufficient age and retain enough of its historic character or appearance (integrity) to convey the reason for its significance. Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the California Office of Historic Preservation (OHP) and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historic resources;
- Historic resources contributing to historic districts; and
- Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Public Resources Code § 5097

PRC § 5097.99, as amended, states that no person shall obtain or possess any Native American artifacts or human remains that are taken from a Native American grave or cairn. Any person who knowingly or willfully obtains or possesses any Native American artifacts or human remains is guilty of a felony, which is punishable by imprisonment. Any person who removes, without authority of law, any such items with an intent to sell or dissect or with malice or wantonness is also guilty of a felony which is punishable by imprisonment.

California Native American Historic Resource Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to $50,000 per violation, for persons who unlawfully and maliciously excavates upon, removes, destroys, injures, or defaces a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register.

California Health and Safety Code § 7050.5

Section 7050.5 of the California Health and Safety Code (HSC) protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. PRC § 5097.98 (and reiterated in PRC § 15064.59[e]) also identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery.

4.5.3 Discussion of Impacts

The following analysis discusses archaeological resources, both as historical resources, as defined in the CEQA Guidelines (PRC § 15064.5), and as unique archaeological resources, as defined in PRC § 21083.2(g).

a) ***No Impact.*** No historical resources were identified in the project site or vicinity based on the results of the background research, outreach to Native American representatives, and field surveys conducted for the proposed project by WRA and ESA. The historic era raised pipeline was not deemed eligible for the California Register because it reflects typical infrastructure designed to support suburban residential development in the mid-20th century and does not possess any unique significance. There are no known historical resources as defined in CEQA Guidelines § 15064.5 in the project site or vicinity. Therefore, the proposed project would not impact any historical resources.

b) ***Less than Significant with Mitigation Incorporated.*** A field survey and records search conducted for the proposed project determined that no archaeological resources have been identified in the project site or its vicinity. No known archaeological resources that may qualify as historical resources, as defined in CEQA Guidelines § 15064.5, or unique archaeological resources, as defined in PRC § 21083.2(g), are present within the site or its vicinity. Therefore, the proposed project would not affect any archaeological resource, pursuant to CEQA Guidelines § 15064.

Because the proposed project would involve some ground-disturbing activities that may extend into undisturbed soil, construction activities may unearth, expose, or disturb subsurface archaeological resources that have not been previously identified. If such archaeological deposits are present in the project site and were found to qualify as archaeological resources pursuant to CEQA Guidelines § 15064, impacts of the proposed project on archaeological resources could be potentially significant. Such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CULT-1 and CULT-2:

> Mitigation Measure CULT-1 – On-Site Archaeological Monitor:
> To reduce potential impacts to cultural resources that may be discovered during development of the site, a qualified archaeological monitor (i.e., an archaeologist registered with the Register of Professional Archaeologists [RPA] or a Registered Archaeologist [RA] under the supervision of an RPA) shall be present and observe all soil disturbance for all grading and excavation activities. If at any time potentially significant archaeological resources or intact features are discovered, the monitor shall temporarily halt work until the find can be evaluated by the archaeological monitor. If the find is determined to be significant, work shall remain halted until a plan of action has been formulated, with the concurrence of CAWD, and implemented. To facilitate data recovery of smaller midden components, such as beads or lithic debitage, the excavated soil from the project site shall be screened during monitoring.

Mitigation Measure CULT-2 – Unanticipated Discovery Protocol for Archaeological Resources:

If indigenous or historic-era archaeological resources are encountered during proposed project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. CAWD and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archaeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the find within 24 hours of discovery and notify CAWD of their initial assessment. If the resource is indigenous, CAWD shall also contact relevant California Native American Tribes to assist in determining if the resource may qualify as a tribal cultural resource.

Based on recommendations from the qualified archaeologist, if CAWD determines that the resource is indigenous, relevant to California Native American Tribes, and has potential to qualify as a historical resource, a unique archaeological resource (as defined in CEQA Guidelines § 15064.5), or a tribal cultural resource (as defined in PRC § 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, CAWD shall consult with appropriate Native American tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC § 21083.2 and CEQA Guidelines § 15126.4. This shall include documentation of the resource and may include data recovery or other measures. Treatment for most resources would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource. The resource and treatment method shall be documented in a professional-level technical report to be filed with CHRIS. Work in the area may commence upon completion of approved treatment and under the direction of the qualified archaeologist.

c) ***Less than Significant with Mitigation Incorporated.*** No known human remains have been identified in the project site or its vicinity. Also, the land use designations for the project site do not include cemetery uses. Therefore, the proposed project is not anticipated to disturb any human remains.

However, because the proposed project would involve some ground-disturbing activities, construction activities may unearth, expose, or disturb previously unknown human remains. If human remains were discovered during proposed project construction activities, impacts on the human remains resulting from the proposed project would be significant if those remains were disturbed or damaged. Such potentially significant

impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CULT-3.

> Mitigation Measure CULT-3 – Unanticipated Discovery Protocol for Human Remains:
>
> If human remains are uncovered during proposed project construction, all work shall immediately halt within 100 feet of the find and the Monterey County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines § 15064.5(e)(1). If the County Coroner determines that the remains are Native American, CAWD shall contact the California Native American Heritage Commission (NAHC), in accordance with HSC § 7050.5(c) and PRC § 5097.98. As required by PRC § 5097.98, CAWD shall ensure that further development activity avoids damage or disturbance in the immediate vicinity of the Native American human remains, according to generally accepted cultural or archaeological standards or practices, until CAWD has conferred with the Most Likely Descendants regarding their recommendations.

4.6 Energy

	ENERGY — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
a)	Result in 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?	☐	☐	☒	☐

4.6.1 Environmental Setting

California

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amount of energy contained in common energy sources are as follows: gasoline, 115,000 BTUs per gallon; diesel, 138,500 BTUs per gallon; natural gas, 21,000 BTUs per pound (lb); electricity, 3,414 BTUs per kilowatt-hour (kWh).[25]

Total energy usage in California was 7,967 trillion BTUs in 2018, which equates to an average of 202 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 39.4 percent transportation, 23.1 percent industrial, 18.7 percent residential, and 18.8 percent commercial. Natural gas is California's primary source of electric power, followed by nonhydroelectric renewables, nuclear, and hydroelectric sources.[26] Given the nature of the proposed project, the main uses of energy would occur via construction vehicle fuel and electricity during operation of the small lift station in the Mariposa Drive. The lift station would be below the street surface and would draw electricity from the underground electric power in the center of Ribera Road. There would be no other ongoing energy consumption in the operational phase of the project.

Monterey County

Nearly all the electric energy used in Monterey County is procured from carbon free and renewable energy sources (i.e., solar, wind, and hydro). PG&E operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to approximately 140,000 residential and non-residential user accounts. Most of the

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[25] *U.S. Department of Energy, 2021. Alternative Fuels Data Center – Fuel Properties Comparison. http://www.afdc.energy.gov/fuels/fuel_comparison_chart.pdf*

[26] *US Energy Information Administration. 2021. California State Profile and Energy Estimates. Available at: https://www.eia.gov/state/?sid=CA#tabs-4 Accessed on July 2, 2021.*

electricity that PG&E distributes throughout Monterey County is provided by Central Coast Community Energy (3CE), a publicly controlled Community Choice Energy agency.[27] As of July 2018, roughly 97 percent of Monterey County's overall energy load is serviced by MBCP. According to the California Energy Commission, total energy consumption in California in 2016 was approximately 285,701 x 106 kilowatt hours. Monterey County's overall annual energy consumption in 2016 was approximately 2,586 x 106 kilowatt hours, which represents less than 1 percent of total electricity consumption in California.[28]

4.6.2 Regulatory Setting

Federal and State agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and U.S. EPA are three (3) federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy related research and development projects, and through funding for transportation infrastructure improvements.

At the State level, the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes, and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from rules that otherwise would preempt setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State energy-related laws and plans are discussed below.

Senate Bill (SB) 1389 requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety.

The 2020 Integrated Energy Policy Report is the most recent update. The State's energy system includes energy extraction, transport, conversion (such as combusting natural gas in power plants to generate electricity or producing gasoline and diesel from crude oil in refineries), and consumption for services (such as electricity for lighting, natural gas use in homes and buildings

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[27] *PG&E. Community Choice Aggregation. Available online at: https://www.pge.com/en_US/residential/customer-service/other-services/alternative-energy-providers/community-choice-aggregation/community-choice-aggregation.page*

[28] *California Energy Commission. Electricity Consumption by County. Available online at: https://ecdms.energy.ca.gov/elecbycounty.aspx*

for space and water heating, pumping water to communities and crops, and gasoline and diesel to fuel cars and trucks), as well as electricity from out of-State plants serving California. In 2019, the State consumed approximately 3.8 billion gallons of diesel.[29]

Federal Regulations

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. The act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers. It directs the U.S. Department of Energy to study and report on alternative energy sources such as wave and tidal power and includes funding for hydrogen research. The Act also increases the amount of ethanol required to be blended with gasoline and extends daylight saving time (to begin earlier in spring and end later in fall) to reduce lighting requirements. It also requires the federal vehicle fleet to maximize use of alternative fuels. The Act further includes provisions for expediting construction of major energy transmission corridors, such as high-voltage power lines, and fossil fuel transmission pipelines. These are just a few examples of the provisions contained in the Act.[30]

Energy Independence and Security Act of 2007

Signed into law in December 2007, this broad energy bill included an increase in auto mileage standards, and also addressed biofuels, conservation measures, and building efficiency. The U.S. EPA administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards. The bill amended the CAFE standards to mandate significant improvements in fuel efficiency (i.e., average fleet wide fuel economy of 35 miles per gallon (mpg) by 2020, versus the previous standard of 27.5 mpg for passenger cars and 22.2 mpg for light trucks).[31]

Another provision includes a mandate to increase use of ethanol and other renewable fuels by 36 billion gallons by 2022, of which 21 million gallons is to include advanced biofuels, largely cellulosic ethanol, that have 50 to 60 percent lower GHG emissions. The bill also includes

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[29] *California Energy Commission. Final 2020 Integrated Energy Policy Report Update Volume I Blue Skies, Clean Transportation.*

[30] *United States Congress, Energy Policy Act of 2005 (Public Law 109-58), passed July 29, 2005. https://www.congress.gov/bill/109th-congress/house-bill/6*

[31] *EPA. 2007. Summary of the Energy Independence and Security Act. Available online at: https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act*

establishment of a new energy block grant program for use by local governments in implementing energy-efficiency initiatives, as well as a variety of green building incentives and programs.[32]

State Regulations

Energy Action Plan

In 2003, the three key energy agencies in California— the CEC, the California Power Authority (CPA), and the CPUC— jointly adopted an Energy Action Plan (EAP) that listed goals for California's energy future and set forth a commitment to achieve these goals through specific actions. In 2005, the CPUC and the CEC jointly prepared the EAP II to identify the further actions necessary to meet California's future energy needs. The EAP II describes the priority sequence for actions to address increasing energy needs, also known as "loading order." The loading order identifies energy efficiency and demand response as the State's preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, the State is to rely on renewable sources of power and distributed generation, such as combined heat and power applications. To the extent that efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, the EAP II supports the use of clean and efficient fossil fuel-fired generation.

In 2008, the CPUC and CEC released an Energy Action Plan Update using information and analysis prepared for the Energy Commission's *2007 Integrated Energy Policy Report (IEPR)*. The Update was partially written in response to the California Global Warming Solutions Act of 2006 (discussed below), intended to keep the EAP I and EAP II process alive while capturing changes in the policy landscape and describing intended activities to accomplish those policies. The focus areas included: energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.[33]

The EAP identifies key actions to be taken in all of these areas in order to meet the State's growing energy requirements. The plan recommendations are implemented by the governor through executive orders, by the legislature through new statutes, and by the responsible State agencies through regulations and programs.

Title 24 (California Energy Code)

The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings), provides energy conservation standards for all new and renovated commercial and residential buildings

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[32] *Ibid.*

[33] *State of California, Energy Commission and Public Utilities Commission, "Energy Action Plan 2008 Update," February 2008.*
http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/2008%20Energy%20Action%20Plan%20Update.pdf

constructed in California. The provisions of the California Energy Code apply to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances; they also give guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls, and ceilings. The CEC adopted the 2005 changes to the Building Efficiency Standards, which emphasized saving energy at peak periods and seasons, and improving the quality of installation of energy-efficiency measures. It is estimated that implementation of the 2005 Title 24 standards have resulted in an increased energy savings of 8.5 percent relative to the previous Title 24 standards. Compliance with Title 24 standards is verified and enforced through the local building permit process.[34] The 2008 Title 24 Standards, which had an effective date beginning August 1, 2009, include added provisions that require, for example, “cool roofs” on commercial buildings; increased efficiency in heating, ventilating, and air conditioning systems; and increased use of skylights and more efficient lighting systems.[35] Title 24 Standards were further updated with the 2013 Building Energy Efficiency Standards, which are estimated to lead to 25 percent less energy consumption for residential buildings and 30 percent savings for nonresidential buildings over 2008 Energy Standards. 2013 standards, which updated codes for lighting, space heating and cooling, ventilation, and water heating, took effect on July 1st 2014.

California Green Building Standards Code

All new construction must adhere to the California Green Building Standards Code (CCR, Title 24, Part 11) in place at the time of construction. As an example, the 2013 Title 24 California Green Building Standards, referred to as CALGreen, includes the following:

- Sets a threshold of a 20 percent reduction in indoor water use and includes voluntary goals for reductions of 30 percent, 35 percent, and 40 percent.
- Requires separate meters for indoor and outdoor water use at nonresidential buildings; and at those sites, irrigation systems for larger landscaped areas must be moisture-sensing.
- Calls for 50 percent of construction waste to be diverted from the landfills and lists higher, voluntary diversion amounts of 65 percent to 75 percent for new homes, and 80 percent for commercial construction.
- Mandates inspections of energy systems -- such as the heat furnace, air conditioning, and mechanical equipment -- for nonresidential buildings that are larger than 10,000 square feet to "ensure that all are working at their maximum capacity according to design efficiencies."
- Requires that paint, carpet, vinyl flooring, particle board, and other interior finish materials be low-emitting in terms of pollutants.

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[34] California Energy Commission (2016) Web site (Building Efficiency Standards), http://www.energy.ca.gov/title24

[35] Ibid.

California Global Warming Solutions Act of 2006

In September 2006, the governor signed Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, which mandates that California's greenhouse gas (GHG) emissions be reduced to 1990 levels by 2020. The act directs the California EPA to work with State agencies to implement a cap on GHG emissions (primarily carbon dioxide) from stationary sources of such as electric power generation facilities, and industrial, commercial, and waste-disposal sectors. Since carbon dioxide emissions are directly proportional to fossil fuel consumption, the cap on emissions is expected to have the incidental effect of forcing a reduction in fossil fuel consumption from these stationary sources. Specifically, AB 32 directs the California EPA to work with other State agencies to accomplish the following: 1) promulgate and implement GHG emissions cap for the electric power, industrial, and commercial sectors through regulations in an economically efficient manner; 2) institute a schedule of greenhouse gas reductions; 3) develop an enforcement mechanism for reducing GHG; and 4) establish a program to track and report GHG emissions.[36]

Senate Bill 32

Enacted in 2016, SB 32 codifies the 2030 GHG emissions reduction goal of Executive Order B-30-15 by requiring California Air Resources Board (CARB) to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. Similar to AB 32, a reduction in GHG emissions typically corresponds with a reduction in energy usage as the bulk of GHGs result from the combustion of fossil fuel.

SB 32 was coupled with a companion bill: AB 197. Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Local Regulations

In addition to federal and State regulations and guidelines, the following is a synopsis of local county regulations and goals relative to reducing or avoiding significant impacts on energy use.

2010 Monterey County General Plan

Goal OS-9 – Promote Efficient Energy Use.

> **OS-9.1** The use of solar, wind and other renewable resources for agricultural, residential, commercial, industrial, and public building applications shall be encouraged.

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[36] *Assembly Bill 32, Passed August 31, 2006, http://www.arb.ca.gov/cc/docs/ab32text.pdf.*

OS-9.2 Development shall be directed toward cities, Community Areas, and Rural Centers where energy expended for transportation and provision of services can be minimized.

OS-9.3 Areas of urban concentration shall provide convenient access for employment, commercial, and other activities.

OS-9.4 Lots shall be oriented to maximize the energy gains from solar and/or wind resources in order to minimize energy losses where possible.

OS-9.5 Clustered development is favored where such development will conserve energy.

OS-9.6 Development shall incorporate features that reduce energy used for transportation, including pedestrian and bicycle pathways, access to transit, and roadway design as appropriate.

OS-9.7 Weatherization of existing buildings is encouraged.

OS-9.8 Solar heating shall be required as the primary source for heat in all new swimming pools where it is proven most cost-effective.

Monterey County Community Climate Action Plan

The 2010 Monterey County General Plan called for the adoption of a climate action plan. The policies within the 2010 Monterey County General Plan call for the development and implementation of a GHG Reduction Plan with a target to reduce emissions by 2020 to a level that is 15 percent less than 2005 emission levels and development of transportation strategies to "protect air quality" and "reduce the consumption of fossil fuels". The Community Climate Action Plan (CCAP) for Monterey County is currently under development and will apply countywide when completed. The CCAP will:

- Establish an inventory of 2005 GHG emissions in Monterey County including but not limited to residential, commercial, industrial, and agricultural emissions;
- Forecast GHG emissions for 2020 for County operations;
- Forecast GHG emissions for areas within the jurisdictional control of the County for "business as usual" conditions;
- Identify methods to reduce GHG emissions;
- Quantify the reductions in GHG emissions from the identified methods;
- Establish requirements for monitoring and reporting of GHG emissions;
- Establish a schedule of actions for implementation;
- Identify funding sources for implementation;
- Identify a reduction goal for the 2030 Planning Horizon; and
- Evaluate carbon sequestration in agricultural soils and crops as a measure to reduce GHG emissions.

The CCAP will also evaluate potential options for changes in County policies regarding land use and circulation, as necessary, to further achieve the 2020 and 2030 reduction goals and measures to promote urban forestry and public awareness concerning climate change.

4.6.3 Discussion of Impacts

a) ***Less than Significant Impact.*** The proposed project would require the use of diesel and other fuels for trucks and equipment during construction, but these activities would be short-term and completed as efficiently as possible. The only ongoing energy consumption in the operational phase of the project would be from the small lift station in the Mariposa Drive. The lift station would be below the street surface and would draw electricity from the underground electric power in the center of Ribera Road. The project would improve the existing sewer line system in the project area and would not involve notable new energy demand sources in the long-term. Given the important role of the lift station in sewer line functioning, the relatively minor amount of energy used to power the lift station is not wasteful, inefficient, or unnecessary. Furthermore, any energy usage increase from the baseline condition would be very minor if anything. Impacts would therefore be less than significant.

b) ***Less than Significant Impact.*** The proposed project would not significantly constrain local or regional energy supplies, require additional capacity, or substantially affect peak and base periods of electrical demand. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River Lagoon. The degree of energy consumption due to the new station would therefore not be changed from current baseline conditions. The proposed project would not result in a substantial new demand for energy resources nor have any direct or indirect effect on any State or local plan for renewable energy or energy efficiency. Because the CEC's 2020 Integrated Energy Policy Report is intended to reduce GHG emissions by transitioning the State's energy portfolio to more renewable energy sources, it can also be viewed as a plan for renewable energy and energy efficiency on the statewide level. As discussed in a) above, the project's energy consumption would be negligible in comparison to what is consumed annually in the State and it would not be wasteful, inefficient, or unnecessary. The project would only consume energy resources temporarily over the approximate six-week of construction period and would not increase energy consumptions during operations. The project would not conflict with a State plan for energy efficiency. Impacts would be less than significant.

4.7 Geology and Soil

	GEOLOGY AND SOILS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐
	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, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e)	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?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

4.7.1 Environmental Setting

Regional Geologic Setting

The project site lies within the Coast Ranges geomorphic province of California. Regional topography within the Coast Ranges province is characterized by northwest-southeast trending mountain ridges and intervening valleys that parallel the major geologic structures, including the San Andreas Fault System. The province is also generally characterized by abundant land-sliding and erosion, owing in part to its typically high levels of precipitation and seismic activity.

Earthquakes are the product of the build-up and sudden release of strain along a “fault” or zone of weakness in the earth's crust. Stored energy may be released as soon as it is generated, or it may be accumulated and stored for long periods of time. Faults are seldom single cracks in the earth's crust but are typically comprised of localized shear zones which link together to form larger fault zones. Within the Bay Area, faults are concentrated along the San Andreas fault system, which extends nearly 700 miles along a northwest trend from Mexico to offshore northern California. The movement between rock formations along either side of a fault may be horizontal, vertical, or a combination and is radiated outward in the form of energy waves. The amplitude and frequency of earthquake ground motions partially depends on the material through which it is moving. The earthquake force is transmitted through hard rock in short, rapid vibrations, while this energy becomes a long, high-amplitude motion when moving through soft ground materials, such as Bay Mud.

An “active” fault is one that shows displacement within the last 11,000 years (i.e., Holocene) and has a reported average slip rate greater than 0.1 millimeter per year. The California Division of Mines and Geology (1998) has mapped various active and inactive faults in the region. The nearest known active faults to the site are the San Andreas faults, the Palo Colorado–San Gregorio Fault zone, and the Monterey Bay–Tularcitos Fault zone.

Local Geologic Setting

The project site, like all properties in the San Francisco Bay area, is situated in a seismically active area. In the San Francisco Bay Area, the San Andreas fault system includes the San Andreas, Hayward, Calaveras, and other related faults in the San Francisco Bay area. According to the U.S. Geological Survey (Working Group on California Earthquake Probabilities 2003), there is a 62 percent chance of at least a magnitude 6.7 (or greater) earthquake in the San Francisco Bay region between 2003 and 2032.

Aside from the San Andreas Faults, two other active faults are located in Monterey County: the Palo Colorado–San Gregorio Fault zone and the Monterey Bay–Tularcitos Fault zone. The Palo Colorado–San Gregorio Fault zone connects the Palo Colorado Fault near Point Sur south of Monterey with the San Gregorio Fault near Point Año Nuevo in Santa Cruz County. It is a right-lateral strike-slip fault zone oriented generally north-south consisting of two or more parallel and fairly continuous fault segments that extend at least 60 miles. The Monterey Bay–Tularcitos Fault zone lies seaward of the City of Seaside, extending northwesterly to the Pacific Ocean. It is composed of short, discontinuous parallel fault segments ranging from 3 to 9 miles in length.

The Monterey Bay Fault–Tularcitos zone is either truncated or merges with the San Gregorio fault segment of the Palo Colorado–San Gregorio Fault zone.[37]

The project site is not located within a State of California designated Alquist-Priolo Earthquake Fault Zone.[38] Earthquake fault zones are regulatory zones that encompass surface traces of active faults that have a potential for future surface fault rupture. The closet active faults to the site are the San Andreas Fault, located approximately 30 miles to the northeast of the project site at its closest point, and the Monterey Bay-Tularcitos Fault, approximately 4.7 miles northwest at its closest point. The Cypress Point Fault is a northwest-trending normal fault that skirts and parallels the elevated ridge of ground between Scenic Road and Carmelo Street; the fault is mapped just east of and parallel to Carmelo Road and is not considered active.

4.7.2 Discussion of Impacts

a-i,) ***Less than Significant Impact.*** The proposed project vicinity is transected by the Cypress Point Fault, which is not considered active. The proposed project site is not located within an Alquist-Priolo Earthquake Fault Zone and no mapped active faults are known to cross the proposed project site. The nearest active fault is the Monterey Bay-Tularcitos Fault approximately 4.7 miles to the northeast of the project site. Since the proposed project site is located in a region of high seismicity, it is anticipated that during the life of the proposed project, the proposed project site would be subject to strong ground shaking. It is also anticipated that the area would periodically experience small to moderate magnitude earthquakes. However, since the area near the proposed project site is transected by the Cypress Point Fault, which is not considered active, surface rupture associated with a fault is not anticipated. Therefore, impacts would be less than significant.

a-ii) ***Less than Significant Impact***. Due to the site's proximity to known faults, the site has the potential for moderate to high seismic activity. No active faults are known to transect the project site. The nearest known fault is the Cypress Point fault located northwest of the project site and is not considered active. The proposed project would not create a need or opportunity for people to reside on-site and thus be exposed to such ground shaking long-term. If an earthquake were to occur during construction, it could create a risk for workers on-site, but under the obligation of the Occupational Safety and Health Act (OSHA), construction workers would be trained to take the necessary precautions to maintain worker safety in the event of an earthquake. Structures associated with the proposed work would be designed to conform to the most recent edition of the California

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[37] *Monterey Office of Emergency Services. Hazard Ready. Earthquakes. Available at <https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/ready-monterey-county/hazard-ready/earthquakes> Accessed on August 18, 2020.*

[38] *California Department of Conservation. Alquist-Priolo Earthquake Fault Zones. Available at: https://www.conservation.ca.gov/cgs/alquist-priolo# Accessed on: July 19, 2021*

Building Code (CBC) (2019) with flexible connections and CBC design features. Impacts would be less than significant.

a-iii) ***Less than Significant Impact.*** Liquefaction occurs when a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, such as seismic shaking, which causes a solid to behave like a liquid. Soils susceptible to liquefaction are saturated, loose, granular deposits. Liquefaction can result in flow failure, lateral spreading, ground movement, settlement, and other related effects. Buried pipelines embedded within liquefied soils may also experience uplift due to buoyancy.

According to the Geologic Hazards Map for Monterey County, there is a low to moderate liquefaction susceptibility in the project site area; however, no historical evidence of liquefaction is documented within 2 miles of the project site;[39] therefore, the likelihood of damage to the new lift station and sewer pipeline due to liquefaction is low. In addition, the project would be subject to all federal, State, and local regulations for seismic conditions, including the CBC. Impacts would be less than significant.

a-iv) ***Less than Significant Impact.*** According to the Geologic Hazards Map for Monterey County, landslide susceptibility is low for the project site. Landslides are frequently triggered by strong ground motions.[40] Landslides include a wide range of ground movement, such as rock falls, deep failure of slopes, and shallow debris flows.

The slope on which the existing pipeline is located is moderately to extremely steep. However, only above-ground work would occur in this area, and vehicles and heavy equipment would access the project site using existing footpaths. During construction activities, workers would adhere to OSHA regulations to ensure their safety in the event of any landslides.

The project is subject to all federal, State, and local regulations and standards for seismic conditions, including the CBC, and would be designed to conform to all building requirements. Given the low risk of landslides at the project site and the legal obligations associated with seismic building design, impacts associated with seismic landslides would be less than significant.

b) ***Less than Significant Impact.*** The erosive potential of soils within the project site ranges from low to moderate; however, the majority of soils are classified as having a low erosion

[39] *Geologic Hazards Map for Monterey County. Liquefaction Susceptibility. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: June 9, 2021.*

[40] *Geologic Hazards Map for Monterey County. Landslide Susceptibility. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: September 1, 2020.*

potential.[41] If left unprotected, these soils may be subject to wind erosion. Construction would involve limited soil disturbance, which could temporarily expose soils to possible wind and water erosion. However, the project would not cause a substantial change to erosion and accretion patterns of the area long-term because the proposed project would not alter the existing drainage pattern of the area. As mentioned in the Project Description, any impacts to residential landscaping would be avoided where possible and/or restored to original or better condition. In areas where the alignment is beyond the fenced parcel, native vegetation would also be restored with native seeding and erosion BMPs installed on steeper slopes as needed to minimize the potential for erosion and indirect effects associated with soil erosion (i.e., water quality impacts, fugitive dust). Impacts on soil would therefore be less than significant.

c, d) ***Less than Significant Impact.*** The potential for geologic and soil hazards from unstable or expansive soils in the project site is considered low based on the geologic units, soil types, and topography of the project site. The project site is underlain by Narlon loamy fine sand, Sheridan coarse sandy loan, and Xerothents.[42] The ground disturbance associated with the proposed project would cause soil disturbance but these actions would not result in substantial changes in topography, ground surface relief features, or geologic substructures, and would therefore not change the stability of the soil conditions. The only above-ground structures associated with the project would be constructed in previously disturbed, paved areas in the Mariposa Drive. Furthermore, the project is subject to all federal, State, and local regulations and standards for seismic conditions including the CBC and would be designed to conform to all building requirements. Therefore, the proposed project's impacts would not destabilize the soil or expose human life or structures to increased risk of on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts would be less than significant.

Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Structures or improvements built atop expansive soils may be subject to damage from soil shrinkage and swelling, associated with wetting and drying. A soil with a higher plasticity index is generally more prone to shrinkage or swelling in response to seasonal rainfall. No expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), were identified on the project site. As a result, the project would not create a substantial risk to life or property due to expansive soil conditions.

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[41] *Geologic Hazards Map for Monterey County. Erosion Hazard Rating. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: September 1, 2020.*

[42] United States Department of Agriculture. January 13, 2022. Custom Soil Resource Report for Monterey Count, California.

e) ***No Impact.*** The new sewer lines would connect into the new lift station which would be connected to existing sewer and leads to the existing wastewater treatment plant. The project does not involve construction of septic tanks or alternative wastewater disposal systems and would therefore have no impact on soils related to septic tanks or alternative wastewater disposal systems.

f) ***Less than Significant Impact with Mitigation Incorporated.*** The project site is located on previously disturbed land as it falls in the backyards of nearly 20 homes. Open trench excavation would result in disturbance area that would be approximately twelve feet wide, for a total disturbance area of approximately 15,000 square feet. Trenches would be a foot wide by three to five feet deep. The ground disturbance associated with the project would not change the topography or geologic substructures of the vicinity and would therefore not change any unique geologic features. Although no ground disturbance would be required for the removal of the existing pipeline, installation of the new pipeline could result in significant impacts to paleontological resources during excavation into native geologic formations below existing fill material, where fossils may be buried, and physical destruction of fossils could occur. Implementation of Mitigation Measure GEO-1 would reduce this impact to a less-than-significant level.

Mitigation Measure GEO-1: Paleontological Resources

The applicant shall inform its contractor(s) of the sensitivity of the project site for paleontological resources and shall include the following directive in the appropriate contract documents. The County shall verify that the following directive is included in the appropriate contract documents:

> "The subsurface of the construction site may be sensitive for paleontological resources. The contractor shall provide information to construction crews on how to recognize paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground disturbing activities within 25 feet of the find shall be redirected and the County and a qualified paleontologist contacted to assess the situation. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as animal tracks."

The County and a qualified paleontologist shall make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, preparation of a technical report, and providing the fossil material and technical report to a paleontological repository, such as the University of California Museum of Paleontology. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting

methods, findings, and recommendations shall be prepared and submitted to the County for review.

4.8 Greenhouse Gas Emissions

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

4.8.1 Environmental Setting

AB 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce GHG emissions to 1990 levels by 2020 as described in Section 4.6, above. Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009.

GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs released from human activity are carbon dioxide, methane, and nitrous oxide.[43] The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

In the United States, the main source of GHG emissions is electricity generation, followed by transportation.[44] In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions.[45] The dominant GHG emitted is carbon dioxide, mostly from fossil fuel combustion.

In response to an increase in man-made GHG concentrations over the past 150 years, California implemented AB 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the

[43] *Governor's Office of Planning and Research. 2008 CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. Available at: https://opr.ca.gov/docs/june08-ceqa.pdf Accessed on July 2, 2021*

[44] *U.S. EPA Greenhouse Gas Emissions. U.S. Greenhouse Gas Inventory Report: 1990-2014. Available at:* https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014 Accessed on: August 24, 2020

[45] *California Air Resources Board. GHG Current California Emission Inventory Data. Available at: https://ww2.arb.ca.gov/ghg-inventory-data Accessed on August 24, 2020*

statewide goal of reducing emissions to 1990 levels by 2020 and the adoption of regulations to require reporting and verification of statewide GHG emissions. Furthermore, on September 8, 2016, the governor signed SB 32 into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing the CARB to ensure that GHGs are reduced to 40 percent below 1990 levels by 2030. On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for construction projects.

MBARD has not developed a threshold of significance for GHG emissions. The MBARD recommends using an adopted GHG significance threshold from an adjacent air district, such as the Bay Area Air Quality Management District (BAAQMD). The BAAQMD CEQA Guidelines identify a project specific threshold of 1,100 metric tons per year.[46] However, this threshold was developed to achieve the State's 2020 target of 1990 GHG levels.

The project would not be constructed until 2022, thus the 2020 target is not appropriate for this project. BAAQMD has yet to publish a threshold for 2030 in response to SB 32 and the CARB Scoping Plan. In the interim, many lead agencies have been utilizing a threshold of significance that is 40% below the 2020 BAAQMD targets in their environmental documents. Consequently, for the purposes of this Initial Study, a bright-line threshold of 660 metric tons of carbon dioxide equivalent (CO_2e)[47] per year is utilized based on the GHG reduction goals of SB 32. This analysis amortizes the construction emissions over the lifetime of the project (30 years) and compares it to the bright-line threshold of 660 metric tons of CO_2e per year.

4.8.2 Discussion of Impacts

a) ***Less than Significant Impact.*** GHG emissions from the project would be produced from construction-related equipment emissions. Based on the nature of the project and short duration of construction, GHG emissions resulting from construction activities would be both minor and temporary. During operation, the lift station would operate off of the electrical power grid. While the project would have an incremental contribution to GHG emissions within the County and region, there would be no anticipated change in net GHG emissions from the pipeline in the County resulting from the proposed sewer line replacement, and the individual impact is less than significant.

b) ***Less than Significant Impact.*** Neither the State, MBARD, nor Monterey County have adopted GHG emissions thresholds or a GHG emissions reduction plan that would apply to the project. The project is not expected to generate GHG emissions that would exceed applicable thresholds. The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse

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[46] *Bay Area Air Quality Management District. CEQA Air Quality Guidelines. May 2017.*

[47] *Carbon dioxide equivalent (CO_2e) is a term for describing different greenhouse gases in a common unit. Carbon dioxide equivalent signifies the amount of carbon dioxide which would have the equivalent global warming impact.*

gases as described above. The project is a replacement project and would only temporarily generate GHG emissions over the six-week construction period. GHG emissions from off-road equipment and utility electrical usage are identified and planned for in the BAAQMD's 2017 Clean Air Plan as well as the BAAQMD's Source Inventory of Bay Area Greenhouse Gas Emissions.[48,49] A primary objective of the 2017 Clean Air Plan is to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The project would generate emissions similar to existing conditions and, therefore, impacts would be less than significant.

[48] *Bay Area Air Quality Management District. Final 2017 Clean Air Plan. Available at: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed on June 10, 2021.*

[49] *Bay Area Air Quality Management District. Source Inventory of Bay Area Greenhouse Gas Emissions – Base Year 2007. Available at: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx#:~:text=Methane%20(CH4)%20emissions%20from%20various,major%20sources%20of%20these%20emissions. Accessed on June 10, 2021.*

4.9 Hazards and Hazardous Waste

	HAZARDS AND HAZARDOUS MATERIALS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 two 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 site?	☐	☐	☐	☒
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?	☐	☐	☒	☐

4.9.1 Environmental Setting

The project is located south of the City of Carmel-by-the-Sea within the Greater Monterrey Peninsula Area. No facilities for permanent storage or transfer of hazardous waste are located in

the project vicinity. In the project site, hazardous waste is generated by households (paint products, motor oil, solvents, pesticides, oven cleaners and disinfectants).

The project site is surrounded by Carmel River State Beach and SR 1. No industrial zone or zoning district compatible with a hazardous waste site is located in the project vicinity. The project is not in the vicinity of any pipeline, nor on the route of an airline transporting potentially hazardous materials. As such the most probable exposure would be due to transport of hazardous materials on State highways (SR 1).

The project is located within the one-mile hazards corridor along SR 1. Residents and structures located within this buffer would potentially be exposed to hazardous materials if there was an incident during transport of such materials on SR 1. The project site is located within the Carmel Area as identified in the Monterey County Hazardous Materials Incident Response Plan. In the event of hazardous material incidents at the project site, the Monterey County Hazardous Materials Incident Response Plan would govern field operations and response.[50]

The purpose of the Monterey County Hazardous Materials Incident Response Plan is to establish specific emergency management policies and procedures for coordinating Monterey County's integrated response to hazardous materials incidents. The Monterey County Hazardous Materials Incident Plan is developed in accordance with the California Code of Regulations, Title 19, Division 2, Sections 2720-2728 as it relates to the implementation of the requirements of Chapter 6.95, Article 1, Sections 25500-25503 of the California Health and Safety Code. [51]

4.9.2 Discussion of Impacts

a) ***Less than Significant Impact.*** Project construction activities are expected to involve the routine transport, use, and disposal of hazardous materials (e.g., motor fuels, paints, oils, and grease) that could pose a significant threat to human health or the environment if not properly managed. Although small amounts of these materials would be transported, used, and disposed of during project construction, these materials are typically used in construction projects and are not considered acutely hazardous. Workers who handle hazardous materials are required to adhere to health and safety requirements enforced by the federal Occupational Health and Safety Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA). Hazardous materials must be transported to and from the project site in accordance with Resource Conservation and Recovery Act (RCRA) and U.S. Department of Transportation regulations. Hazardous

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[50] *Monterey County Hazardous Materials Incident Response Plan. January 2016. Available at: http://www.mcftoa.org/wp-content/uploads/2011/05/Monterey-County-Haz-Mat-Area-Plan-Final-January-2016.pdf Accessed on: July 19, 2021*

[51] *Monterey County Hazardous Materials Incident Response Plan. January 2016. Available at: http://www.mcftoa.org/wp-content/uploads/2011/05/Monterey-County-Haz-Mat-Area-Plan-Final-January-2016.pdf Accessed on: July 19, 2021*

materials must also be disposed of in accordance with RCRA regulations at a facility that is permitted to accept the waste. Because compliance with existing regulations is mandatory, project construction is not expected to create a significant hazard to public health or the environment through the routine transport, use, or disposal of hazardous materials.

During project operation, it is anticipated that the project would involve the use of hazardous materials that are typical of stormwater pumping facilities (e.g., oil and grease, hydraulic fluid). These materials would be used in small and localized amounts. As described above, the routine transport, use, and disposal of hazardous materials are subject to federal and State regulations. On the local level, the Hazardous Materials Management Services is the Certified Unified Program Agency (CUPA) that implements regulatory programs for sites that routinely use relatively large quantities of hazardous materials to ensure the safe storage, management, and disposal of such materials in accordance with the Unified Program in Monterey County. While the project is not expected to handle large quantities of hazardous materials, compliance with existing laws, regulations, and CUPA programs, as applicable, would be mandatory; therefore, project operations are not expected to create a significant hazard to public health or the environment through the routine transport, use, or disposal of hazardous materials.

As a result, impacts related to the routine transport, use, or disposal of hazardous materials during project construction and operation would be less than significant.

b) ***Less than Significant Impact.*** The proposed project would be replacing an aging sewer line with a new system that is closer to the houses it would service. The existing sewer pipeline is being replaced to prevent accidental spills of hazardous materials into the environment. This new system would tie into existing infrastructure to ensure continuity of service. The existing sewer would be kept in place during construction of the new system. The existing sewer line would be drained and flushed before removal to prevent any accidental release of effluent during the removal process. Therefore, impacts would be less than significant.

c) ***No Impact.*** There are no schools within one-quarter mile of the project site. The nearest school to the proposed project site is the Bay School Parent Co-Op Preschool, which is located approximately 0.4-mile south of the project site. Therefore, there would be no impacts on schools.

d) ***No Impact.*** The provisions of Government Code Section 65962.5 require the State Water Resources Control Board (SWRCB), Department of Toxic Substances Control, California Department of Health Services, and California Department of Resources Recycling and Recovery to submit information to the California Environmental Protection Agency pertaining to sites that were associated with solid waste disposal, hazardous waste disposal, and/or hazardous materials releases. The compilation of hazardous materials release sites that meet criteria specified in Section 65962.5 of the California Government Code is known as the Cortese List.

A regulatory database search for past hazardous material spills on properties within a half-mile of proposed project components was conducted. The SWRCB Geotracker database shows two incidents of leaking underground storage tanks (LUST) near the site at the CAWD Treatment Plant located approximately 0.5 mile northeast from the site. Gasoline was discovered in the monitoring well, adjacent to the LUST. The LUSTs were removed, and the area was remediated, and the case has been closed since April 2003. There are no instances of open and ongoing cases reported. A database search showed that there are no reported incidents of hazardous materials being released in the immediate vicinity of the proposed project. There are currently no hazardous materials release sites on the project site that meet the criteria for inclusion on the Cortese List. Therefore, the project would have no impacts related to development on a hazardous materials release site included on the Cortese List.[52,53]

e) ***No Impact.*** The project site is located more than 5 miles southwest of the Monterey Regional Airport. The project site is not located within an Airport Influence Area; therefore, project structures would not be considered a potential obstruction to aircraft. Furthermore, the project would not result in a substantial increase in bird populations, solar glare, misleading lighting, or other visual impairments in proximity to the airport's approach and departure zones. The proposed project would be replacing an aging sewer line with a new underground system that is closer to the houses it would service. All above-ground and exposed sections of the existing pipe would be removed from the site at ground level. All sections that remain buried would be abandoned in-place. There are no private airstrips in the project vicinity. Therefore, the project would have no impacts on the navigable airspace of public use airports and would not result in a safety hazard for people residing or working in the project site.

f) ***Less than Significant Impact.*** The proposed project is located in the backyards of approximately 20 homes in the Carmel Meadows neighborhood and in oak woodlands behind the residential development. The project site is not near or within any designated emergency access routes. Therefore, construction of the proposed project would not temporarily block or impair any existing emergency evacuation routes. Based on the project design impacts on the implementation of any emergency response and evacuation plans would be less than significant.

g) ***Less than Significant Impact.*** According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Viewer, the project site is not

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[52] *California State Water Resources Control Board "GeoTracker" database. Available at: http://geotracker.waterboards.ca.gov Accessed on: August 2, 2021.*

[53] *California Department of Toxic Substances Control "EnviroStor" database, Available at: http://www.envirostor.dtsc.ca.gov/public/ Accessed on: August 2, 2021.*

located in the area mapped as Very High Fire Hazard Severity Zone (VHFHSZ).[54] The nearest VHFHSZ is located approximately one mile northeast of the project site.[55] Furthermore, the project site is not located in a State Responsibility Area (SRA). The project site is surrounded by paved urbanized uses and the Carmel River bank. Therefore, impacts would be less than significant.

[54] *California Fire Hazard Severity Zone Viewer. Available at: https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414 Accessed on: August 2, 2021*

[55] *Ibid.*

4.10 Hydrology and Water Quality

	HYDROLOGY AND WATER QUALITY — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 off-site?	☐	☐	☒	☐
	(iii) create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
	(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?	☐	☐	☐	☒

4.10.1 Environmental Setting

According to RWQCB Water Quality Control Plan for the Central Coast Basin, the project site is located in the Carmel River Basin and discharges into Carmel Bay.

The project site is located in the Central Coast hydrological region, within the Carmel Valley Alluvial Groundwater Basin. The nearest surface water body is the Carmel River, located to the north-northeast. The Carmel River originates in the Santa Lucia Range of the Coast Ranges and flows generally north and west, and discharges into the Carmel Bay in the Pacific Ocean. The Monterey Peninsula area currently relies heavily on the Carmel River and Carmel Valley Aquifer located within the Carmel Valley Alluvial Groundwater Basin for its water supply.[56]

The Monterey Peninsula Water Management District (MPWMD) is the Groundwater Sustainability Agency for the Carmel Valley Alluvial Groundwater Basin. In the spring of 2016, the California Department of Water Resources (DWR) agreed with SWRCB determination that water in the basin flows through known and definite subterranean channels and is, therefore, not subject to Sustainable Groundwater Management Act (SGMA) requirements.[57] As a result, there is no available groundwater sustainability management plan for this basin.

4.10.2 Regulatory Setting

Clean Water Act

CWA (33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the Waters of the U.S. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and has given U.S. EPA the authority to implement pollution control programs. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. The proposed project is within the jurisdiction of the Central Coast RWQCB.

Section 402 of the Clean Water Act authorizes the California SWRCB to issue NPDES Construction General Permits for Storm Water (Construction General Permit Order 2009-0009-DWQ; as amended by 2010-0014-DWQ and 2012-0006-DWQ), referred to as the "Construction

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[56] *Bureau of Reclamation – Mid Pacific Region. 2017. Salinas and Carmel Rivers Basin Study. January 2017. Available at: https://www.mpwmd.net/asd/board/committees/watersupply/2017/20170208/02/Item-2-Exh-B.pdf Accessed on: June 15, 2021.*

[57] *Bureau of Reclamation – Mid Pacific Region. 2017. Salinas and Carmel Rivers Basin Study. January 2017. Available at: https://www.mpwmd.net/asd/board/committees/watersupply/2017/20170208/02/Item-2-Exh-B.pdf Accessed on: June 15, 2021.*

General Permit." Construction activities which disturb greater than 1 acre of land can comply with and be covered under the Construction General Permit provided that they:

- Develop and implement a SWPPP which specifies BMPs that will prevent construction pollutants from contacting stormwater and with the intent of keeping products of erosion from moving off site into receiving waters.
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs and maintain BMPs throughout construction.
- Implement BMPs to stabilize areas temporarily disturbed due to construction.

The SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Compliance tasks increase with a project's risk level as defined by the Construction General Permit. Increased compliance tasks under the adopted 2009 Construction General Permit include project risk evaluation, effluent monitoring, receiving water monitoring, electronic data submission of the SWPPP and all other permit registration documents, and a Rain Event Action Plan (REAP), which must be designed to protect all exposed portions of a project site within 48 hours prior to a qualifying rain event.

Section 401 of the CWA requires that any activity that may result in discharges of fill into a federal and State jurisdictional waterbodies be certified by the RWQCB. A 401 certification is issued in association with a Section 404 permit issued by the Corps for the same waterbodies. A 401 certification ensures that the proposed activity does not violate State and/or federal water quality standards. Under the CWA, federal jurisdiction over non-tidal waters extends up to the Ordinary High Water Mark (OHWM), which is defined as the line on the shore of streams and lakes established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. When adjacent wetlands are present, the Corps' jurisdiction extends beyond the OHWM to the limit of the adjacent wetlands. The USACE may issue either individual, site-specific permits or general, nationwide permits for discharge into Waters of the U.S. through Section 404.

Section 404 of the CWA requires a permit from the Corps for construction activities involving dredging or placement of any kind of fill material into waters of the U.S. or wetlands. As mentioned above, a certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the RWQCB.

When an application for a Section 404 permit is made, the applicant must show the project has:

- Taken steps to avoid impacts to wetlands or Waters of the U.S. where practicable;
- Minimized unavoidable impacts on Waters of the U.S. and wetlands; and
- Provided mitigation for unavoidable impacts.

Section 303(d) of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify "impaired" water bodies as those which do not meet water quality standards. States are required to compile this information in a list and submit to U.S. EPA for review and approval. An affected waterbody, and associated pollutant or stressor, is then prioritized in a list of impaired water bodies known as the 303(d) List. The CWA further requires the development of a Total Maximum Daily Load (TMDL) for each listing. A TMDL identifies the allowable pollutant loads from point sources and nonpoint sources that can be discharged and still meet water quality standards.

Porter-Cologne Water Quality Control Act

The State of California's Porter-Cologne Water Quality Control Act provides the basis for water quality regulation within California and assigns primary responsibility for the protection and enhancement of water quality to SWRCB and the nine RWQCBs. Under the Porter-Cologne Act, SWRCB and RWQCBs also have the responsibility of granting CWA NPDES permits and Waste Discharge Requirements (WDRs) for certain point-source and non-point discharges to waters. The Porter-Cologne Act allows SWRCB to adopt statewide Water Quality Control Plans and Basin Water Quality Control Plans, which serve as the legal, technical, and programmatic basis of water quality regulation statewide or for a particular region. The Water Quality Control Plans limit impacts on water quality from a variety of sources. The Basin Plan for the Central Coast Region is described below.

California Regional Water Quality Control Board, Central Coast Region—Basin Plan

RWQCB is responsible for implementing the *Water Quality Control Plan for the Central Coast Region* (Basin Plan), which includes Monterey County. The Basin Plan designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. The Basin Plan includes both narrative and quantitative water quality objectives that can differ depending on the specific beneficial uses being protected. Narrative objectives are established for parameters such as color, suspended and settleable material, oil and grease, biostimulatory substances, and toxicity. Numeric objectives can include such parameters as dissolved oxygen, temperature, turbidity, pH, and specific chemical constituents such as trace metals and synthetic organic compounds.

RWQCB implements the Basin Plan through the issuance and enforcement of WDRs and waivers of WDRs. WDRs may be issued to any entity that discharges waste that may affect the quality of any Central Coast surface water or groundwater. For discharges to waters protected under CWA, WDRs also could serve as a federally required NPDES permit (under CWA) to regulate waste discharges so that water quality objectives are met and to incorporate the requirements of other applicable regulations. Basin Plans are required to be reviewed every 3 years and provide the regulatory basis for determining WDRs and waivers of WDRs.

4.10.3 Discussion of Impacts

a) ***Less than Significant Impact.*** Construction activities would require ground disturbance for excavation of the trench new sewer line. As discussed in the Project Description, total

excavation quantities would be approximately 225 cubic yards (CY) of cut, expanding to nearly 250 CY of fill (assuming 1.1 expansion rate) creating a net fill of 25 CY, which would be removed or replaced on-site as needed. Soil removed would be stockpiled at the project site and, if not properly controlled, soil particles and other materials could be carried in stormwater runoff to drainage facilities, which could degrade water quality in the Carmel River and Carmel Bay. Standard construction measures recommended by the Monterey Countywide Water Pollution Prevention Program would be implemented to minimize pollutants carried from the project site in runoff.

Compliance with Monterey County Code (MCC) Chapter 16.12, Erosion Control, would require the project to prepare an Erosion Control Plan and minimize runoff from the project site. In addition, construction would require a NPDES Construction General Permit and the submittal a SWPPP pursuant to MCC Chapter 16.14, Urban Stormwater Quality Management and Discharge Control. The SWPPP is intended to minimize the amount of sediment and other pollutants associated with construction sites which are discharged in stormwater runoff. The SWPPP would include BMPs for erosion control, such as preventing runoff from unprotected slopes, keeping disturbed areas to a minimum, and installing check berms and desilting basins during construction activities, as necessary. With adherence to the contractor specifications and required SWPPP, potential adverse impacts associated with erosion and loss of topsoil would be less than significant.

The proposed project would not violate any water quality standards or waste discharge requirements, nor would it otherwise substantially degrade water quality, since the proposed project does not include any construction of infrastructure improvements or capacity increases.

The proposed project would not result in discharges that would potentially violate water quality standards or waste discharge requirements. The proposed project would have no direct effect on wastewater treatment requirements and would result in no impact. Indirect impacts from future construction of improvements would be addressed by construction project compliance with the provisions of the Construction General Permit, including preparation of a SWPPP and implementation of all identified BMPs; these would ensure short-term construction impacts associated with water quality standards and waste discharge requirements would be minimized. Water quality impacts during construction would therefore be less than significant, and operational water quality impacts would not change from current baseline conditions. Impacts would be less than significant.

b) ***No Impact.*** The project would not require use of groundwater supplies or affect groundwater recharge in the area. The proposed project would be replacing an aging sewer line with a new underground system that is closer to the houses it would service. The existing pipeline runs alternately in underground and above-ground segments. All above-ground and exposed sections of pipe would be removed from the site at ground level. All sections that remain buried would be abandoned in-place. The new pipeline's function is unchanged from the current condition and would not impede or interfere with

groundwater recharge or groundwater management. Therefore, the proposed project would have no impact on groundwater supplies.

c-i-iv) ***Less than Significant Impact***. The proposed project would not alter the course of a stream or river, nor would it add substantial impervious surface. The proposed project would be replacing an aging sewer line with a new underground system that is closer to the houses it would service. All above-ground and exposed sections of the existing pipe would be removed from the site at ground level. All sections that remain buried would be abandoned in-place. The new sewer line would be entirely belowground. Therefore, the project would not result in an increase in impermeable surfaces or an increase in runoff compared to existing conditions. The project would not cause a substantial change to the erosion and accretion patterns long-term because the pipeline improvements would not alter the existing drainage pattern of the area. Temporary construction impacts related to run-off from the cut soil stored on-site could occur, but standard measures from the Monterey Countywide Water Pollution Prevention Program and from the State Water Board's Construction General Permit would be implemented to ensure impacts from runoff would remain less than significant. The proposed project is located adjacent to the Carmel River, which is a special flood hazard area (Zone AE). However, because the proposed project consists of constructing a new pipeline that would be entirely belowground, it would not significantly change the existing site conditions and would not alter drainage patterns. Therefore, the proposed project would not result in flooding on- or off-site, create or contribute to new runoff, or significantly impede or redirect flood flows. Therefore, impacts would be less than significant.

d) ***Less than Significant Impact.*** Seiche and tsunami are short duration, earthquake-generated water waves in large, enclosed bodies of water and the open ocean, respectively. Mudflows typically occur on steep slopes where vegetation is not sufficient to prevent rapid erosion. The project site is located between an area of minimal flood hazard (Zone X) and a flood hazard area (Zone AE).[58] Due to its proximity to the Carmel Bay, the proposed project site is located in a tsunami inundation area; however, the proposed project would install new sewer lines that are subterranean, and all areas of the existing sewer line that are above-ground would be removed from the site at ground level. Approximately 400 feet of the existing pipeline would be maintained and is underground. Therefore, the project would not be subject to inundation as it would be designed to withstand floodwaters by being entirely below ground which would help reduce the risk of pipe rupture and release of pollutants into the Carmel River and Carmel Bay. Furthermore, the project would comply with the Monterey Countywide Water Pollution Prevention

[58] *Federal Emergency Management Agency. 2017. Firm Flood Insurance Rate Map: Monterey County Unincorporated Areas – Panel 06053C0316H. June 21, 2017. Available at: https://msc.fema.gov/portal/search?AddressQuery=G5HF%2BQ2%20Carmel%20Valley%20%20Manor%2C%20California#searchresultsanchor Accessed on: June 15, 2021.*

Program and the State Water Board's Construction General Permit. Impacts would be less than significant.

e) ***No Impact.*** The project site is located within the area subject to the Basin Plan. The Basin Plan lists action plans and policies to achieve water quality objectives, protect present and future beneficial water uses, protect public health, and prevent nuisance. As described under criteria a) above, the project will comply with applicable stormwater standards and permits that are specifically designed to reduce potential water quality impacts to a less-than-significant level. The project as proposed would not conflict with or obstruct implementation of the regional Basin Plan. Therefore, no impact related to obstruction of the Basin Plan would result.

As described in criteria b) above, the project would not utilize or decrease groundwater supplies at the project site or substantially interfere with groundwater recharge. In September 2014, SGMA was enacted to provide a framework for sustainable management of groundwater supplies by local authorities, with a limited role for intervention when necessary to protect the resource. As mentioned previously, the MPWMD is the Groundwater Sustainability Agency for the Carmel Valley Alluvial Groundwater Basin. In the spring of 2016, DWR agreed with the SWRCB determination that water in the basin flows through known and definite subterranean channels and is, therefore, not subject to SGMA requirements. As a result, there is no sustainable groundwater management plan or water quality control plan for this basin. Therefore, no impact would occur.

4.11 Land Use and Planning

	LAND USE AND PLANNING – Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

4.11.1 Environmental Setting

The project site is located in Carmel Meadows, a residential neighborhood south of the City of Carmel-by-the-Sea. Carmel Meadows is in Monterey County, though it is considered a bedroom community to the City of Carmel-by-the-Sea as it falls in the City's Sphere of Influence. Existing land uses adjacent to the project site consist of open space, medium-density single-family residences, and recreational uses. The project site is located in the backyards of about 20 homes in Carmel Meadows.

The proposed project would be consistent with the following applicable goals, policies, and objectives of the Monterey County Coastal Implementation Plan, the Carmel Valley Master Plan and the 2010 Monterey County General Plan:

Monterey County Coastal Implementation Plan

- **Policy 2.2.3.3:** New development on slopes and ridges within the public viewshed shall be sited within existing forested areas or in areas where existing topography can ensure that structures and roads will not be visible from major public viewpoints and viewing corridors. Structures shall not be sited on non-forested slopes or silhouetted ridgelines. New development in the areas of Carmel Highlands and Carmel Meadows must be carefully sited and designed to minimize visibility. In all cases, the visual continuity and natural appearance of the ridgelines shall be protected.
- **Policy 2.2.5.2** In order to provide for more visually compatible structures, the height limit in the Carmel Point Area should be limited to a maximum height of 18 feet from the natural average grade. To ensure protection of the viewshed, the maximum height of structures located in the Carmel Meadows area, including the Portola Corporation and Williams properties, shall be limited to 18 feet measured from natural average grade.
- **Policy 2.3.3.5**: Where private or public development is proposed in documented or expected locations of environmentally sensitive habitats, particularly those habitats identified in General Policy No. I, field surveys by qualified individuals or agency shall be required in order to determine precise locations of the habitat and to recommend mitigating

measures to ensure its protection. This policy applies to the entire segment except the internal portions of Carmel Woods, Hatton Fields, Carmel Point (Night heron site excluded), Odello, Carmel Meadows, and Carmel Riviera. If any habitats are found on the site or within 100 feet from the site, the required survey shall document how the proposed development complies with all the applicable habitat policies.

Carmel Valley Master Plan

- **Policy CV-1.18:** Facilities classified as either Public/Quasi-Public or Special Use (such as schools, churches, hospitals, convalescent homes, rehabilitation centers, hospice facilities, emergency facilities, and public facilities such as community halls) may be considered in any land use category provided that they meet the following criteria:
    a. Low visibility.
    b. Safe and unobtrusive access away from pedestrian traffic areas.
    c. Low noise impact on surrounding uses.
    d. Development should follow a rural architectural theme with design review.
    e. Conform to all other Plan requirements.
- **Policy CV-1.20:** Design ("D") and site control ("S") overlay district designations shall be applied to the Carmel Valley area. Design review for all new development throughout the Valley, including proposals for existing lots of record, utilities, heavy commercial, and visitor accommodations, but excluding minor additions to existing development where those changes are not conspicuous from outside of the property, shall consider the following guidelines:
    a. Proposed development encourages and furthers the letter and spirit of the Master Plan.
    b. Development either shall be visually compatible with the character of the valley and immediate surrounding areas or shall enhance the quality of areas that have been degraded by existing development.
    c. Materials and colors used in construction shall be selected for compatibility with the structural system of the building and with the Monterey County General Plan Carmel Valley Master Plan October 26, 2010 – Amended as of February 12, 2013, Page, Carmel Valley Master Plan -5 appearance of the building's natural and man-made surroundings.
    d. Structures should be controlled in height and bulk in order to retain an appropriate scale.
    e. Development, including road cuts as well as structures, should be located in a manner that minimizes disruption of views from existing homes.
    f. Minimize erosion and/or modification of landforms.
    g. Minimize grading through the use of step and pole foundations.

2010 Monterey County General Plan

- **Policy LU-5.7:** Industrially designated areas shall be compatible with surrounding land uses.
- **Policy LU-1.11:** Development proposals shall be consistent with the General Plan Land Use Map designation of the subject property and the policies of this plan.
- **Policy PS-13.2:** All new utility lines shall be placed underground, unless determined not to be feasible by the Director of the Resource Management Agency.
- **Policy PS-13.3:** Existing utility lines shall be placed underground whenever feasible.

4.11.2 Discussion of Impacts

a) ***No Impact.*** The proposed project involves modifications to an existing sewer system that collects sewage from the surrounding residential houses in Carmel Meadows. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River. The project would be constructed within the backyards of 20 homes in Carmel Meadows and would not physically divide an established community. As stated above, the proposed project is located within unincorporated Monterey County which governs the planning and development of the proposed project area. The approval of the proposed project would not change the area's General Plan land use designations or impact an established community. No impacts would occur.

b) ***Less than Significant Impact.*** A proposed project would have a significant impact if it were to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project is located within Monterey County. Per California Government Code 53091, building and zoning ordinances of a County or City do not apply to the location or construction of facilities for the production, storage, or transmission of water, wastewater, or electrical energy by a local agency. Therefore, the project is only evaluated for consistency with the 2010 Monterey County General Plan and the Carmel Valley Master Plan. The proposed project is subject to several local policies, plans, and regulations, as described above. The existing pipeline is near the end of its useful life. The primary objective of the proposed project consists of removing the above-ground sections of the existing pipeline and constructing a new sewer line that would be closer to the houses it serves, and away from the Carmel River. As a result, the proposed project would be consistent with the goals, policies, and objectives of the Carmel Valley Master Plan and the 2010 Monterey County General Plan and would not conflict with underlying land use plan and zoning designations. The impact would therefore be less than significant.

4.12 Mineral Resources

	MINERAL RESOURCES — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

4.12.1 Environmental Setting

The State Surface Mining and Reclamation Act of 1975 requires the State Geologist to classify mineral areas in the State, and the State Mining and Geology Board to designate mineral deposits of regional or statewide significance. The 2010 Monterey County General Plan states that there are no lands within the Carmel Valley Master Plan that are designated or mapped by the State Geologist.[59]

4.12.2 Discussion of Impacts

a, b) ***No Impact.*** The project site is not in or adjacent to any important mineral resource areas since there are no known mineral resources of value designated by the State Geologist in this area. Furthermore, the development of the proposed project would not preclude future excavation of oil or minerals should such extraction become viable. As such, there would be no loss of availability of known mineral resources and no impacts to mineral resources.

[59] *Monterey County 2007 General Plan. Draft Environmental Impact Report. Section 4.5 Mineral Resources. Available at: <https://www.co.monterey.ca.us/home/showdocument?id=43994> Accessed May 8, 2020.*

4.13 Noise

	NOISE — Would the project result in:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 Environmental Setting

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

There are several methods of characterizing sound. The most common in California is the A-weighted decibel scale or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors include Maximum Noise Level (L_{max}), the energy-Equivalent Noise Level (L_{eq}), and the Day-Night Average Noise Level (L_{dn}). The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For L_{eq}, the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Day/Night Average Sound Level, (sometimes also referred to as DNL), is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 p.m. and 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour A-weighted noise level from midnight to midnight after the addition of five dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Construction Noise

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, the distance between construction noise sources and noise sensitive receptors, and shielding. Construction activities for individual projects are typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time. Where noise from construction activities exceeds 60 dBA L_{eq} and exceeds the ambient noise environment by at least five (5) dBA L_{eq} at noise-sensitive uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

The sensitive receptors closest to the project site are single-family residences along Ribera Road. The project would be constructed in close proximity to these single-family residences given that pipeline would be constructed in their backyards.

Construction Vibration

Construction operations are potential sources of substantial ground vibration depending on the distance from sensitive receptors, and the type of construction. Ground vibration from construction may consist of rapidly fluctuating motions or waves, which are also measured in decibels. The abbreviation “VdB” is used in this document for vibration decibels to reduce confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences.

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any

sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} – A L_{eq}, or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max} – The maximum instantaneous noise level experienced during a given period of time.
- L_{min} – The minimum instantaneous noise level experienced during a given period of time.
- CNEL – The Community Noise Equivalent Level is a 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. For residential uses, environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA.[60] Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically

[60] *Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services).*

55-60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65-80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically "hard" locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically "soft" locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.[61]

Table 3 illustrates typical noise levels from construction equipment at a reference distance of 50 feet. Noise levels from construction equipment attenuate at a rate of six dBA per doubling of distance. Therefore, the noise levels at a distance of 100 feet would be 6 dBA less than those shown in Table 3. Construction equipment would generate maximum noise levels of approximately 101 decibels (dB) at 50 feet.

Construction activities would generate temporary noise from equipment use; the most common noise generated would be from mobile diesel equipment such as excavators, pick-up trucks, a backhoe, small dump trucks, a skip loader, truck-mounted pipe-relining equipment, a boom truck and possibly hydraulic hammers. Activities would be restricted to the hours of 8:00 A.M. to 5:00 P.M. Monday through Friday.

[61] *National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.*

Construction noise levels may periodically exceed noise standards in the existing Noise Ordinance, but the temporary noise from construction would not cause a substantial increase in ambient noise or expose sensitive receptors to unacceptable noise levels for long periods of time.

Table 3 Construction Equipment Noise Generation

Equipment	Typical Noise Level (dBA) 50 ft from Source	Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	81	Jack Hammer	88
Backhoe	80	Loader	85
Ballast Equalizer	82	Paver	89
Ballast Tamper	83	Pile-driver (Impact)	101
Compactor	82	Pile-driver (Sonic)	96
Concrete Mixer	85	Pneumatic Tool	85
Concrete Pump	82	Pump	76
Concrete Vibrator	76	Roller	74
Crane, Derrick	88	Saw	76
Crane, Mobile	83	Scarifier	83
Dozer	85	Scraper	89
Generator	81	Shovel	82
Grader	85	Spike Driver	77
Impact Wrench	85	Truck	88
Source: Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*, 2006			

Noise-Sensitive Receptors

Noise-sensitive land uses are generally considered to include areas where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors consist predominantly of residential dwellings the proposed project will serve.

Existing Noise Conditions

In general, the project site is a quiet location. The primary noise sources in the project site vicinity are motor vehicles (e.g., automobiles, buses, and trucks) along Ribera Road and SR 1. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels are generally highest during the daytime and rush hour unless congestion slows traffic speeds substantially.

4.13.2 Regulatory Setting

County of Monterey Code of Ordinances

The County of Monterey Noise Control Ordinance is included in Chapter 10.60 of the County's Code of Ordinances. The County's Noise Ordinance establishes a maximum noise-level standard of 85 dB at 50 feet for non-transportation noise sources. The County's noise ordinance also includes nighttime noise limitations for non-transportation noise sources. During the nighttime hours between 10:00 p.m. and 7:00 a.m., noise levels shall not exceed 45 dBA L_{eq} or 65 dBA L_{max}, measured at the property line of the noise source. Noise generated by some activities, including but not limited to, devices associated with religious services, emergency vehicles, commercial agricultural operations, and outdoor gatherings, are exempt. The ordinance applies in coastal and non-coastal unincorporated areas of the County.

Chapter 10.60 of the MCC enforces construction and operational noise regulations. Section 10.60.030 prohibits the operation of machinery that exceeds 85 dBA at 50 feet. MCC Section 10.60.040 limits nighttime noise to 45 dBA L_{eq} and 65 dBA L_{max} at 50 feet between 9:00 p.m. and 7:00 a.m. The MCC does not include quantitative standards for operational ground borne vibration impacts.

2010 Monterey County General Plan

The 2010 Monterey County General Plan contains a land use and noise compatibility matrix (shown in Table 4), which summarizes the normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. The land use designation for the project is Medium Density Residential. The project site is adjacent to residential uses, Agricultural Preservation Area, and Scenic and Natural Resources Recreation. According to the County's noise standards shown in Table 4, ambient noise levels up to 60 dBA CNEL or less are normally acceptable for residential uses, which is the most stringent of the adjacent land uses to the pipeline alignment.

Table 4 Land Use Noise Compatibility Matrix

	Community Noise Equivalent Levels (DNL or CNEL, dBA)			
Land Use Categories	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Residential (Low-Density Single-Family, Duplex,	<60	55-70	70-75	75+

	Community Noise Equivalent Levels (DNL or CNEL, dBA)			
Land Use Categories	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Mobile Homes)				
Residential (Multi-Family)	<65	60-70	70-75	75+
Transient Lodging (Hotels, Motels)	<65	60-70	70-75	75+
Schools, Libraries, Churches, Hospitals, Nursing Homes	<70	60-70	70-80	80+
Auditoriums, Concert Halls, Amphitheaters	N/A	<70	65+	N/A
Sports Arena, Outdoor Spectator Sports	N/A	<75	70+	N/A
Playgrounds, Neighborhood Parks	<70	67.5-75	72.5+	N/A
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<75	70-80	N/A	80+
Office Buildings, Business Commercial and Professional	<70	67.5-77.5	75+	N/A
Industrial, Manufacturing, Utilities, Agriculture	<75	70-80	75+	N/A

Notes: N/A = Not Applicable (The County of Monterey has not established noise level ranges for these categories.)

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: County of Monterey 2010

The following noise-related policies are provided in the 2010 Monterey County General Plan:

- **Policy S-7.9:** No construction activities pursuant to a County permit that exceed "acceptable" levels listed in Policy S-7.1 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. Noise protection measures, in the event of any identified impact, may include but not be limited to:
  - Constructing temporary barriers, or
  - Using quieter equipment than normal.
- **Policy S-7.10:** Construction projects shall include the following standard noise protection measures:
  - Construction shall occur only during times allowed by ordinance/code unless such limits are waived for public convenience;
  - All equipment shall have properly operating mufflers; and
  - Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical.

4.13.3 Discussion of Impacts

a) ***Less than Significant Impact with Mitigation Incorporated.*** Noise from project construction could impact adjacent existing residential uses. Construction of the project would result in short-term noise increases in the project vicinity. By nature, the proposed project is not anticipated to generate a substantial source of operational noise (i.e., underground pipeline). Future improvements would be subject to the 2010 Monterey County General Plan policies that limit noise impacts through CEQA compliance and permitting. Potential noise impacts from construction activities would be temporary and can be regulated by standard mitigation practices, conditions of approval and BMPs that are imposed as part of a permit process. Noise impacts which could occur during construction can be mitigated to a less-than-significant level with the implementation of Mitigation Measure NOISE-1, below.

Mitigation Measure NOISE–1: Construction Noise

CAWD shall incorporate the following practices into the construction documents to be implemented by the project contractor:

- Construction hours shall be limited to 8:00 A.M. to 5:00 P.M. Monday through Friday.
- Notify businesses, residences, and noise-sensitive land uses adjacent to construction sites of the construction schedule in writing. Designate the County's construction manager as responsible for responding to any local complaints about construction noise. The construction manager shall determine the cause of the noise complaints (for example starting too early,

or a bad muffler) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the construction manager at the construction site.

- Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures:
  - Use heavy-duty mufflers for stationary equipment and barriers around particularly noisy areas of the site or around the entire site;
  - Where feasible, use shields, impervious fences, or other physical sound barriers to inhibit transmission of noise to sensitive receptors;
  - Locate stationary equipment to minimize noise impacts on the community; and
  - Minimize backing movements of equipment.
- Use quiet construction equipment whenever possible.
- Prohibit unnecessary idling of internal combustion engines.

With incorporation of Mitigation Measure NOISE-1, the proposed project would not 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. Impact would be less than significant with mitigation incorporated.

b) **Less Than Significant Impact.** No regional and local regulations address vibration or provide numerical thresholds for identifying ground borne vibration impacts. In the absence of local standards for construction equipment vibration, the evaluation is based on the vibration thresholds established by the California Department of Transportation (Caltrans). For risk of architectural damage to historic buildings and structures, this analysis applies a threshold of 0.12 inch/second (in/sec) peak particle velocity (PPV) and a threshold of 0.3 in/sec PPV for all other buildings.[62] The potential project construction equipment that would create vibration impact include loaded trucks and hydraulic hammer. Loaded trucks and hydraulic hammer would generate vibration of 0.076 in/sec PPV and 0.035 in/sec PPV or less at 25 feet, respectively.[63, 64] There is no historic building located in the project vicinity. Project construction would occur within the backyards of the residences. Project construction would be at least 25 feet from the residential structures

[62] *California Department of Transportation. April 2020. Transportation and Construction Vibration Guidance Manual.*

[63] *Ibid.*

[64] *Jackhammer would generate* vibration of 0.035 in/sec PPV at 25 feet. Hydraulic hammer is anticipated to have a less vibration impact than jackhammer.

in the project vicinity. Project equipment vibration level to the structures would be less than the 0.3 in/sec PPV threshold. Impacts would be less than significant.

c) ***No Impact.*** The nearest public airport to the project site is the Monterey Regional Airport, located approximately 5.7 miles to the southwest. This distance precludes the possibility that the project would expose people residing or working in the project site to excessive noise in combination with aviation noise. No impacts would occur.

4.14 Population and Housing

	POPULATION AND HOUSING — Would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant Impact***	***No Impact***
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?	☐	☐	☐	☒

4.14.1 Environmental Setting

The project site is zoned Medium-Density Residential (2 units per acre), with a design control overly and an 18-foot height limit. The Carmel Area Land Use Plan notes that Carmel Meadows is distinctly separated from the Carmel urban area by the Carmel River and agricultural land and, like Carmel Highlands, should be considered a residential enclave. The Carmel Meadows area primarily consists of Medium-Density Residential development.[65]

4.14.2 Discussion of Impacts

a, b) ***No Impact.*** The proposed project involves modifications to an existing sewer system that collects sewage from the surrounding residential houses in Carmel Meadows. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be closer to the houses it serves, moving it farther away from the Carmel River. The project would be constructed within the backyards of 20 homes in Carmel Meadows and would not displace people or housing. There is no expansion of sewer capacity associated with this project and the new sewer line would continue to serve the same residents in the Carmel Meadows neighborhood as are served by the existing system. The project removes and replaces existing infrastructure and does not increase service capacity that would induce unplanned population growth. The project does not propose demolition of existing housing. Therefore, the project would not displace substantial numbers of existing people or housing. As the project does not include new housing, nor induce population growth, it

[65] *Carmel Area Land Use Plan. 1983. Updated/Printed December 1999Local Coastal Program. Available at: https://www.co.monterey.ca.us/home/showdocument?id=37889 Accessed on August 2, 2021*

would not result in a substantial increase in population or housing units in the County. No impacts would occur.

4.15 Public Services

PUBLIC SERVICES — Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

4.15.1 Environmental Setting

Fire Department

The unincorporated Monterey County is within the Cypress Fire Protection District (CFPD). Under contract with the CFPD, the CAL FIRE provides primary fire protection service to the vicinity of the proposed project site. The closest CAL FIRE station to the proposed project area is the Rio Road Station at 3775 Rio Road, Carmel, which is located approximately one-mile northeast of the proposed project site. The Carmel Hill Forestry and CAL FIRE Station are located near the SR 1 and westbound Highway 68 interchange. The station is approximately 3 miles north of the proposed project site. In addition, the City of Carmel fire station (with secondary responsibility via a shared service agreement) is located approximately 1.6-mile to the north.

Police Department

The proposed project site is in the unincorporated area of Monterey County and would be served by the Monterey County Sheriff's Office Coastal Station located in Monterey on Aguajito Road, approximately 5 miles northeast of the project site. The Coastal Station's estimated response time is varied depending on the location, number of personnel on duty, and time of the call; however, the general range is five to ten minutes.

Within Carmel River State Beach, the State Parks employees provide maintenance, waste removal, and public safety/police patrol. The closest ranger station to the proposed project site is at Point Lobos, approximately one mile south. A minimum of one public service patrol ranger

is stationed there at all times of the day and night to respond to emergency calls. The local district of State Parks office is located approximately 5 miles north of the site at 2211 Garden Road, Monterey, CA 93940, where the full staff for all local parks is based.

Schools

The public school closest to the project site is the Carmel River Elementary School, located over 0.5 mile north of the proposed project site.

Parks and Recreational Facilities

Almost 14 percent of the County's land area, 293,781 acres, is devoted to park and recreation facilities operated by various governmental entities. The County parks system, managed by the Parks Department, makes up about 10 percent of the County's total park acreage. There are currently eight county regional parks in the County which offer a rich variety of recreational opportunities for residents and tourists. Expanded park and recreational opportunities must be provided to accommodate future needs within the County.[66]

4.15.2 Discussion of Impacts

a i-v) ***Less than Significant Impact.*** Given the proposed project would not permanently increase the existing residential or employment population in the County, the project would not result in a long-term increase in the demand for public services or require construction of new governmental facilities. The purpose of the project is to modify sewage water collection in the surrounding residential areas served by the sewer line. The project would remove the existing pipeline which runs alternately in underground and above-ground segments. All of the above-ground and exposed sections of pipe will be removed from the site at ground level. All sections that remain buried would be abandoned in place, and vegetation removal would not be required. Since the project does not include development of structures or infrastructure that would directly or indirectly increase the population in Monterey County, there would be less than significant impacts to the service ratios for facilities and staff for public services, including fire protection, police protection, schools, parks, or other public facilities.

[66] *Monterey County General Plan. 2010. Available at: https://www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/land-use-regulations/2010-general-plan*

4.16 Recreation

	RECREATION — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	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)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 Environmental Setting

Multiple federal, State, county governments and local districts own and operate parks, recreational facilities, and open spaces in Monterey County. Management agencies include the U.S. National Parks Service (NPS), the U.S. Forest Service (USFS), Bureau of Land Management (BLM), California State Parks (CSP), Monterey County, and local park agencies and districts. The County parks system encompasses about 10% of Monterey County's total park acreage.[67]

No parks or recreational facilities are located within the project site. The proposed project would be located in the backyards of nearly 20 homes overlooking the Carmel River in the Carmel Meadows Subdivision. The proposed project involves modifications to an existing sewer system that collects sewage from the surrounding residential houses. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be closer to the houses it serves, and away from the Carmel River. The nearest recreational facility to the project site is the Carmel Meadows Trail, located roughly 700 feet southwest of the project site.

4.16.2 Discussion of Impacts

a, b) ***No Impact.*** Given that the proposed project would not permanently increase the existing residential or employment population in the County, the project would not increase the use of nearby recreational facilities. The purpose of the project is to modify and improve sewage water collection in the surrounding residential areas. Construction activities would

[67] *Monterey County General Plan. 2010. Public Services Element. Available at: https://www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/land-use-regulations/2010-general-plan*

be temporary and would not disrupt or preclude any recreational activities or cause nearby residents to seek other recreational outlets. No impacts would occur.

4.17 Transportation

	TRANSPORTATION — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 section 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?	☐	☐	☒	☐

4.17.1 Environmental Setting

The project site is located in a quiet residential neighborhood in the backyards of nearly 20 homes overlooking the Carmel River in the Carmel Meadows Subdivision. The 20 homes are along the north side of Rivera Road from 2795 Ribera Road on the west end to 2935 Ribera Road, including the Mariposa Drive on the eastern portion of the site. The existing sewer laterals flow downslope and northward, away from the homes and properties on Ribera Road, into an eight-inch ductile iron collector line which is adjacent to the restored Carmel River Lagoon. Much of the existing sewer collector line is above-ground and vulnerable to flooding. Damage to the current system poses threat of contamination to the estuary. The proposed project would construct a new sewer line that would be placed higher up the slope and be closer to the houses it serves. It would also be moved farther away from the Carmel River.

The project is located within the Greater Monterey Peninsula Area in Monterey County. The project area is served by SR 1, which is a two- to four- lane highway that runs north-south, and Ribera Road, a local residential street. Traffic volumes near the intersection of SR 1 and Ribera Road are approximately 1,320 during AM peak hours and 1,535 during PM peak hours.[68]

[68] *Transportation Agency for Monterey County. Traffic Counts. Available at: https://www.tamcmonterey.org/traffic-counts. Accessed on September 8, 2021.*

Pedestrian/Bicycle Routes

The primary pedestrian and bicycle trail in the vicinity of the project site is the Carmel Meadows Trailhead, which runs west of the project site adjacent to beach starting approximately 0.42 mile southwest of the project site.

The Transportation Agency for Monterey County

The Transportation Agency for Monterey County (TAMC) is the designated Congestion Management Agency (CMA), Regional Transportation Planning Agency (RTPA), Local Transportation Commission (LTC), and Service Authority for Freeways and Expressways (SAFE) for Monterey County. The mission of TAMC is to proactively plan and fund a transportation system that enhances mobility, safety, access, environmental quality, and economic activities by serving the needs of Monterey County residents, businesses, and visitors. TAMC prepares the Regional Transportation Plan (RTP) every four (4) years, which provides a basis for actions to allocate State and federal funding to transportation projects within Monterey County.

4.17.2 Discussion of Impacts

a) ***Less than Significant Impact.*** The proposed project would not directly result in any construction of infrastructure improvements that would directly impact transportation, conflict with applicable General Plan and Area Plan policies or a congestion management plan. Further, indirect impacts due to improvements to the pipeline system are not anticipated to result in post-construction traffic or transportation impacts due to the nature of these potential projects (i.e., underground pipelines) are not anticipated to generate operational traffic. Construction would be temporary and relatively low, all work within roads would require encroachment permits though the applicable jurisdiction, as well as traffic control measures and flagmen, consistent with each permit. This is considered a less than significant impact. Construction of the proposed project would last approximately six-week. CAWD has identified a vacant lot at 2930 Ribera Road that could be used as the primary staging area, pending landowner approval. This would provide a proximate staging area near the proposed lift-station with nearby access to the pipeline alignments. Access to the pipeline alignments would be via Mariposa Drive on the east, and further west through a utility easement between 2845 and 2855 Ribera Road, at the end of Meadow Way. An existing footpath directly adjacent to the majority of the existing pipeline would be used to provide access from an eastern staging area at the Mariposa Drive, and an existing dirt access road on the western end that connects the sewer line to the CAWD pump station which is accessed via the cul-de-sac at Calle La Cruz. This dirt access road would allow partial access for limited staging, vehicles, and equipment from the west.

Given that the proposed project would not permanently increase traffic on local roads or highways and would maintain all lanes of traffic on all main roads at all times during construction, the proposed project would not result in long-term traffic increases, and impacts would be less than significant.

b) ***Less than Significant Impact.*** A significant impact may occur if the proposed project were to be inconsistent with provisions outlined in CEQA Guidelines section 15064.3, subdivision (b), which sets forth criteria for analyzing transportation impacts. Under the CEQA Guidelines, a lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including a qualitative analysis.

The proposed project would have no impacts on vehicle miles traveled in and around the project site on an operational level. The small life station and new sewer line would require very little maintenance once it is operational, and maintenance activities would be consistent with current baseline conditions.

Construction traffic (equipment and materials transport and daily worker traffic) would slightly increase traffic on local roadways during the temporary six-week construction phase of the proposed project. Temporary construction traffic would be limited to equipment delivery, material transport, and a few employee vehicles on a daily basis, which would be parked in the staging area identified by CAWD (a vacant lot at 2930 Ribera Road), and thus out of the way of main streets.

The temporary construction-related traffic would not result in a noticeable increase in traffic on local roads. Vehicles transporting equipment and materials to the project site could cause slight delays for travelers as the construction vehicles would be slow to turn onto Ribera road from Cabrillo Highway (SR 1), but no temporary lane closures or detours would be required. BMPs to warn pedestrians and bicyclists that use the surrounding roads for recreational purposes, as described in the Project Description, would be in place during the construction phase to alert motorists to potential delays. These measures would include advance warnings signs such as reflective signs, changeable message boards, cones, and/or barricades. With these measures and the temporary nature of construction-related traffic, impacts on traffic would be less than significant.

c) ***No Impact.*** The proposed project does not require features or structures that are not already characteristic of the baseline condition. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be closer to the houses it serves, and away from the Carmel River. The proposed work would not bring new traffic or travel to the area or introduce design features that are not already present, and the proposed uses are the same as those that area already in place and are therefore compatible. No impacts would occur in this area.

d) ***Less than Significant Impact.*** The proposed project is located in the backyards of roughly 20 homes in the Carmel Meadows area and is not near or within any designated emergency access routes. During the temporary construction period of six weeks, minor delays due to slower moving construction vehicle traffic may be experienced for emergency access to the residences in the project vicinity in which project work would occur. All lanes would remain open on all roads and no detours would be required. As stated in the standard construction BMPs outlined in the Project Description, the County or its contractor would notify and coordinate with law enforcement and emergency service

providers prior to the start of construction to ensure minimal disruption to service during construction. The contractor would install advance warning signs to alert cars, pedestrians and bicyclists of the work zone. Due to this and the short-term nature of the construction, impacts would be less than significant.

4.18 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES — Would the project?	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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 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)?	☐	☒	☐	☐
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.	☐	☒	☐	☐

4.18.1 Environmental Setting

Background

For the purposes of this analysis, the term *tribal cultural resource* is defined as follows:

> Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), or a local register of historical resources.

This section relies on the information and findings presented in *Cultural Resources Inventory Report: Carmel Meadows Lift Station Project, Monterey County, California* (Appendix C).[69] The cultural resources report details the results of the cultural resources study, which examined the environmental, ethnographic, and historic background of the project site, emphasizing aspects of

[69] *ESA. 2021. Carmel Meadows Lift Station and Sewer Replacement Project, Monterey County, California – Cultural Resources Inventory Report. June 2021.*

human occupation.

Native American Correspondence

WRA contacted NAHC on March 25, 2020 in request of a search of the NAHC's Sacred Lands File (SLF) and a list of Native American representatives who may have interest in the project. The NAHC replied to WRA on March 27, 2020, and provided a list of seven Native American contacts representing five California Native American tribes: (1) Amah Mutsun Tribal Band, (2) Costanoan Rumsen Carmel Tribe, (3) Esselen Tribe of Monterey County, (4) Indiana Canyon Mutsun Band of Costanoan, and (5) Ohlone/Costanoan-Esselen Nation. All individuals named by the NAHC were contacted and one responded, requesting additional information. The NAHC reply also stated that the SLF has record of sacred sites in the vicinity of the project site and that all the tribes whose contact information was provided should be contacted regarding the sacred sites. These sacred sites may be associated with the nearby Mission San Carlos Borromeo del Rio Carmelo. The cultural resources report conducted for the proposed project provides documentation of correspondence with Native American representatives to date.

No California Native American tribes previously requested notification regarding CAWD projects for potential consultation under PRC § 21080.3 (i.e., AB 52). Therefore, no formal consultation pursuant to PRC § 21080.3 was required for the proposed project. However, outreach was made to all NAHC identified tribes and two requests for consultation were received: one on October 28, 2020, from the Esselen Tribe of Monterey County, and the other on June 29, 2021, from the Indian Canyon Band of Costanoan Ohlone People. CAWD communicated with each of the tribal representatives and recognizes their requests that tribal monitors be present during excavation.

4.18.2 Regulatory Setting

California Environmental Quality Act

CEQA (codified at PRC § 21000 *et seq.*) is the principle statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a project would have a significant effect on the environment, including tribal cultural resources. Under CEQA (PRC § 21084.1), a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

Assembly Bill 52 and Tribal Cultural Resources

Impacts to tribal cultural resources also are considered under CEQA (PRC § 21084.2, also see AB 52). Under CEQA, a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (PRC § 21084.2). PRC § 21074(a) defines a tribal cultural resource as any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    - Included or determined to be eligible for inclusion in the California Register; or
    - Included in a local register of historical resources, as defined in PRC § 5020.1(k).

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of [PRC] § 5024.1. In applying these criteria, the lead agency would consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria of PRC § 21074(a) is also a tribal cultural resource if the landscape is geographically defined in terms of the size and scope. A historical resource as described in PRC § 21084.1, a unique archaeological resource as defined in PRC § 21083.2, or a non-unique archaeological resource as defined in PRC § 21083.2 may also be a tribal cultural resource under CEQA if it meets the criteria identified in PRC § 21074(a).

AB 52 requires CEQA lead agencies to analyze the impacts of projects on tribal cultural resources separately from impacts on archaeological resources (PRC § 21074 and 21083.09) because archaeological resources have cultural values beyond their ability to yield data important to prehistory or history. AB 52 also defines tribal cultural resources in a new section of the PRC (§ 21074; see above). Lead agencies must engage in additional consultation with California Native American Tribes (PRC § 21080.3.1, 21080.3.2, and 21082.3).

To determine potential impacts on tribal cultural resources, a project's lead CEQA agency is required to conduct formal consultation with relevant California Native American Tribes who have requested that the lead agency inform them of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe. When such consultation is conducted, the notification of the project shall be in writing and sent within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, and Native American Tribe recipients shall have 30 days from receipt of the formal notification to request consultation (PRC § 21080.3.1 and 21080.3.2).

CEQA requires that such consultation include project alternatives, mitigation measures, or significant effects, if requested by a California Native American Tribe, and that consultation would be considered concluded when either the parties agree to measures to mitigate or avoid a significant effect, or the agency concludes that mutual agreement cannot be reached concerning appropriate measures to be taken that would mitigate or avoid a significant effect. Any such measures shall be recommended for inclusion in the environmental document and adopted mitigation monitoring program if determined to avoid or lessen a significant impact on a tribal cultural resource, and if it is determined that a project may have a significant impact on a tribal cultural resource the environmental document would be required to discuss whether the project has a significant impact on an identified tribal cultural resource and whether feasible alternatives or mitigation measures avoid or substantially lessen the impact on the identified tribal cultural resource (PRC § 21080.3.2).

The following examples of mitigation for potential impacts on tribal cultural resources are included in CEQA (PRC § 21084.3):

- Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Protecting the resource.

CEQA states that the preference will be for avoiding damaging effects to tribal cultural resources (PRC § 21084.3[a]).

As discussed above, outreach to Native American was made to all NAHC identified tribes. The Esselen Tribe of Monterey County and the Indian Canyon Band of Costanoan Ohlone People responded to trial construction notification and requested tribal monitors to be present during excavation.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1[a]). The criteria for eligibility for the California Register are based upon the criteria for listing on the National Register of Historic Places (National Register) (PRC § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a cultural resource must be significant at the local, State, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must be of sufficient age, and retain enough of its historic character or appearance (integrity) to convey the reason for its significance. Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historic resources;
- Historic resources contributing to historic districts; and
- Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Public Resources Code § 5097

PRC § 5097.99, as amended, states that no person shall obtain or possess any Native American artifacts or human remains that are taken from a Native American grave or cairn. Any person who knowingly or willfully obtains or possesses any Native American artifacts or human remains is guilty of a felony, which is punishable by imprisonment. Any person who removes, without authority of law, any such items with an intent to sell or dissect or with malice or wantonness is also guilty of a felony which is punishable by imprisonment.

California Native American Historic Resource Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to $50,000 per violation, for persons who unlawfully and maliciously excavates upon, removes, destroys, injures, or defaces a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register.

California Health and Safety Code Section 7050.5

Section 7050.5 of the California Health and Safety Code (HSC) protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. PRC § 5097.98 (and reiterated in PRC § 15064.59[e]) also identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery.

4.18.3 Discussion of Impacts

a-i, ii) ***Less than Significant with Mitigation Incorporated***. Through background research, outreach to Native American representatives, and a field survey conducted for the proposed project, no tribal cultural resources, as defined in PRC § 21074, were identified in the project site.

Although the proposed project is not anticipated to impact any tribal cultural resources, the project involves ground-disturbing activities that may uncover previously unrecorded archaeological deposits, including human remains. As described in Section 4.54.5 Cultural Resources, with implementation of Mitigation Measures CULT-1, CULT-2, and CULT-3, impacts to tribal cultural resources would be reduced a less-than-significant level. In addition to Mitigation Measures CULT-1 through CULT-3, the following Mitigation Measure, TRC-1, shall be implemented to reduce or avoid impacts on tribal cultural resources.

Mitigation Measure TCR-1: Tribal Cultural Resources

To ensure that Tribal Cultural Resources incur less than significant impacts, a Tribal Monitor approved by the appropriate tribe traditionally and culturally affiliated with the vicinity of the subject parcel and that has consulted with the County and designated one lead contact person in accordance with AB 52 requirements, or other appropriately NAHC-recognized representative, shall be on-site and observe all project-related grading and excavation to identify findings with tribal cultural significance. This Tribal Monitor shall have the authority to temporarily halt work in order to examine any potentially significant cultural materials or features. If resources are discovered, the owner/applicant/contractor shall refer to and comply with Mitigation Measure CULT-1 as applicable. This mitigation is not intended to alleviate responsibility of the owner or its agents from contacting the County Coroner and complying with State law if human remains are discovered.

With implementation of Mitigation Measures CULT-1, CULT-2, CULT-3, and TCR-1, the proposed project would have a less than significant impact on tribal cultural resources.

4.19 Utilities and Service Systems

	UTILITIES AND SERVICE SYSTEMS — Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water 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?	☐	☐	☒	☐

4.19.1 Environmental Setting

Water Supply

The project site is within the Monterey Peninsula Water Management District (MPWMD) and is responsible for issuing water connection permits for development within their boundaries and managing and regulating the use, reuse, reclamation, and conservation of water within its boundaries on the Monterey Peninsula. About 80 percent of the water collected, stored, and distributed within the MPWMD boundaries is done so by the California American Water Company (Cal-Am), which serves approximately 95 percent of Monterey Peninsula residents and businesses. Cal-Am is a privately owned and operated water company with a system capacity

regulated by the MPWMD. Water supplied by Cal-Am is obtained from wells in the Carmel Valley and Seaside aquifers and from the Los Padres and San Clemente Reservoirs located on the Carmel River.

Wastewater

CAWD provides wastewater collection, treatment and disposal services to the areas of Carmel-by-the-Sea, Carmel Valley, and Carmel Highlands, including the project site. CAWD is also responsible for the maintenance and operation of the sewer system within its wastewater management district borders.

Wastewater is carried by the CAWD collection system to CAWD pump stations. The wastewater is subsequently conveyed from these pump facilities to the CAWD wastewater treatment facility located approximately 0.5 mile northeast of the project site.

The CAWD wastewater treatment facility has a permitted average dry weather treatment capacity of 3 million gallons per day (MGD) and is currently operating at 1.1 MGD which represents 37 percent of the permitted capacity.[70] The CAWD wastewater treatment facility is a tertiary plant that provides reclaimed water for landscape irrigation to the Pebble Beach area during the dry season and at times when irrigation demand is low during the wet season. Treated effluent is discharged into the Pacific Ocean via an existing permitted outfall. The plant has 1.9 MGD of capacity available to meet future demands, and expansion of the treatment plant is not anticipated in the near future.

Solid Waste

Solid waste collection at the Carmel River State Beach is maintained by the State Parks staff. Within the City, solid waste collection and disposal services are provided by GreenWaste. Waste is transported to the Monterey Peninsula Landfill and Recycling Facility in the City of Marina, which is operated by the Monterey Regional Waste Management District (MRWMD). The Monterey Peninsula Landfill and Recycling Facility is located approximately 17.5 miles northeast of the project site. This facility serves the solid waste and recycling needs of an estimated 170,000 residents. The landfill operates six days per week and is permitted to receive 3,500 tons of waste per day. The landfill is expected to reach its permitted capacity in 2115.[71] The landfill receives approximately 490,000 tons of waste per year, which averages to less than 1,300 tons of waste per day. [72] Among other things, the facility accepts basic solid waste, liquid waste, and sewage sludge (biosolids), wood waste, yard waste, concrete, brick, rock, asphalt, tires, appliances, furniture, plastics, and boats. In addition to typical waste

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[70] *Carmel Area Wastewater District. Available at: https://www.cawd.org/facilities Accessed on: August 2, 2021.*

[71] *Monterey Regional Waste Management District 2016 Annual Report. Available at: https://www.mrwmd.org/wp-content/uploads/2017/11/mrwmd-annual-report-2016-final.pdf Accessed on: August 2, 2021*

[72] *Monterey Regional Waste Management District 2016 Annual Report. Available at: https://www.mrwmd.org/wp-content/uploads/2017/11/mrwmd-annual-report-2016-final.pdf Accessed on: August 2, 2021*

management, the MRWMD also operates a Materials Recovery Facility (MRF), which targets materials brought in from self-haul loads and commercial wastes, construction and demolition debris, wood waste, and yard waste. This facility diverts an estimated 50% of all incoming material through reuse and recycling. The facility also has off-site local recycling centers that collect household recyclables (glass, aluminum, paper, and plastics).

Natural Gas and Electricity

Nearly all the supplemental energy used in Monterey County is non-renewable petroleum and natural gas. Pacific Gas & Electric (PG&E) operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to the users. Most of the electricity that PG&E distributes throughout Monterey County is obtained from the Moss Landing Power Plant. The Moss Landing Power Plant generates over 2,500 megawatts of electricity. According to the CEC, total energy consumption in California in 2019 was approximately 277,704 gigawatt-hours (GWh).[73] Monterey County's average annual energy consumption in 2019 was approximately 2,470 GWh, which represents less than 1 percent of total electricity consumption in California.[74]

4.19.2 Discussion of Impacts

a) ***Less than Significant Impact.*** The proposed project is a sewer pipeline replacement project that would not result in any new sewage generation. The proposed project would include removal of the existing above-ground pipeline, replacement of two (2) sections of existing underground pipeline, installation of a new lift station, installation of a new sewer, installation of four (4) new small residential scale grinder pumps, and rehabilitation a section of exiting underground pipeline. The project would not result in relocation of wastewater treatment, but rather would replace exiting sewer pipelines within exiting roadways and easements. The lift station and the grinder pumps would be used to move wastewater from lower to higher elevation pipes and would not increase the overall capacity of the sewer system. The new sewer lines would connect to the new lift station to the east of the new pipeline. Although the proposed project involves relocation of the sewer line so that it is closer to the houses it serves, there is no expansion of sewer capacity associated with the project and the new sewer line would continue to serve the same residents in the Carmel Meadows neighborhood as are served by the existing system. The project therefore does not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage. No other

[73] *California Energy Commission. Available at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation Accessed on: July 2, 2021.*

[74] *California Energy Commission. Electricity Consumption by County. Available at: https://ecdms.energy.ca.gov/elecbycounty.aspx Accessed on: July 2, 2021.*

utilities or telecommunication facilities would be required or affected; therefore, impacts would be less than significant.

b, c) ***Less than Significant Impact.*** Neither construction nor operation of the project would consume potable water. A small quantity of wastewater would be generated by workers during construction. Portable toilets would be transported to the project for use by construction workers. The portable toilet waste generated during the construction period would be trucked to an appropriate wastewater treatment facility. The wastewater treatment facility would be able to accommodate this small quantity of waste and would not need to be expanded. Operation of the project would not generate wastewater. The existing pipeline is near the end of its useful life. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River Lagoon. The project would not generate any additional wastewater or affect any wastewater treatment facility. The existing lines would not be removed until after the replacement lines are operational. The proposed project would not expand the wastewater treatment capacity and would therefore have a less than significant impact.

d, e) ***Less than Significant Impact.*** The project would generate soil spoils and solid waste from installing the new pipeline and disposing of the old pipeline. This solid waste would be properly disposed of or recycled at the Monterey Peninsula Landfill and Recycling Facility, located approximately 17.5 miles northeast of the project site. As mentioned above, the landfill is expected to reach its permitted capacity in 2115 and therefore would be able to accommodate the minor amount of solid waste produced from construction of the project. Any materials used during construction would be properly disposed of in accordance with federal, State, and local regulations. Impacts related to solid waste facilities, statutes, and regulations would be less than significant.

4.20 Wildfire

	WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	***Potentially Significant Impact***	***Less than Significant with Mitigation Incorporated***	***Less than Significant***	***No Impact***
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?	☐	☐	☒	☐

4.20.1 Environmental Setting

California Department of Forestry and Fire Prevention (CAL FIRE) maps identify fire hazard severity zones in the State and local responsibility areas. The CAL FIRE Fire Hazard Severity Zones Local Responsibility Areas (LRA) map for Monterey County identifies a large area encompassing northern and eastern portions of the City as a Very High Fire Hazard Severity. However, the proposed project site falls outside of this area. The project site is not located within any SRA for fire service and is not within a very high fire hazard severity zone.[75] The project site is located in a LRA and is classified as a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ).[76]

4.20.2 Discussion of Impacts

a-d) ***Less than Significant Impact.*** The proposed project would not add residents or visitors to the project site and would not add structures that would increase wildfire exposure or

[75] *Map of CAL FIRE's Fire Hazard Severity Zones in Local Responsibility Areas –Monterey County. Available at: <https://osfm.fire.ca.gov/media/6728/fhszl_map27.pdf> Accessed on: June 16, 2021.*

[76] *Ibid.*

hazards. The project site is located in an LRA and in an area classified as a Non-VHFHSZ. The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River. The proposed project would not impair an adopted emergency response plan or emergency evacuation plan due to its location away from Ribera Road.

The proposed project consists of removing the above-ground sections of the existing pipeline and installing a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River Lagoon. Side slopes near the existing pipeline are relatively steep. Although the new pipeline would be higher up the slope, it would be below ground and therefore less prone to wildfire risk and damage.

The project would replace an existing pipeline, and therefore does not require installation of additional utility infrastructure. The proposed project is an infrastructure improvement project and would not expose people or structures to flooding or landslides. Additionally, existing site conditions would not be altered in any way that could expose people or structures to significant risks since the new pipeline would be subterranean. The proposed project would pose less than significant impacts related to exacerbating or exposing people to wildfire risk.

4.21 Mandatory Findings of Significance

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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.21.1 Discussion of Impacts

a) ***Less than Significant with Mitigation Incorporation.*** As detailed in this Initial Study/Mitigated Negative Declaration (IS/MND), the proposed project would not have a significant impact on the environment and would not result in any of the impacts requiring a mandatory finding of significance provided that the mitigation measures identified herein are properly implemented and maintained as described in the Biological Resources, Cultural Resources, Noise, and Tribal Cultural Resources sections of this IS/MND.

Mitigation Measure BIO-1 through BIO-10 would ensure that impacts to CRLF remain less than significant with mitigation incorporated. Additionally, if left unprotected, Hoary bats roosting in mature trees may be harassed, harmed, or killed during tree trimming and removal. Mitigation Measure BIO-11 stipulates that bat roost assessments be required no more than 14 days prior to the start of construction activities if construction is to occur during maternity roosting season.

Impacts to nesting birds would be considered potentially significant under CEQA. This impact would be mitigated to level considered less than significant with implementation of Mitigation Measure BIO-12. The project will temporarily impact upland habitat that is designated as critical habitat for CRLF by the USFWS. Temporary impacts to habitat would occur as the result of vegetation trimming and removal, trenching, and sewer pipeline installation and repair work. All adverse effects will be temporary, and all disturbed areas will be revegetated, per Mitigation Measure BIO-13. Impacts to protected trees would be mitigated to a less than significant level with implementation of Mitigation Measure BIO-14.

Because the proposed project would involve ground-disturbing activities that may extend into undisturbed soil, it is possible that such actions could unearth, expose, or disturb subsurface archaeological resources that have not been previously identified. If such archaeological deposits are present in the project site and were found to qualify as archaeological resources pursuant to CEQA Guidelines § 15064, impacts of the proposed project on archaeological resources could be potentially significant. Such potentially significant impacts would be reduced to a less than significant level with implementation of Mitigation Measure CULT-1 and CULT-2. Because the proposed project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. If human remains were discovered during proposed project construction activities, impacts would be significant if those remains were disturbed or damaged. Such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CULT-1 to CULT-3 and Mitigation Measure TCR-1.

Construction noise levels may periodically exceed noise standards in the existing noise ordinance, but the temporary noise from construction would not cause a substantial increase in ambient noise or expose sensitive receptors to unacceptable noise levels for long periods of time. Impacts associated with construction noise would cause a potentially significant, temporary increase in noise levels, but incorporation of Mitigation Measure NOISE-1 would reduce noise impacts to a less-than-significant level.

Although the proposed project is not anticipated to impact any tribal cultural resources, there remains the possibility that previously unrecorded archaeological deposits, including human remains, are present in the project site. If such deposits are present and were found to qualify as tribal cultural resources, as defined in PRC § 21074, any impacts of the proposed project on the resource would be potentially significant. Such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CULT-1 and CULT-2.

b) ***Less than Significant with Mitigation Incorporation.*** Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the

effects of probable future projects. The analysis in this Initial Study demonstrates that the project would not have any individually limited, but cumulatively considerable impacts. As presented in the analysis in Biological Resources, Cultural Resources, Noise, and Tribal Cultural Resources sections, any potentially significant impacts would be less than significant with mitigation incorporated. The proposed project is an infrastructure improvement project, and thus impacts would be short-term and temporary during project construction. No long-term, operational impacts would be associated with the project. Therefore, the proposed project would not have any cumulatively considerable impacts, and impacts would be less than significant.

c) ***Less than Significant Impact.*** With implementation of the construction measures and BMPs discussed in the Project Description, the project would not result in substantial adverse effects to human beings, either directly or indirectly.

5.0 REFERENCES

Anderson, R. 2016. Report for Amphibian Management and Monitoring at Palo Corona Regional Park, Garland Ranch Regional Park, and Frog Pond Wetland Preserve, Monterey County, CA. University of California, Davis. Department of Entomology/Ecology Graduate Group.

Assembly Bill 32, Passed August 31, 2006, http://www.arb.ca.gov/cc/docs/ab32text.pdf.

Bay Area Air Quality Management District (BAAQMD). CEQA Air Quality Guidelines. May 2017.

BAAQMD. Final 2017 Clean Air Plan. Available at: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed on June 10, 2021.

BAAQMD. Source Inventory of Bay Area Greenhouse Gas Emissions – Base Year 2007. Available at: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx#:~:text=Methane%20(CH4)%20emissions%20from%20various,major%20sources%20of%20these%20emissions. Accessed on June 10, 2021

Bureau of Reclamation – Mid Pacific Region. 2017. Salinas and Carmel Rivers Basin Study. January 2017. Available at: https://www.mpwmd.net/asd/board/committees/watersupply/2017/20170208/02/Item-2-Exh-B.pdf Accessed on: June 15, 2021.

California Air Resources Board. GHG Current California Emission Inventory Data. Available at: https://ww2.arb.ca.gov/ghg-inventory-data Accessed on August 24, 2020

California Department of Conservation. Alquist-Priolo Earthquake Fault Zones. Available at: https://www.conservation.ca.gov/cgs/alquist-priolo# Accessed on: July 19, 2021

California Department of Toxic Substances Control “EnviroStor” database, Available at: http://www.envirostor.dtsc.ca.gov/public/

California Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Monterey County Important Farmland 2016. Available at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Monterey.aspx>, Accessed June 25, 2021

California Energy Commission (2016) Web site (Building Efficiency Standards), http://www.energy.ca.gov/title24

California Energy Commission. Available at: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2018-total-system electricgeneration#:~:text=In%202018%2C%20total%20generation%20for,to%2056%20percent%20in%202017. Accessed on: August 25, 2020.

California Energy Commission. Electricity Consumption by County. Available at: https://ecdms.energy.ca.gov/elecbycounty.aspx Accessed on: August 25, 2020.

California Energy Commission. Final 2020 Integrated Energy Policy Report Update Volume I Blue Skies, Clean Transportation.

California Fire Hazard Severity Zone Viewer. Available at: https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414 Accessed on: August 24, 2020

California Department of Fish and Game. 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code. Environmental Services Division, Sacramento, CA.

California Department of Fish and Wildlife. 2021. California Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento. Accessed: May 2021.

California State Water Resources Control Board "GeoTracker" database. Available at: http://geotracker.waterboards.ca.gov/

Carmel Area Land Use Plan. 1983. Local Coastal Program. Available at: https://www.co.monterey.ca.us/home/showdocument?id=37889 Accessed on August 2, 2021

Carmel Area Wastewater District. Available at: https://www.cawd.org/facilities Accessed on: August 25, 2020

County of Monterey. 2003. Draft Findings of the Monterey County LCP Periodic Review.

Denise Duffy & Associates. 2016. Biological Assessment for the Carmel River Floodplain Restoration and Environmental Enhancement Project.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Environmental Science Associates (ESA). Carmel Meadows Lift Station and Sewer Replacement Project, Monterey County, California: Cultural Resources Inventory Report

EPA. 2007. Summary of the Energy Independence and Security Act. Available online at: https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act

Federal Emergency Management Agency. 2017. Firm Flood Insurance Rate Map: Monterey County Unincorporated Areas – Panel 06053C0316H. June 21, 2017. Available at: https://msc.fema.gov/portal/search?AddressQuery=G5HF%2BQ2%20Carmel%20Valley%20%20Manor%2C%20California#searchresultsanchor Accessed on: June 15, 2021.

Geologic Hazards Map for Monterey County. Erosion Hazard Rating. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: September 1, 2020.

Geologic Hazards Map for Monterey County. Landslide Susceptibility. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: September 1, 2020.

Geologic Hazards Map for Monterey County. Liquefaction Susceptibility. Available online: https://www.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53 Accessed on: June 9, 2021.

Governor's Office of Planning and Research. 2008 CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. Available at: https://opr.ca.gov/docs/june08-ceqa.pdf Accessed on July 2, 2021

Map of CAL FIRE's Fire Hazard Severity Zones in Local Responsibility Areas –Monterey County. Available at: <https://osfm.fire.ca.gov/media/6728/fhszl_map27.pdf> Accessed on: June 16, 2021

Monterey Bay Air Resources District. 2012-2015 Air Quality Management Plan. Adopted by District Board of Directors March 15, 2017. Available at: https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf. Accessed July 19, 2021.

Monterey County. 2006. Carmel Valley Master Plan Chapter 10-B. Available at: https://www.co.monterey.ca.us/Home/ShowDocument?id=45238. Accessed on June 18, 2021

Monterey County General Plan. 2010 Available at: https://www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/land-use-regulations/2010-general-plan

Monterey County General Plan. Adopted October 26, 2010. Chapter 3.0-Conservation and Open Space Element.

Monterey County General Plan. 2010. Figure 14, Scenic Highway Corridors and Visual Sensitivity Map, January 26, 2010. Available at: https://www.co.monterey.ca.us/Home/ShowDocument?id=45866 Accessed on July 2, 2021.

Monterey County General Plan. 2010. Public Services Element. Available at: https://www.co.monterey.ca.us/government/departments-a-h/housing-community-development/planning-services/land-use-regulations/2010-general-plan

Monterey County 2007 General Plan. Draft Environmental Impact Report. Section 4.5 Mineral Resources. Available at: <https://www.co.monterey.ca.us/home/showdocument?id=43994> Accessed May 8, 2020

Monterey County Hazardous Materials Incident Response Plan. January 2016. Available at: http://www.mcftoa.org/wp-content/uploads/2011/05/Monterey-County-Haz-Mat-Area-Plan-Final-January-2016.pdf Accessed on: July 19, 2021

Monterey Office of Emergency Services. Hazard Ready. Earthquakes. Available at <https://www.co.monterey.ca.us/government/departments-a-h/administrative-office/office-of-emergency-services/ready-monterey-county/hazard-ready/earthquakes> Accessed on August 18, 2020

Monterey Regional Waste Management District 2016 Annual Report. Available at: https://www.mrwmd.org/wp-content/uploads/2017/11/mrwmd-annual-report-2016-final.pdf Accessed on: August 25, 2020

National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971

Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services)

State of California, Energy Commission and Public Utilities Commission, "Energy Action Plan 2008 Update," February 2008. http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/2008%20Energy%20Action%20Plan%20Update.pdf

Transportation Agency for Monterey County. 2011. Bicycle and Pedestrian Master Plan. December. Available online: https://www.co.monterey.ca.us/home/showdocument?id=62338 Accessed on: August 31, 2020.

United States Congress, Energy Policy Act of 2005 (Public Law 109-58), passed July 29, 2005. https://www.congress.gov/bill/109th-congress/house-bill/6

U.S. Department of Energy, 2014. Alternative Fuels Data Center – Fuel Properties Comparison. http://www.afdc.energy.gov/fuels/fuel_comparison_chart.pdf

U.S. Energy Information Administration. 2021. California State Profile and Energy Estimates. Available at: https://www.eia.gov/state/?sid=CA#tabs-4 Accessed on July 2, 2021.

U.S. EPA Greenhouse Gas Emissions. U.S. Greenhouse Gas Inventory Report: 1990-2014. Available at: https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014 Accessed on: August 24, 2020

U.S. Fish and Wildlife Service. 2010. Endangered and Threatened Wildlife and Plants. Revised Designation of Critical Habitat for California Red-legged Frog; Final Rule. Federal Register, Vol. 75, No. 51. 12815-12959.

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APPENDICES

Appendix A – Biological Resources Assessment
Appendix B – Arborist Report
Appendix C – Cultural Resources Inventory Report Executive Summary

Appendix A – Biological Resources Assessment

Biological Resources Assessment

Carmel Meadows Lift Station and Sewer Replacement

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LIST OF ABBREVIATIONS AND ACRONYMS

CCC	California Coastal Commission
CDP	Coastal Development Permit
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
Corps	U.S. Army Corps of Engineers
CNPS	California Native Plant Society
CRLF	California Red-Legged Frog
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Federal Endangered Species Act
FAC	Facultative
FACW	Facultative Wetland
HCP	Habitat Conservation Plan
LCP	Local Coastal Plan
LSAA	Lake and Streambed Alteration Agreement
NOAA	National Oceanic and Atmospheric Administration
NRCS	National Resources Conservation Service
OBL	Obligate
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WBWG	Western Bat Working Group
WRA Inc.	WRA

1.0 INTRODUCTION AND PROJECT DESCRIPTION

On April 8, 2020, WRA, Inc. (WRA) conducted an assessment of biological resources at the site of the proposed Carmel Meadows Sewer Line Replacement and Lift Station Project (Project), located in unincorporated Monterey County, California, just south of the City of Carmel By-The-Sea (Appendix A, Figure 1). The Project is bounded by the Carmel Meadows residential neighborhood to the south, the Carmel River lagoon to the north, undeveloped land to the east, and Carmel River State Beach to the west. The majority of the Study Area is located on the hillside behind the residences of Carmel Meadows and intersects some landscaped backyards. In the far eastern end of the Study Area, it also runs along Mariposa Drive for approximately 130 feet. Staging for the Project will occur in an undeveloped lot on Ribera Road.

This report describes the results of the site survey, which assessed the Study Area, consisting of a 30-foot wide buffer around the centerline of the Project, for the potential to support special-status species and the presence of other sensitive biological resources protected by local, state, and federal laws and regulations. This biological resource assessment provides general information on the potential presence of sensitive species and habitats. The biological resources assessment is not an official protocol-level survey for listed species. This assessment is based on information available at the time of the study and on-site conditions that were observed on April 8, 2020.

1.1 Project Description

The existing sewer laterals flow downslope and northward, away from the homes and properties on Ribera Road, into an eight-inch ductile iron collector line which is adjacent to the restored Carmel River Estuary. Much of the existing sewer collector line is above ground and vulnerable to flooding, and if the line were to leak or break it could potentially contaminate the estuary. The existing pipeline is near the end of its useful life and therefore the District proposes a new sewer line that would be higher up the slope, closer to the houses it serves, and away from the Carmel River (Appendix A, Figure 2).

The Project will utilize a small lift station and a series of four small residential scale sewage pumps to enable the use/ reuse of accessible and less environmentally damaging pipeline alignments through the backyards of the residences being served. A 12-inch wide trench would be dug with a small excavator to about three-feet deep typically (maximum depth is five feet). Impacts to residential landscaping would be avoided where possible and/or restored to original or better condition. The total footprint of all permanent and temporary impacts from the pump station and pipeline replacement, as well as construction access and staging areas, is approximately 10,000 square feet. The total footprint of the pipeline will be 15-feet wide within the larger Study Area, however the final Project alignment has yet to be determined.

1.1.1 Pipeline Reuse

The western segment of the pipeline would remain gravity fed. The Project will reinforce the lining of an existing eight-inch diameter pipe using an epoxy resin that will improve the existing pipe, making it stronger and less susceptible to leaks or breaks. This technique eliminates the need for trenching in this area, though it does require equipment staging at the top and bottom of the pipeline segment.

1.1.2 Lift Station

The small lift station is proposed in the Mariposa Court cul-de-sac. It will be below the street surface and will draw electricity from the underground electric power in the center of Ribera Road. Minimally visible above ground equipment would include a power control panel, (about four-feet wide by about six-feet tall) with a small antenna for remote control communications equipment (up to twelve feet tall), and a manhole cover (flush with pavement).

1.1.3 Staging and Access

The District has identified a vacant lot at 2930 Ribera Road that could be used as a staging area, pending land owner approval. This would provide proximate staging near the proposed lift-station with nearby access to the pipeline alignments. Access to the pipeline alignments would be via Mariposa Court on the east and through a utility easement between 2935 and 2955 Ribera Road. The specifications for this staging area would include, at minimum, the following requirements:

- The staging area will be included in the Contractor's Stormwater Pollution Prevention Plan (SWPPP).
- The staging area will not be located in an environmentally or culturally sensitive area and/or impact water resources (rivers, streams, bays, inlet, lakes, drainage sloughs).
- The staging area will not be located in a regulatory floodway or within the base floodplain (100-year).
- The staging area will not affect access to properties or roadways.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological resources assessment including applicable laws and regulations that relate to the field investigations.

2.1 Special-status Species

Special-status species include plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). These acts afford protection to both listed species and species proposed for listing. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that in some regards are similar to those provided by ESA. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, are considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity. Bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status and also considered under CEQA. In addition to regulations for special-status species, most native birds in the United States (including non-status species) are protected by the California Fish and Game Code (CFGC; Sections 3503, 3503.5, and 3513), and guidance for protection is provided by the Migratory Bird Treaty Act of 1918 (MBTA). Under the CFGC, destroying active nests, eggs, or young is illegal.

Plant species listed on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Ranks) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are afforded little or no protection under CEQA, but are included in this analysis for completeness. A description of the CNPS Ranks is provided below in Table 1.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - a review list
Rank 4	Plants of limited distribution - a watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined in the ESA as a specific and designated geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

2.2 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations, such as the Clean Water Act (CWA); state regulations, such as the Porter-Cologne Water Quality Control Act, the CDFW Streambed Alteration Program, the California Coastal Act, and CEQA; or local ordinances or policies, such as city or county tree ordinances, Special Habitat Management Areas, and General Plan elements.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the CWA. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to suppress growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" (i.e., non-wetland waters) and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.

Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

CDFW Jurisdictional Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by the CDFW under Sections 1600-1616 of the CFGC. Alterations to or work within or adjacent to streambeds or lakes generally require a Section 1602 Lake and Streambed Alteration Agreement (LSAA). The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). "Riparian" is defined as "on, or pertaining to, the banks of a stream." Riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 LSAA from the CDFW.

California Coastal Commission Environmentally Sensitive Habitat Areas

On land, the California Coastal Zone varies in width from several hundred feet in highly urbanized areas up to 5 miles in certain rural areas, and offshore the coastal zone includes a 3-mile-wide band of ocean. Within the California Coastal Zone, an "environmentally sensitive area" is defined by the California Coastal Act as: "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Section 30107.5). The California Coastal Commission (CCC) regulates the diking, filling, or dredging of wetlands, which qualify as an Environmentally Sensitive Habitat Area (ESHA), within the California Coastal Zone. Section 30121 of the California Coastal Act defines "wetlands" as "lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The CCC considers this definition as requiring the observation of one diagnostic feature of a wetland, such as wetland hydrology, dominance by wetland vegetation (i.e., hydrophytes), or presence of hydric soils, as a basis for asserting jurisdiction under the California Coastal Act. In addition to the above definition, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* (CCC 1981) provide technical criteria for use in identifying and delineating wetlands and other environmentally sensitive habitat areas within the Coastal Zone. The technical criteria presented in the guidelines are based on the California Coastal Act definition and indicate that wetland hydrology is the most important

parameter for determining a wetland. If a project proposes to develop or grade areas within the California Coastal Zone, a Coastal Development Permit (CDP) is typically required from the CCC.

Monterey County Local Coastal Program

Local Coastal Programs (LCPs) are planning tools created and implemented by coastal cities and counties, in conjunction with and approved by the CCC. LCPs create the regulatory framework for future development and protection of coastal resources.

The LCP for Monterey County, the *Monterey County Coastal Implementation Plan*, divides all portions of Monterey County in the California Coastal Zone into four Land Use Plan (LUP) Areas: North County, Big Sur, Carmel, and Del Monte (County of Monterey 2003). The Project falls within the Carmel LUP Area. The following subsections detail the policy measures and recommendations that relate to natural resources and are pertinent to the Project.

General Policy 1

General Policy 1 limits "development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures" within "critical and sensitive habitat areas, riparian corridors, wetlands, sites of known rare and endangered species of plants and animals, rookeries and major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as critical." In addition, "only small-scale development necessary to support the resource-dependent uses may be located in sensitive habitat areas if they cannot feasibly be located elsewhere."

General Policy 2

General Policy 2 calls for "land uses adjacent to locations of environmentally sensitive habitats" that are "compatible with the long-term maintenance of the resource". In addition, "New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource."

General Policy 5

General Policy 5 states that "Where private or public development is proposed in documented or expected locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. I - field surveys by qualified individuals or agency shall be required in order to determine precise locations of the habitat and to recommend mitigating measures to ensure its protection. This policy applies to the entire segment except the internal portions of Carmel Woods, Hatton Fields, Carmel Point (Night heron site excluded), Odello, Carmel Meadows, and Carmel Riviera. If any habitats are found on the site or within 100 feet from the site, the required survey shall document how the proposed development complies with all the applicable habitat policies."

Riparian Corridors and Other Terrestrial Wildlife Habitats Policy 1

Riparian Corridors and Other Terrestrial Wildlife Habitats Policy 1 states that "Riparian plant communities shall be protected by establishing setbacks consisting of a 150-foot open space buffer zone on each side of the bank of perennial streams and 50 feet on each side of the bank of intermittent streams, or the extent of riparian vegetation, whichever is greater. No new

development, including structural flood control projects, shall be allowed within the riparian corridor."

Wetlands and Marine Habitat Policy 1

Wetlands and Marine Habitat Policy 1 requires a "setback of 100 feet from the edge of all coastal wetlands shall be provided and maintained in open space use. No new development shall be allowed in this setback area."

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities (alliances) as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2019). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

2.3 Protected Trees

County of Monterey Tree Ordinance

The Monterey County Oak Protection Ordinance (Tree Ordinance) stipulates regulations designed to preserve and protect native trees on private or City-owned property. The Tree Ordinance requires permission from the County Planning Department for the removal of trees designated as "protected trees" that includes all oak trees that are six inches in diameter or more at two feet above ground level. Landmark trees are also protected under the Tree Ordinance and are defined as oak trees that are 24 inches or more in diameter at two feet above ground. No person shall do, cause, aid, abet, suffer, or furnish equipment or labor to remove, cut down, or trim more than one-third of the green foliage of any protected or landmark tree without the obtainment of a tree removal permit.

A tree assessment from a county-approved arborist or forester is required for all projects require the removal of protected trees. The removal of three or more protected trees per lot may also require a use permit or coastal development permit through the CCC.

3.0 METHODS

On April 8, 2020, the Study Area was traversed on foot to determine: (1) if existing conditions provide suitable habitat for any special-status plant or wildlife species, (2) plant communities present within the Study Area, and (3) if sensitive habitats are present. All observed plant and wildlife species are listed in Appendix B.

3.1 Special-status Species

3.1.1 Literature Review

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Monterey and four surrounding 7.5-minute U.S. Geological Survey (USGS) quadrangles, including Soberanes Point, Mount Carmel, Seaside, and Marina. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- CNDDB records (CDFW 2020)
- USFWS Information for Planning and Conservation Species Lists (USFWS 2020a)
- CNPS Inventory records (CNPS 2020)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication *California Bird Species of Special Concern* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)

3.1.2 Site Assessment

A site visit was conducted in the Study Area to search for suitable habitats for special-status species. Habitat conditions observed in the Study Area were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (e.g., foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. The species is observed on the site or has been recorded (i.e., CNDDB other reports) on the site recently.

The site assessment was intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity to determine its potential to occur in the Study Area. The site visit did not constitute a protocol-level survey and was not intended to determine the actual presence or absence of a species; however, if a special-status species was observed during the site visit, its presence was recorded and is discussed in the Results section of this document.

Appendix C presents the evaluation of the potential for occurrence of each special-status plant and wildlife species known to occur in the vicinity of the Study Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above. Recommendations for further surveys for species present or with a moderate or high potential to occur in the Study Area are provided in Section 5.0 below.

3.2 Biological Communities

Prior to the site visit, the Soil Survey of Monterey County, California (USDA 1978) was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) or *Manual of California Vegetation* (Sawyer et.al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

3.2.1 Non-sensitive Biological Communities

Non-sensitive biological communities are not afforded special protection under state, federal, and local laws, regulations, and ordinances. Impacts to such communities would not be significant under CEQA. These communities may, however, provide suitable habitat for some special-status plant or wildlife species.

3.2.2 Sensitive Biological Communities

Sensitive biological communities are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Methods used to identify sensitive biological communities are discussed below.

Wetlands, Non-wetland Waters, and Riparian Vegetation

The Study Area was surveyed to determine if any wetlands, non-wetland waters, or riparian vegetation potentially subject to jurisdiction under the CWA, the Porter-Cologne Water Quality Control Act, the CFCG, and the California Coastal Act. The assessment was based primarily on

the presence of wetland plant indicators, but also included any observed indicators of wetland hydrology or hydric soils. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status[1] of OBL, FACW, or FAC as provided on the Corps National Wetlands Plant List (Lichvar et al. 2016). Evidence of wetland hydrology can include direct (primary) indicators, such as visible inundation or saturation, algal mats, and oxidized root channels, or indirect (secondary) indicators, such as a water table within 2 feet of the soil surface during the dry season. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual (Environmental Laboratory 1987) and Field Indicators of Hydric Soils in the U.S. (Natural Resources Conservation Service [NRCS] 2010).

A formal wetland delineation was conducted within the Study Area and a delineation report suitable for submission to the Corps and the CCC was prepared.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas and sensitive plant communities recognized by the CDFW. If present in the Study Area, these sensitive biological communities were mapped and are described below.

[1] OBL = Obligate, always found in wetlands (> 99% frequency of occurrence); FACW = Facultative wetland, usually found in wetlands (67-99% frequency of occurrence); FAC = Facultative, equal occurrence in wetland or non-wetlands (34-66% frequency of occurrence).

4.0 RESULTS

The Study Area borders the Carmel River lagoon in the Monterey USGS 7.5-minute quadrangle. The Study Area is at the crest and hillside of a north-facing slope that terminates near the edge of the lagoon. The Carmel Meadows residential neighborhood borders and intersects the Study Area to the south. Some sections of the Study Area are located within landscaped backyards and along Ribera Drive and on Mariposa Court. The proposed staging area for the Project is located in an undeveloped lot on Ribera Drive and is surrounded by residences. The remainder of the Study Area is a 30-foot wide alignment through back yards along Ribera Drive and skirting the edge of adjacent undeveloped land. The Project will be designed to minimize impacts to natural vegetation communities and will temporarily affect approximately 15-feet within the Study Area, depending on final alignment. Therefore the following subsections address the results within the full 30-foot wide Study Area.

4.1 Soils

The Study Area contains two soil types (California Soil Resource Laboratory [CSRL] 2020). Soil types in the Study Area are discussed below.

Narlon loamy fine sand. The Narlon loamy fine sand complex consists of somewhat poorly drained soils on the western edge of the Study Area. Runoff is very high in these soils. Soils in this complex have a hydric rating.

Xerothents, dissected. The Xerothents complex consists of well drained soils in the central and eastern portion of the Study Area. These soils formed from mixed, unconsolidated alluvium. Runoff is very high and these soils do not have a hydric rating.

4.2 Hydrology and Topography

The Study Area ranges in elevation from approximately 20 to 100 feet NGVD (all elevations are recorded in NGVD). The Study Area is mainly located along the edge of a steep hillside with the exception of the far western portion which is located along a footpath that provides access to the point of connection with existing sewer line. The Study Area then climbs steeply from the western extent towards the Carmel Meadows residential development.

Precipitation and runoff from the neighborhood are the main natural hydrological sources for the Study Area. Stormwater runoff throughout the Study Area drains north and downslope towards the Carmel River. Several small stormwater culverts originating in the residential neighborhood were observed on the northern edge of the Study Area.

4.3 Special-status Species

4.3.1 Plants

Based on a review of the resources and databases discussed in Section 3.1.1, 75 special-status plant species have been documented in the vicinity of the Study Area (Appendix A, Figure 3). Appendix C summarizes the potential occurrence for each special-status plant species located in the vicinity of the Study Area.

No special-status plant species were observed in the Study Area during the site visits. Of the 75 special-status species documented, none were determined to have a moderate or high potential to occur in the Study Area for one or more of the following reasons

- Absence of specific soil types (e.g., serpentine soils)
- Absence of suitable habitat (e.g., chaparral, coastal scrub, grassland, vernal pools or wetlands)
- Dominance of invasive, non-native species
- Outside the geographic range of species (e.g., Study Area is below known elevation range)
- Outside the known distribution of species (e.g., Study Area is too far north)
- Portions of the Study Area occur within back yards of residences that are routinely disturbed and maintained.

4.3.2 Wildlife

Based on a review of the resources and databases listed in Section 3.1.1, 32 special-status wildlife species have been documented in the vicinity of the Study Area. The locations of special-status wildlife species in the CNDDB within 5 miles of the Study Area are depicted in Figure 4 in Appendix A. Appendix C summarizes the potential for each of these species to occur within the Study Area. Of the 32 special-status species, 30 are considered unlikely, or have no potential, to occur in the Study Area for one or more of the following reasons:

- The Study Area is outside of the known or historical range of the species
- The Study Area lacks suitable aquatic habitat (e.g., rivers, streams, vernal pools)
- The Study Area lacks suitable foraging habitat (e.g., marshes)
- The Study Area lacks suitable nesting structures
- The Study Area lacks suitable soil for den development
- No mine shafts, caves, or abandoned buildings are present
- There is a lack of connectivity with suitable occupied habitat

While the aforementioned factors contribute to the absence of many special-status wildlife species, the Study Area was determined to have adequate conditions and locality to warrant a moderate or high potential for two special-status species to occur. Native nesting birds protected by the CFGC may also occur in the Study Area. These species are discussed below.

Wildlife Species with High Potential to Occur in the Study Area

California red-legged frog (CRLF; *Rana draytonii*). Federally Threatened Species. CDFW Species of Special Concern. CRLF is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, CRLF disperse from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. CRLFs estivate (period of inactivity) during the dry months. Upland habitats include areas within 300-feet of aquatic and riparian habitat and are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. These upland features provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland

habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter (USFWS 2010).

This species has been documented in the immediate vicinity of the Study Area in the CNDDB (Occurrence Number 472, CDFW 2020). The occurrence notes that three or more individuals were detected at three sites "between Ribera Road at Calle la Cruz Road and the Water Treatment Plant" in March of 2001. The occurrence also notes that CRLF were observed "throughout (the) south feature" in 2000 (CDFW 2020). In addition, Palo Corona Regional Park is periodically surveyed for CRLF. From 2013 to 2016, larvae and as many as 15 adult CRLF were detected in Entrance Pond within the park, approximately 1,400 feet northeast of the Study Area (Anderson 2016). The Carmel River lagoon also represents breeding habitat for CRLF (DD&A 2016).

No breeding or non-breeding aquatic habitat was observed within the Study Area. However, the south reach of the Carmel River lagoon represents suitable breeding habitat for CRLF. A large portion of the Study Area contains coast live oak woodland with leaf litter, which represents suitable upland refuge habitat for CRLF and all of this habitat falls within 300 feet of the edge of riparian habitat. Limited small mammal burrows were present within the Study Area. No CRLF were observed onsite during the field visit on April 8, 2020.

Wildlife Species with Moderate Potential to Occur in the Study Area

Hoary bat (*Lasiurus cinereus*), WBWG Medium Priority. Hoary bats are highly associated with forested habitats in the western United States, particularly in the Pacific Northwest. They are a solitary species and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches, usually at the edge of a clearing. Roosts are typically 10 to 30 feet above the ground. They have also been documented roosting in caves, beneath rock ledges, in woodpecker holes, in grey squirrel nests, under driftwood, and clinging to the side of buildings, though this behavior is not typical. Hoary bats are thought to be highly migratory, however, wintering sites and migratory routes have not been well documented. This species tolerates a wide range of temperatures and has been captured at air temperatures between 0 and 22 degrees Celsius. Hoary bats probably mate in the fall, with delayed implantation leading to birth in May through July. They usually emerge late in the evening to forage, typically from just over one hour after sunset to after midnight. This species reportedly has a strong preference for moths, but is also known to eat beetles, flies, grasshoppers, termites, dragonflies, and wasps (WBWG 2015).

The Study Area contains many medium or large coast live oak trees with dense foliage suitable for hoary bat roosting. In addition, the large Monterey cypress trees may also provide roosting habitat. The nearby Carmel River may also support abundant prey for hoary bats. No hoary bats were observed during the field visit on April 8, 2020.

4.3.3 Critical Habitat

The entire Study Area is located within critical habitat unit MNT-2: Carmel River, for CRLF, as designated by the USFWS (75 FR 12815-12959). MNT-2 includes the breeding and non-breeding aquatic and riparian habitat within the Carmel River and lagoon, as well as the riparian, upland, and dispersal habitat surrounding the Carmel River (Appendix A, Figure 5). However, developed land associated with the Carmel Meadows residential neighborhood represents a significant barrier to CRLF dispersal.

No other critical habitat is designated within the Study Area.

4.4 Biological Communities

The Study Area contains woodlands, scrub, developed land cover, landscape/ornamental vegetation, and iceplant mats (Appendix A, Figure 6). Woodland communities in the Study Area included coast live oak woodland and Monterey cypress woodland. Scrub in the Study Area included poison oak scrub and coastal brambles. Coastal brambles have a state rank of S3 and are, therefore, considered a sensitive biological community by CDFW.

In addition, one ephemeral stream originating at a concrete culvert was observed directly outside of the eastern portion of the Study Area, north of Mariposa Court. However, the stream and culvert will not be impacted during the Project and were not included in Table 2. All biological communities in the Study Area are depicted on Figure 6 of Appendix A.

Table 2. Biological Communities in the Study Area

Biological Community Type	Biological Community or Association	Sensitivity Type	Acreage
Sensitive Communities			
Scrub	Coastal brambles	CDFW	0.07
		Subtotal	**0.07**
Non-Sensitive Communities			
Woodland	Monterey cypress stands	N/A	0.08
Woodland	Coast live oak woodland	N/A	0.43
Scrub	Poison oak scrub	N/A	0.08
Herbaceous	Iceplant mats	N/A	0.31
Developed (e.g., hardscape, roads, trails)	Developed	N/A	0.20
Landscape	Landscape/ornamental	N/A	0.24
		Subtotal	**1.34**
		Total	**1.41**

4.4.1 Non-sensitive Biological Communities

Monterey Cypress Stands. Two stands of large Monterey cypress (*Hesperocyparis macrocarpa*) were observed within the Study Area. These stands are relatively narrow and located between residences within the Carmel Meadows neighborhood. Due to the even spacing and location of the trees, these stands are presumed to have been planted or may be remnant stands from before the construction of the subdivision. The understory is sparse in these stands

and contains patches of bare ground, ripgut brome (*Bromus diandrus*), and ornamental plant species.

Coast Live Oak Woodland (CDFW Rank G5/S4). Coast live oak woodland was observed in a large, continuous band throughout the majority of the Study Area. The coast live oak woodland is located on the steep, north-facing slope between the Carmel River lagoon and the landscaped backyards of Carmel Meadows. In the center of the Study Area, coast live oak woodland directly abuts backyard fences. Coast live oaks (*Quercus agrifolia*) are the sole dominants within this community with no other tree species observed. The understory largely consists of ripgut brome and bare ground, although patches of California blackberry (*Rubus ursinus*), coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*) are also present within the coast live oak woodland. In some locations where houses bordered the coast live oak woodland, non-native ornamentals have been planted and maintained beneath the trees.

Poison Oak Scrub (CDFW Rank G4/S4). Poison oak scrub was observed exclusively in the western portion of the Study Area on a steep, north-facing slope. This community is predominantly comprised of poison oak, with a few scattered coyote brush. In some locations, English ivy (*Hedera helix*) and California blackberry were observed within the poison oak.

Iceplant Mats. Iceplant mats were observed in multiple patches throughout the Study Area between coast live oak woodland and houses where the iceplant (*Carpobrotus edulis*) had overtaken landscaping. The proposed staging area is also completely covered with iceplant mats. These mats are comprised almost completely of iceplant, although some mats also contains some ripgut brome.

Developed. Developed land cover in the Study Area includes residences, pavement in backyards, the dirt access road at the western terminus of the Project, Mariposa Court, and a small portion of Ribera Road.

Landscape/Ornamental. Landscape/ornamental land cover in the Study Area consists mainly of maintained gardens and landscaping, consisting mainly non-native vegetation in backyards along the length of the Project. This land cover also includes ornamental rock walls and other unvegetated landscape features. In addition, the access path in the center of the Study Area is comprised of a manicured turf that is also considered landscape.

4.4.2 Sensitive Biological Communities

Scrub Communities

Coastal Brambles (CDFW Rank G4/S3)**.** Coastal brambles within the Study Area occurs in several patches on the border between coast live oak woodlands and the landscaped backyards of the residences. Coastal brambles observed within the Study Area are areas dominated by California blackberry (*Rubus ursinus*, FAC). California blackberry is assumed not to be a hydrophyte in these areas based on sloping topography; rather is a deep-rooted species which is able to tap into deep groundwater sources and can grow in dry surface soils. Facultative species occur in uplands 50% of the time. These areas are considered to be uplands due to the lack of hydrology indicators and the absence of hydric soils. The upland conditions at these locations is further illustrated by the presence of upland plant species, such as coyote brush and poison oak and non-native species including pride-of-madeira (*Echium candicans*), poison hemlock (*Conium maculatum*), and English ivy growing within these coastal brambles. As such, these areas are not

considered wetlands. As such, the coastal brambles within the Study Area are not wetlands subject to CCC jurisdiction. Coastal brambles, however, do have a state rank of S3 and are, therefore, considered a sensitive biological community by CDFW.

4.5 Protected Trees

The Study Area contains trees that are considered protected trees per the County Tree Ordinance. The quantity and location of protected trees within the Study Area was not determined during the site assessment. A County-approved arborist will need to conduct a tree survey of the Study Area to document all existing trees and to determine the extent of impacts to trees that are protected by the County Tree Ordinance.

5.0 PROJECT IMPACTS AND MITIGATION MEASURES

The State CEQA Guidelines provide direction for assessing the impacts of projects on biological resources and determining which impacts will be significant. CEQA defines a "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under State CEQA Guidelines Section 15065, a project's impacts on biological resources are deemed significant if the project would:

A. substantially reduce the habitat of a fish or wildlife species
B. cause a fish or wildlife population to drop below self-sustaining levels
C. threaten to eliminate a plant or animal community
D. reduce the number or restrict the range of a rare or endangered plant or animal

Additionally, Appendix G of State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

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 CDFW or USFWS;
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 CDFW or USFWS;
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 (HCP), Natural Community Conservation Plan, or other approved local, regional, or state HCP.

This report uses these thresholds in the analysis of impacts and determination of the significance of those impacts. The assessment of impacts under CEQA is based on the change caused by the Project relative to the CEQA baseline, which in this case are the existing conditions in the Study Area.

Potential impacts on existing biological resources were evaluated by comparing the quantity and quality of habitats present in the Study Area under baseline conditions to the anticipated conditions after implementation of proposed Project activities. Direct and indirect impacts on special-status species and sensitive natural communities were assessed based on the potential for the species, their habitat, or the natural community in question to be disturbed or enhanced by the proposed Project. Determinations of whether or not Project activities will result in a substantial adverse effect to biological resources are provided in the following sections.

5.1 Impact BIO-1: Special-Status Species

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 CDFW or USFWS.

The following impact analysis describes the Project's adverse effects on special-status species. Appendix C lists the potentially occurring special-status plant and wildlife species, along with their listing status and basis for the determination of their absence from the Study Area.

Potential Impact BIO-1a: Federally and State-Listed Special-Status Plants and CRPR 1 or 2 Plants

No federally and state-listed plants, special-status plants or CRPR 1 or 2 plants were observed within the Study Area or have a moderate or high potential to occur within the Study Area. Therefore, no impacts to special-status plant species will occur from implementation of the Project.

Level of Significance: No Impact

Potential Impact BIO-1b: California Red-legged Frog

CRLF are considered to have a high potential to occur within the Study Area. The Carmel River lagoon provides suitable breeding habitat for CRLF, and given the proximity of suitable breeding habitat, the Study Area represents suitable upland refuge habitat for CRLF. CRLF could be harassed, harmed, or killed during Project activities, including vegetation removal and ground disturbance; however, avoidance and minimization measures will be implemented to prevent any potential take of CRLF.

The Project may result in a temporary loss in upland refuge habitat throughout the Study Area. However, all temporary impacts will be revegetated according to the Revegetation Plan, as further discussed in Section 5.2 below. Impacts to CRLF is considered significant under CEQA. This impact could be mitigated to a level considered less than significant pursuant to CEQA with implementation of the proposed mitigation measures.

Level of Significance: Potentially Significant

The following mitigation measures will be implemented to avoid, reduce and/or mitigate impacts to CRLF:

<u>Mitigation Measure BIO-1: Workers Environmental Awareness Training</u>

Contractors and employees working on the Project will attend a Worker Environmental Awareness Training Program (WEAP) prior to beginning work at the site. The WEAP will consist of a brief presentation by a USFWS-approved biologist, which may be given either in-person or via an automated PowerPoint presentation. The program will include a description of visual identification of any special-status species and required habitat, an explanation of the status of these species and their protection, consequences of non-compliance, and a description of the Project-specific measures being taken to reduce effects to these species. Documentation of the training (i.e., a sign-in sheet) will be retained at the site and will be submitted with applicable reports.

Mitigation Measure BIO-2: Preconstruction Surveys and Construction Monitoring

Within 48 hours prior to any construction activities, a qualified biologist will conduct surveys for CRLF in and adjacent to the Study Area. A qualified biologist will be on-site during ground-disturbing activities, including fence installation and the operation of heavy equipment (e.g., during excavation and grading activities). The qualified biologist will be given authority to stop any work that may result in take of listed species. If at any time a CRLF is observed within the Project Area and relocation is necessary, the USFWS will be consulted, and the animal will be transported to a suitable relocation site within the Carmel River, outside of the Study Area and released.

Mitigation Measure BIO-3: Exclusion Fence

Exclusionary fencing will be placed around the Project Area to prevent CRLF from entering from any adjacent breeding habitat. Fencing will consist of silt fence or suitable substitute (e.g., ERTEC 48-inch high-visibility orange silt fencing), which will be buried at least 6-inches below the surface (or sealed in a like manner) to prevent incursion under the fence, and will stand at least 36 inches above ground. The fence will also be made of an opaque material for visibility. Exit funnels will be installed to allow any animals that may be occupying the Study Area to escape. Exclusion fencing will be inspected and maintained throughout the Project. Fencing will be removed only when all construction equipment is removed from the site.

The exclusion fence will be checked for breaches on a daily basis by the qualified biologist. However, if a qualified biologist is not required to be on-site for biological monitoring or other tasks, an on-site representative may be appointed to check the fence on a daily basis and conduct repairs. If an on-site representative is conducting inspections and repairs, a qualified biologist will verify the fence status on a weekly basis to assure repairs are occurring as needed. A comprehensive fencing plan will be submitted for District approval.

Mitigation Measure BIO-4: Covering Trenches

To prevent inadvertent entrapment of wildlife, any excavated, steep-walled holes or trenches more than 12 inches deep will either be covered at the close of each working day, or have one or more escape ramps constructed of earth fill or wooden planks installed with slopes less than 4:1 (H:V). Before any such holes or trenches are filled, they will be inspected for wildlife by a qualified biologist.

Mitigation Measure BIO-5: Work Windows

The Project will not operate heavy equipment on-site from 30 minutes after sunrise to 30 minutes before sunset, thereby avoiding disturbances during the most active times for the subject species. The Project may occur year-round.

Mitigation Measure BIO-6: Delineating Boundaries

The boundary of the Project Area will be clearly delineated with highly-visible stakes, fencing, or flagging.

Mitigation Measure BIO-7: Disposal of Trash

To eliminate attractants of predators, any food-related trash will be disposed of in closed containers and removed from the site regularly.

Mitigation Measure BIO-8: No Mono-filament Netting

Mono-filament netting or similar material will not be used on any erosion control devices specified in the SWPPP.

Mitigation Measure BIO-9: Vehicular Traffic

All vehicle traffic will be restricted to established or defined temporary access roads.

Mitigation Measure BIO-10. Revegetation

The Project will revegetate temporary disturbance areas (discussed in Section 5.2), as such, no permanent loss of CRLF upland refugia habitat is anticipated.

Level of Significance After Mitigation: Less Than Significant

Potential Impact BIO-1c: Hoary Bat

Hoary bats are considered to have a moderate potential to occur within the Study Area. Hoary bats may use medium and large coast live oak and Monterey cypress trees for roosting. If left unprotected, Hoary bats may be harassed, harmed, or killed during tree trimming and removal.

The Project may result in a loss of roosting habitat in coast live oak woodland and Monterey cypress stands in the Study Area. However, impacts to natural vegetation, including removal of coast live oak trees and Monterey cypress, will be revegetated according to the Revegetation Plan, discussed in further detail in Section 5.2. Impacts to hoary bats would be considered potentially significant under CEQA. This impact could be mitigated to level considered less than significant pursuant to CEQA with implementation of the proposed mitigation measures.

Level of Significance: Potentially Significant

The following measures will be implemented to reduce and mitigate impacts to hoary bats:

Mitigation Measure BIO-11: Bat Roost Assessment

To avoid impacts to roosting bats, trees and snags should be removed between October 1 and March 31, outside of the maternity roosting season (when female bats may have dependent young). If tree removal must occur between April 1 and September 30, a bat roost habitat assessment should be conducted by a qualified biologist. The bat roost habitat assessment would determine the likelihood of the Study Area supporting roosting bats at the time of tree or snag removal. If the assessment identifies suitable or potentially occupied roosts within the Study Area, a pre-construction bat survey should be performed no more than 14 days prior to removal using site appropriate survey methods to determine if potential roost structures are occupied.

If special-status bat species are detected during these surveys, the removal of trees or snags will be postponed until the end of the maternity roosting season. Irrespective of time of year, all felled trees should remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape.

In addition, if mature coast live oak Monterey cypress are removed during construction, they will be replaced at a minimum ratio of 1:1 per the Revegetation Plan, as discussed in Section 5.2.

Level of Significance After Mitigation: Less Than Significant with Mitigation

Potential Impact BIO-1d: Common Nesting Birds

No special-status bird species have a moderate or high potential to occur within the Study Area. However, the Project has the potential to impact common nesting birds protected by the CFGC or MBTA. Project activities, such as vegetation and tree removal and ground disturbance, have the potential to impact these species by causing direct mortality of eggs or young, or by causing auditory, vibratory, and/or visual disturbance of a sufficient level to cause abandonment of an active nest. If Project activities occur during the nesting season, which generally extends from February 1 through August 31, nests of common birds could be impacted by construction and other ground-disturbing activities. The Project will revegetate temporary disturbance areas (discussed in Section 5.2 below), so no permanent loss of habitat is anticipated for nesting birds. Impacts to nesting birds would be considered potentially significant under CEQA. This impact could be mitigated to level considered less than significant pursuant to CEQA with implementation of the proposed mitigation measures.

Level of Significance: Potentially Significant

<u>Mitigation Measure BIO-12: Common Nesting Birds</u>

Project activities, such as vegetation removal, grading, or initial ground-disturbance, will be conducted between September 1 and January 31 (outside of the February 1 to August 31 nesting season) to the greatest extent feasible.

If Project activities must be conducted during the nesting season, a pre-construction nesting bird survey will be conducted by a qualified biologist no more than 14 days prior to vegetation removal or initial ground disturbance. The survey will include the Study Area and surrounding vicinity to identify the location and status of any nests that could potentially be affected either directly or indirectly by Project activities.

If active nests of native nesting bird species are located during the nesting bird survey, a work exclusion zone will be established around each nest by the qualified biologist. Established exclusion zones will remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes will be determined by a qualified biologist and will vary based on species, nest location, existing visual buffers, noise levels, and other factors. An exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species, or as large as 250 feet or more for raptors. Exclusion zone size will be reduced from established levels by a qualified biologist if nest monitoring findings indicate that Project activities do not adversely impact the nest, and if a reduced exclusion zone would not adversely affect the nest.

Level of Significance After Mitigation: Less Than Significant with Mitigation

Potential Impact BIO-1e: Critical Habitat

The Project will impact upland habitat that is designated critical habitat by the USFWS for California red-legged frogs. Temporary impacts to habitat would occur as the result of vegetation trimming and removal, trenching, and sewer pipeline installation and repair work. All adverse effects will be temporary and all disturbed areas will be revegetated, per Mitigation Measure BIO-13, provided in the following section. Impacts to critical habitat from Project implementation would be less than significant.

Level of significance: Less than Significant

5.2 Impact BIO-2: Sensitive Communities

The CDFW defines sensitive natural communities and vegetation alliances using NatureServe's standard heritage program methodology (CDFG 2007), as described above in Section 2.2. Project impacts to CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, were considered and evaluated.

The final footprint of the Project will avoid impacts to coastal bramble to the maximum extent feasible. However, the Project may result in temporary impacts to coastal bramble, a sensitive community under CDFW. Impacts to CDFW sensitive natural communities would be considered a significant impact under CEQA. This impact could be mitigated to level considered less than significant pursuant to CEQA with implementation of the Mitigation Measure BIO-13.

Level of Significance: Potentially Significant

Mitigation Measure BIO-13: Revegetation Plan

The Project will avoid impacts to coastal brambles, coast live oak woodland, and Monterey cypress stands to maximum extent feasible. To mitigate for impacts to coastal brambles that cannot be avoided, a Revegetation Plan will be drafted and submitted to CDFW for approval. All temporary impact areas within the Study Area will be mitigated via on-site revegetation at a minimum 1:1 ratio of impacted to restored habitat. Natural recruitment of native vegetation is expected to occur and will be augmented through seeding with a native seed mix. In addition, native California blackberry plugs will be installed throughout the areas of temporary impacts to coastal brambles to re-establish this sensitive natural community. If mature coast live oak and Monterey cypress trees are removed during construction, replacement trees will be planted at a minimum 1:1 ratio. Impacts to coastal brambles from Project implementation would be less than significant after implementation of this mitigation measure.

Level of Significance After Mitigation: Less Than Significant with Mitigation

5.3 Impact BIO-3: Jurisdictional Waters

Wetlands are considered sensitive environmental resources protected at federal, state, and local levels. They provide unique habitat functions and values for wildlife, and provide habitat for plant species adapted to wetland hydrology. Throughout California, the quality and quantity of wetlands has dramatically declined owing to the construction of dams, dikes, and levees, as well as because of water diversions, the filling of wetlands for development, and the overall degradation of water quality by inputs of runoff from agricultural, urban, and infrastructure development and other sources.

The Project will not impact any jurisdictional waters.

Level of Significance: No Impact

5.4 Impact BIO-4: Wildlife Movement

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: (1) as habitat patches become smaller they are unable to support as many individuals (patch size), and (2) the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity). Vegetation removal and construction activities within coast live oak woodland may temporarily impact CRLF upland habitat. However, the Project would not develop the Project Area and it would continue to function for local movement of terrestrial species following the revegetation of all temporarily impacted areas.

Level of Significance: Less Than Significant

5.5 Impact BIO-5: Conflicts with Local Policies

Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Potential Impact BIO-5a: Protected Trees

Protected trees defined by the County Tree Ordinance have been identified within the Study Area. It is anticipated that implementation of the proposed Project will result in unavoidable impacts to trees protected by the County Tree Ordinance. Impacts to protected trees would be considered a significant impact under CEQA.

Level of Significance: Potentially Significant

Mitigation Measure BIO-14: Arborist Survey Report

A County-approved arborist will conduct a tree survey of the Study Area to document all existing trees and to determine the extent of impacts to trees that are protected by the County Tree Ordinance. Information regarding each protected tree within the Study Area will be compiled in

an arborist survey report and submitted to the County as part of the tree removal permit application. The arborist survey report will identify the quantity and location of protected trees that will be impacted by the proposed Project. It is anticipated that protected tree replacement at a 2:1 ratio, and/or a fee will be required by the tree removal permit to mitigate for impacts associated with the removal of protected trees.

Level of Significance After Mitigation: Less Than Significant with Mitigation

5.6 Impact BIO-6: Conflicts with an Adopted Habitat Conservation Plan

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 Project would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. The Study Area is not within a geographic area covered by an adopted HCP or a natural community conservation plan. The Project conforms with all applicable measures and recommendations set forth in the Carmel Area LUP of the *Monterey County Coastal Implementation Plan*.

Level of Significance: No Impact

5.7 Impact BIO-7: Cumulative Impacts

Cumulative impacts on the biological resources that could be affected by the Project may result from a number of past, current, and reasonably foreseeable future projects that occur in the area. Although such projects could result in impacts on these sensitive habitats and species, it is expected that most current and future projects that impact these species and their habitats would be required to mitigate these impacts through the CEQA, Section 1602, or Section 404/401 permitting process, as well as through the ESA Section 7 consultation process. As a result, most projects in the region will mitigate their impacts on these resources, minimizing cumulative impacts on these species.

Through implementation of the avoidance and minimization, and/ or mitigation measures, incorporated into the Project, the proposed Project will not result in a considerable contribution to any significant cumulative impacts to biological resources.

Level of Significance: No Impact

6.0 REFERENCES

Anderson, R. 2016. Report for Amphibian Management and Monitoring at Palo Corona Regional Park, Garland Ranch Regional Park, and Frog Pond Wetland Preserve, Monterey County, CA. University of California, Davis. Department of Entomology/Ecology Graduate Group.

[CDFG] California Department of Fish and Game. 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code. Environmental Services Division, Sacramento, CA.

[CDFG] California Department of Fish and Game. 2007. NatureServe Conservation Status Assessments: Factors for evaluating Species and Ecosystem Risk.

[CDFW] California Department of Fish and Wildlife. 2020. California Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento. Accessed: March 2020.

[CNPS] California Native Plant Society. 2020. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). Sacramento, California. Online at: http://rareplants.cnps.org/. Accessed: March 2020.

[CSRL] California Soil Resources Lab. 2020. Online Soil Survey. Online at: http://casoilresource.lawr.ucdavis.edu/drupal. Accessed: November 2020.

[DD&A] Denise Duffy & Associates. 2016. Biological Assessment for the Carmel River Floodplain Restoration and Environmental Enhancement Project.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Google Earth. 2020. Aerial Imagery 1993-2020. Accessed: March 2020.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento, California.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17.

County of Monterey. 2003. Draft Findings of the Monterey County LCP Periodic Review.

[NRCS] Natural Resources Conservation Service. 2010. Field Indicators of Hydric Soils in the United States, version 5.0. G.W. Hurt, P.M. Whited, eds. USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils, Fort Worth, TX.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society in collaboration with California Department of Fish and Game. Sacramento, CA. 1300 pp.

Shuford, WD, and T Gardali (eds). 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and CDFG, Sacramento.

Stebbins, R.C. A Field Guide to Western Reptiles and Amphibians, 3rd Edition. 2003. The Peterson Field Guide Series, Houghton Mifflin Company, New York.

Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Co-published by the California Department of Fish and Wildlife and University of California Press. Oakland, California.

[USDA] U.S. Department of Agriculture, Soil Conservation Service. 1978. Soil Survey of Monterey County. In cooperation with the United States Forest Service and the University of California Agricultural Experiment Station.

[USFWS] U.S. Fish and Wildlife Service. 2010. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for California Red-legged Frog; Final Rule. Federal Register, Vol. 75, No. 51. 12815-12959.

[USFWS] U.S. Fish and Wildlife Service. 2020a. Information for Planning and Consultation. Accessed: March 2020.

[USFWS] U.S. Fish and Wildlife Service. 2020b. Threatened & Endangered Species Active Critical Habitat Report Online Mapper. Accessed: March 2020.

Western Bat Working Group (WBWG). 2015. Species account for Hoary Bat (Lasiurus cinereus). http://wbwg.org/western-bat-species/ Prepared by: Betsy C. Bolster.

[WRA] WRA, Inc. 2020. Aquatic Resources Delineation Report. Carmel Meadows Sewer Line Replacement and Lift Station Project, Monterey County. CA.

[Xerces] Xerces Society. 2020. Species Account for Western Bumblebee. Online. Accessed April 2020.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White. 1990. California's Wildlife, Volume I-III: Amphibians and Reptiles, Birds, Mammals. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento.

APPENDIX A

FIGURES

Path: L:\Acad 2000 Files\30000\30026\GIS\ArcMap\Location.mxd

Sources: National Geographic, WRA | Prepared By: njander, 3/12/2020

Figure 1. Study Area Regional Location Map

Carmel Meadows Lift Station Carmel Area Water Disctict
Monterey County, California

0 0.25 0.5 Miles

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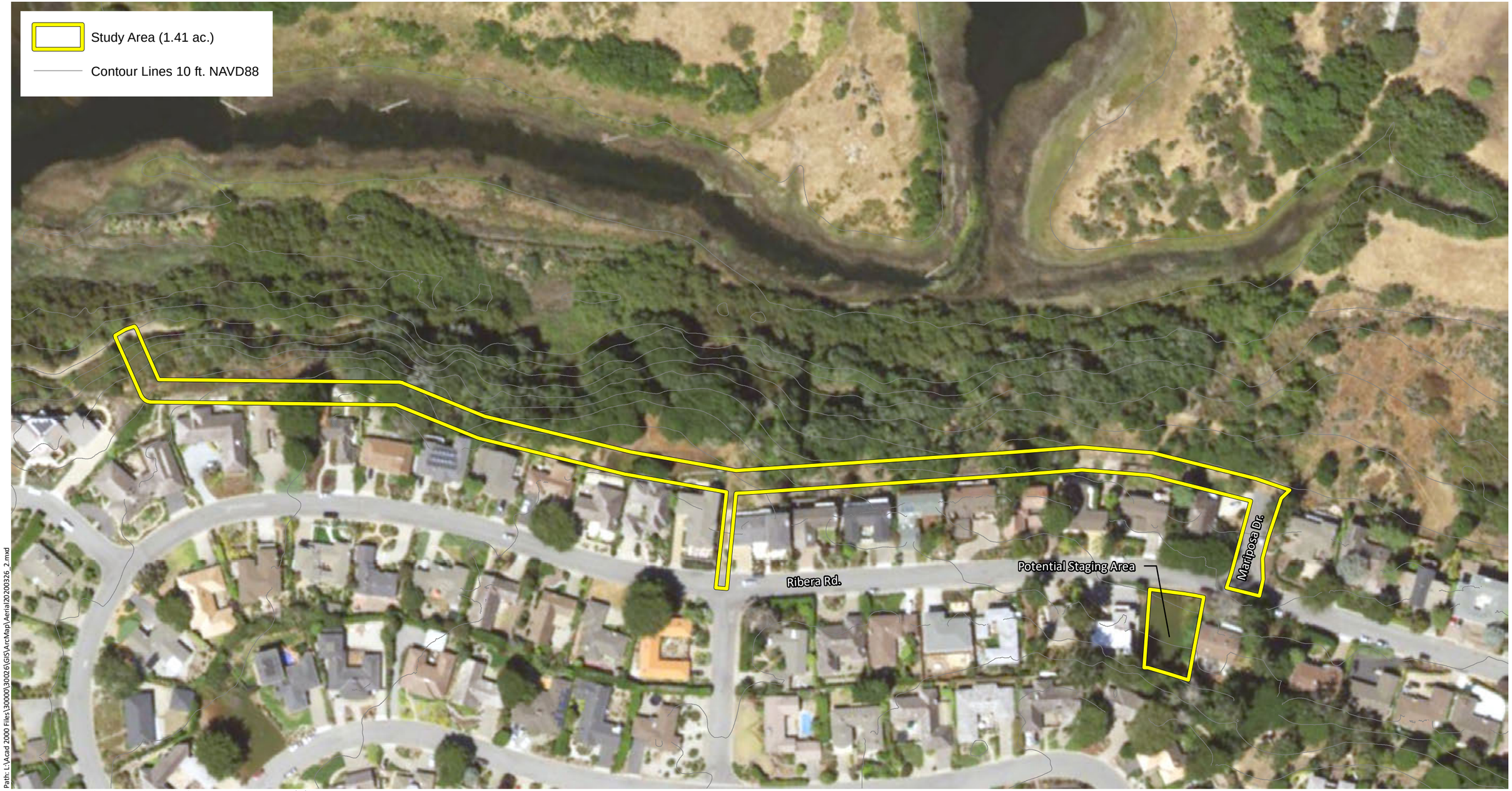

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Sources: USDA NAIP Imagery 2016, WRA | Prepared By: njander, 5/1/2020

Figure 2. Study Area

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, CA

0 200 400 Feet

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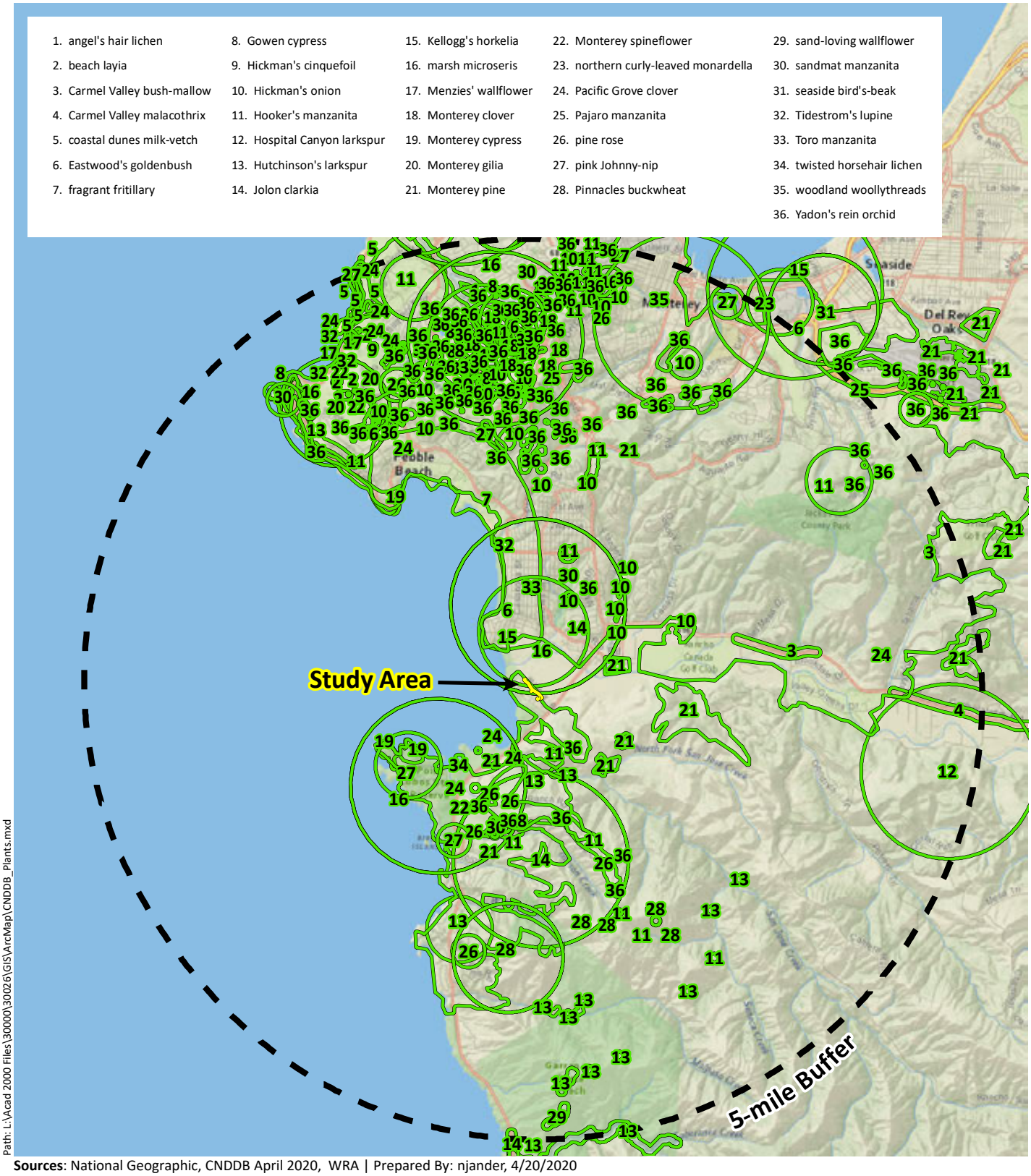

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Sources: National Geographic, CNDDB April 2020, WRA | Prepared By: njander, 4/20/2020

Figure 3. Special-Status Plant Species Documented within 5-miles of the Study Area

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, California

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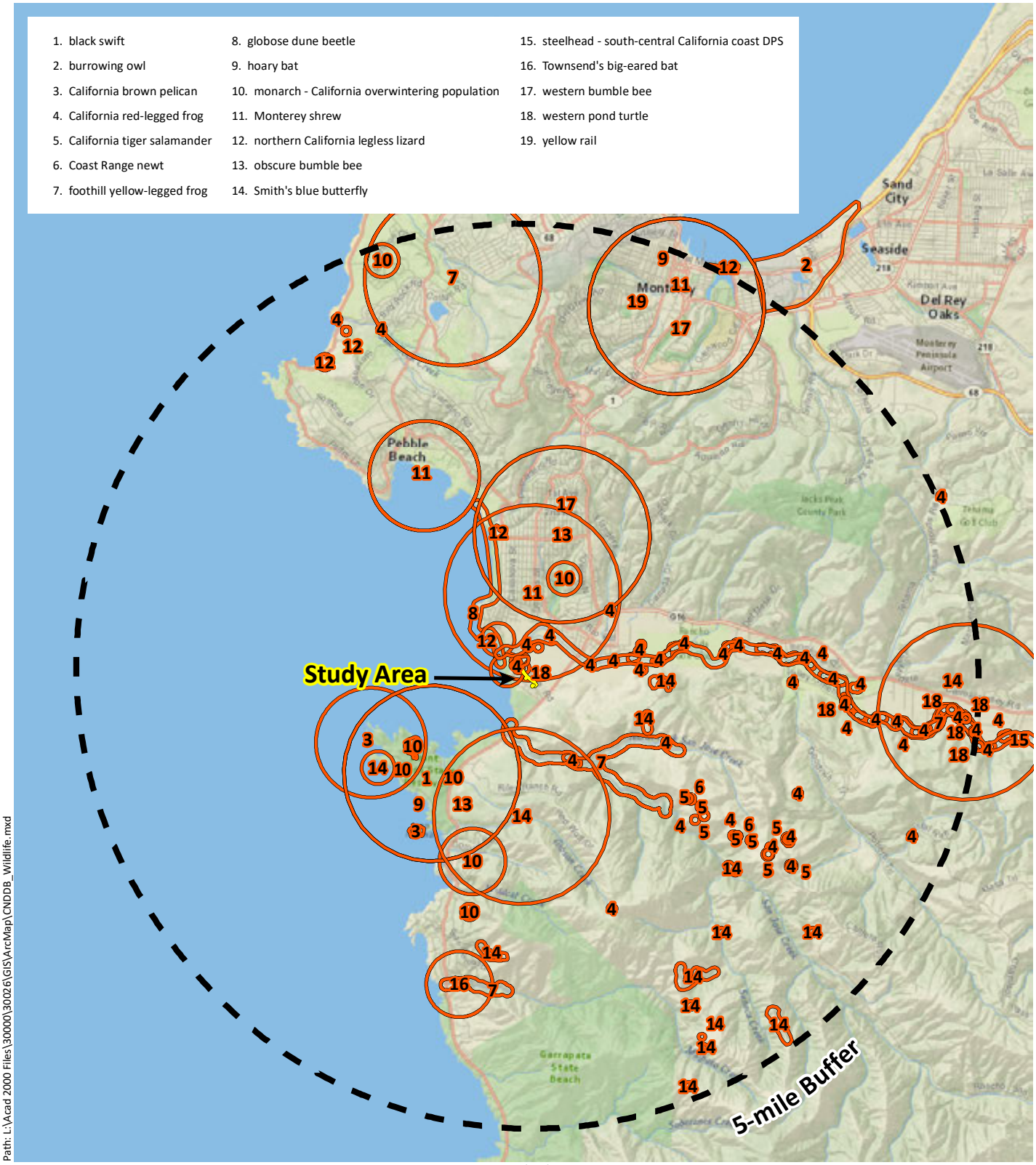

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Sources: National Geographic, CNDDB April 2020, WRA | Prepared By: njander, 4/20/2020

Figure 4. Special-Status Wildlife Species Documented within 5-miles of the Study Area

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, California

0 1 2 Miles

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Sources: USDA NAIP Imagery 2018, USFWS, WRA | Prepared By: njander, 5/1/2020

Figure 5. Critical Habitat

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, CA

0 0.5 1 Miles

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Sources: USDA NAIP Imagery 2018, WRA | Prepared By: njander, 5/13/2020

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Figure 6. Biological Communities in the Study Area

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, CA

0 200 400 Feet

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APPENDIX B

LIST OF OBSERVED SPECIES

Appendix B-1. Plant species observed during April 8, 2020 site visit.

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Acacia longifolia	Golden wattle	non-native	tree	-	-	-
Aesculus californica	Buckeye	native	tree	-	-	-
Allium triquetrum	White flowered onion	non-native	perennial herb (bulb)	-	-	-
Avena barbata	Slim oat	non-native (invasive)	annual, perennial grass	-	Moderate	-
Baccharis pilularis	Coyote brush	native	shrub	-	-	-
Brassica rapa	Common mustard	non-native (invasive)	annual herb	-	Limited	FACU
Bromus diandrus	Ripgut brome	non-native (invasive)	annual grass	-	Moderate	-
Bromus hordeaceus	Soft chess	non-native (invasive)	annual grass	-	Limited	FACU
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	non-native (invasive)	annual herb	-	Moderate	-
Carpobrotus edulis	Iceplant	non-native (invasive)	perennial herb	-	High	-
Ceanothus thyrsiflorus	Blueblossom	native	tree, shrub	-	-	-

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	-	Moderate	FACU
Claytonia parviflora ssp. parviflora	Miner's lettuce	native	annual herb	-	-	FACU
Conium maculatum	Poison hemlock	non-native (invasive)	perennial herb	-	Moderate	FACW
Convolvulus arvensis	Field bindweed	non-native	perennial herb, vine	-	-	-
Cortaderia jubata	Andean pampas grass	non-native (invasive)	perennial grass	-	High	FACU
Crassula multicava ssp. multicava	Cape province pygmyweed	non-native	perennial herb, shrub	-	-	-
Cyperus eragrostis	Tall cyperus	native	perennial grasslike herb	-	-	FACW
Delairea odorata	Cape ivy	non-native (invasive)	perennial herb	-	High	-
Echium candicans	Pride of madeira	non-native (invasive)	shrub	-	Limited	-
Foeniculum vulgare	Fennel	non-native (invasive)	perennial herb	-	High	-
Frangula californica	California coffeeberry	native	shrub	-	-	-

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Genista monspessulana	French broom	non-native (invasive)	shrub	-	High	-
Geranium dissectum	Wild geranium	non-native (invasive)	annual herb	-	Limited	-
Hedera helix	English ivy	non-native (invasive)	vine, shrub	-	High	FACU
Helminthotheca echioides	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	-	Limited	FAC
Hesperocyparis macrocarpa	Monterey cypress	native	tree	Rank 1B.2	-	-
Hirschfeldia incana	Short-podded mustard	non-native (invasive)	perennial herb	-	Moderate	-
Hordeum murinum	Foxtail barley	non-native (invasive)	annual grass	-	Moderate	FACU
Juncus patens	Common rush	native	perennial grasslike herb	-	-	FACW
Lactuca serriola	Prickly lettuce	non-native	annual herb	-	-	FACU
Lamium purpureum	Purple dead nettle	non-native	annual herb	-	-	-

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Limonium perezii	Canarian sea lavender	non-native	perennial herb	-	-	-
Lotus corniculatus	Bird's foot trefoil	non-native	perennial herb	-	-	FAC
Lysimachia arvensis	Scarlet pimpernel	non-native	annual herb	-	-	FAC
Medicago polymorpha	California burclover	non-native (invasive)	annual herb	-	Limited	FACU
Myoporum laetum	Ngaio tree	non-native (invasive)	tree, shrub	-	Moderate	FACU
Myrica sp.	-	-	-	-	-	-
Oxalis pes-caprae	Bermuda buttercup	non-native (invasive)	perennial herb	-	Moderate	-
Plantago coronopus	Cut leaf plantain	non-native	annual herb	-	-	FAC
Plantago lanceolata	Ribwort	non-native (invasive)	perennial herb	-	Limited	FAC
Prunus cerasifera	Cherry plum	non-native (invasive)	tree	-	Limited	-
Quercus agrifolia	Coast live oak	native	tree	-	-	-
Rosa californica	California wild rose	native	shrub	-	-	FAC
Rubus ursinus	California blackberry	native	vine, shrub	-	-	FAC

Scientific Name	Common Name	Origin	Form	Rarity Status[1]	CAL-IPC Status[2]	Wetland Status[3]
Rumex crispus	Curly dock	non-native (invasive)	perennial herb	-	Limited	FAC
Salix lasiolepis	Arroyo willow	native	tree, shrub	-	-	FACW
Silybum marianum	Milk thistle	non-native (invasive)	annual, perennial herb	-	Limited	-
Sisyrinchium bellum	Blue eyed grass	native	perennial herb	-	-	FACW
Stachys sp.	-	-	-	-	-	-
Toxicodendron diversilobum	Poison oak	native	vine, shrub	-	-	FACU
Trifolium dubium	Shamrock	non-native	annual herb	-	-	UPL
Vinca major	Vinca	non-native (invasive)	perennial herb	-	Moderate	-
Zantedeschia aethiopica	Callalily	non-native (invasive)	perennial herb	-	Limited	OBL

- All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2020]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2020]

*Special-status only within its native range. The Study Area is outside of the native range of this species.

[1]Rarity Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2020)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
Rank 1A:	Plants presumed extinct in California
Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere
Rank 2:	Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3:	Plants about which we need more information – a review list

Rank 4: Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2020)

High: Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.

Moderate: Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically

Limited: Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically

Assessed: Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, California – Arid West Region (Lichvar et al. 2016)

OBL: Almost always found in wetlands;

FACW: Usually found in wetlands

FAC: Equally found in wetlands and uplands

FACU: Usually not found in wetlands

UPL: Almost never found in wetlands

NL: Not listed, assumed almost never found in wetlands

NI: No information; not factored during wetland delineation

Appendix B-2. Wildlife species observed in the Project Area on April 8, 2020.

Scientific Name	Common Name
Birds	
Agelaius phoeniceus	Red-winged blackbird
Aphelocoma californica	California scrub-jay
Baeolophus inornatus	Oak titmouse
Buteo lineatus	Red-shouldered hawk
Callipepla californica	California quail
Calypte anna	Anna's hummingbird
Cathartes aura	Turkey vulture
Colaptes auratus	Northern flicker
Corvus brachyrhynchos	American crow
Dryobates nuttallii	Nuttall's woodpecker
Geothlypis trichas	Common yellowthroat
Junco hyemalis	Dark-eyed junco
Empidonax difficilis	Pacific-slope flycatcher
Haemorhous mexicanus	House finch
Melospiza melodia	Song sparrow
Melanerpes formicivorus	Acorn woodpecker
Mimus polyglottos	Northern mockingbird
Pheucticus melanocephalus	Black-headed grosbeak
Poecile rufescens	Chesnut-backed chickadee
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Selasphorus sasin	Allen's hummingbird
Streptopelia decaocto	Eurasian collared-dove

Scientific Name	Common Name
Amphibians	
Pseudacris sierra	Sierran treefrog

APPENDIX C

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES POTENTIALS TABLE

Appendix C. Potential for Special-Status Plant and Wildlife Species to Occur in the Study Area. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (2020), U.S. Fish and Wildlife Service (USFWS) Species Lists (2020), and California Native Plant Society (CNPS) Electronic Inventory (2020) searches of the 5 Quad Search centered on the Monterey USGS 7.5-minute quadrangle.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Plants				
vernal pool bent grass *Agrostis lacuna-vernalis*	Rank 1B.1	Vernal pools (mima mounds). Elevation ranges from 375 to 475 feet (115 to 145 meters). Blooms Apr-May.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Hickman's onion *Allium hickmanii*	Rank 1B.2	Closed-cone coniferous forest, chaparral (maritime), coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 655 feet (5 to 200 meters). Blooms Mar-May.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area that are considered woodland are frequently disturbed due to close proximity to residential homes.	No further actions are recommended.
Howell's onion *Allium howellii var. howellii*	Rank 4.3	Valley and foothill grassland. Elevation ranges from 160 to 7220 feet (50 to 2200 meters). Blooms Mar-Apr.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Little Sur manzanita *Arctostaphylos edmundsii*	Rank 1B.2	Coastal bluff scrub, chaparral. Elevation ranges from 30 to 345 feet (10 to 105 meters). Blooms Nov-Apr (May).	**No Potential.** No manzanita observed in the Study Area. Suitable habitat not present within Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Hooker's manzanita *Arctostaphylos hookeri ssp. hookeri*	Rank 1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Elevation ranges from 195 to 1760 feet (60 to 536 meters). Blooms Jan-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species. There is no coniferous forest or coniferous forest habitat within the Study Area.	No further actions are recommended.
Toro manzanita *Arctostaphylos montereyensis*	Rank 1B.2	Chaparral (maritime), cismontane woodland, coastal scrub. Elevation ranges from 95 to 2395 feet (30 to 730 meters). Blooms Feb-Mar.	**No Potential.** No manzanita observed in the Study Area. Suitable habitat not present within Study Area. Coastal scrub and chaparral habitats are not present within the Study Area.	No further actions are recommended.
Pajaro manzanita *Arctostaphylos pajaroensis*	Rank 1B.1	Chaparral (sandy). Elevation ranges from 95 to 2495 feet (30 to 760 meters). Blooms Dec-Mar.	**No Potential.** No manzanita observed in the Study Area. Suitable habitat not present within Study Area. Coastal scrub and chaparral habitats are not present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
sandmat manzanita *Arctostaphylos pumila*	Rank 1B.2	Closed-cone coniferous forest, chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub. Elevation ranges from 5 to 675 feet (3 to 205 meters). Blooms Feb-May.	**No Potential.** No manzanita observed in the Study Area. Suitable habitat not present within Study Area. Coastal scrub and chaparral habitats are not present within the Study Area.	No further actions are recommended.
ocean bluff milk-vetch *Astragalus nuttallii var. nuttallii*	Rank 4.2	Coastal bluff scrub, coastal dunes. Elevation ranges from 5 to 395 feet (3 to 120 meters). Blooms Jan-Nov.	**No Potential.** Suitable habitat not present within Study Area. Coastal scrub and chaparral are not present within the Study Area.	No further actions are recommended.
coastal dunes milk-vetch *Astragalus tener var. titi*	FE, SE, Rank 1B.1	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic). Elevation ranges from 0 to 165 feet (1 to 50 meters). Blooms Mar-May.	**No Potential.** Suitable habitat not present within Study Area. Coastal scrub and prairie habitats are not present within the Study Area.	No further actions are recommended.
twisted horsehair lichen *Bryoria spiralifera*	Rank 1B.1	North coast coniferous forest (immediate coast). Elevation ranges from 0 to 100 feet (0 to 30 meters).	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
pink Johnny-nip *Castilleja ambigua var. insalutata*	Rank 1B.1	Coastal prairie, coastal scrub. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms May-Aug.	**No Potential.** Suitable habitat not present within Study Area. Coastal scrub and prairie habitats are not present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Monterey Coast paintbrush *Castilleja latifolia*	Rank 4.3	Closed-cone coniferous forest, cismontane woodland (openings), coastal dunes, coastal scrub. Elevation ranges from 0 to 605 feet (0 to 185 meters). Blooms Feb-Sep.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Point Reyes ceanothus *Ceanothus gloriosus var. gloriosus*	Rank 4.3	Coastal bluff scrub, closed-cone coniferous forest, coastal dunes, coastal scrub. Elevation ranges from 15 to 1705 feet (5 to 520 meters). Blooms Mar-May.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Monterey ceanothus *Ceanothus rigidus*	Rank 4.2	Closed-cone coniferous forest, chaparral, coastal scrub. Elevation ranges from 5 to 1805 feet (3 to 550 meters). Blooms Feb-Apr(Jun).	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Congdon's tarplant *Centromadia parryi ssp. congdonii*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 755 feet (0 to 230 meters). Blooms May-Oct(Nov).	**No Potential.** Suitable habitat not present within Study Area. Study Area does not include valley and foothill grassland habitat.	No further actions are recommended.
Douglas' spineflower *Chorizanthe douglasii*	Rank 4.3	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 180 to 5250 feet (55 to 1600 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Fort Ord spineflower *Chorizanthe minutiflora*	Rank 1B.2	Chaparral (maritime), coastal scrub. Elevation ranges from 180 to 490 feet (55 to 150 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Monterey spineflower *Chorizanthe pungens var. pungens*	FT, Rank 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Elevation ranges from 5 to 1475 feet (3 to 450 meters). Blooms Apr-Jun(Jul-Aug).	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
robust spineflower *Chorizanthe robusta var. robusta*	FE, Rank 1B.1	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub. Elevation ranges from 5 to 985 feet (3 to 300 meters). Blooms Apr-Sep.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Jolon clarkia *Clarkia jolonensis*	Rank 1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland. Elevation ranges from 65 to 2165 feet (20 to 660 meters). Blooms Apr-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Lewis' clarkia *Clarkia lewisii*	Rank 4.3	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Elevation ranges from 95 to 3920 feet (30 to 1195 meters). Blooms May-Jul.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
San Francisco collinsia *Collinsia multicolor*	Rank 1B.2	Closed-cone coniferous forest, coastal scrub. Elevation ranges from 95 to 820 feet (30 to 250 meters). Blooms (Feb)Mar-May.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
seaside bird's-beak *Cordylanthus rigidus ssp. littoralis*	SE, Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub. Elevation ranges from 0 to 1690 feet (0 to 515 meters). Blooms Apr-Oct.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
branching beach aster *Corethrogyne leucophylla*	Rank 3.2	Closed-cone coniferous forest, coastal dunes. Elevation ranges from 5 to 195 feet (3 to 60 meters). Blooms May,Jul,Aug,Sep,Oct,Dec.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Rattan's cryptantha *Cryptantha rattanii*	Rank 4.3	Cismontane woodland, riparian woodland, valley and foothill grassland. Elevation ranges from 800 to 3000 feet (245 to 915 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat not present within Study Area. There is no riparian woodland and grassland habitat present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Hospital Canyon larkspur *Delphinium californicum ssp. interius*	Rank 1B.2	Chaparral (openings), cismontane woodland (mesic), coastal scrub. Elevation ranges from 635 to 3595 feet (195 to 1095 meters). Blooms Apr-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Hutchinson's larkspur *Delphinium hutchinsoniae*	Rank 1B.2	Broadleafed upland forest, chaparral, coastal prairie, coastal scrub. Elevation ranges from 0 to 1400 feet (0 to 427 meters). Blooms Mar-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
umbrella larkspur *Delphinium umbraculorum*	Rank 1B.3	Chaparral, cismontane woodland. Elevation ranges from 1310 to 5250 feet (400 to 1600 meters). Blooms Apr-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Eastwood's goldenbush *Ericameria fasciculata*	Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. Elevation ranges from 95 to 900 feet (30 to 275 meters). Blooms Jul-Oct.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
elegant wild buckwheat *Eriogonum elegans*	Rank 4.3	Cismontane woodland, valley and foothill grassland. Elevation ranges from 655 to 5005 feet (200 to 1525 meters). Blooms May-Nov.	**No Potential.** Suitable habitat not present within Study Area. There is no grassland habitat present within the Study Area.	No further actions are recommended.
Pinnacles buckwheat *Eriogonum nortonii*	Rank 1B.3	Chaparral, valley and foothill grassland. Elevation ranges from 980 to 3200 feet (300 to 975 meters). Blooms (Apr)May-Aug(Sep).	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species. No grassland habitat is present within the Study Area.	No further actions are recommended.
sand-loving wallflower *Erysimum ammophilum*	Rank 1B.2	Chaparral (maritime), coastal dunes, coastal scrub. Elevation ranges from 0 to 195 feet (0 to 60 meters). Blooms Feb-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Menzies wallflower *Erysimum menziesii*	FE, SE, Rank 1B.1	Coastal dunes. Elevation ranges from 0 to 115 feet (0 to 35 meters). Blooms Mar-Sep.	**No Potential.** Suitable habitat not present within Study Area. Coastal dune habitat is not present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
fragrant fritillary *Fritillaria liliacea*	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 5 to 1345 feet (3 to 410 meters). Blooms Feb-Apr.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Santa Lucia bedstraw *Galium clementis*	Rank 1B.3	Lower montane coniferous forest, upper montane coniferous forest. Elevation ranges from 3705 to 5840 feet (1130 to 1780 meters). Blooms (Apr)May-Jul.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Monterey gilia *Gilia tenuiflora ssp. arenaria*	FE, ST, Rank 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub. Elevation ranges from 0 to 150 feet (0 to 45 meters). Blooms Apr-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
San Francisco gumplant *Grindelia hirsutula var. maritima*	Rank 3.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland. Elevation ranges from 45 to 1310 feet (15 to 400 meters). Blooms Jun-Sep.	**Unlikely.** Suitable habitat not present within Study Area. No serpentine soils present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Gowen cypress *Hesperocyparis goveniana*	FT, Rank 1B.2	Closed-cone coniferous forest, chaparral (maritime). Elevation ranges from 95 to 985 feet (30 to 300 meters).	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Monterey cypress *Hesperocyparis macrocarpa*	Rank 1B.2	Closed-cone coniferous forest. Elevation ranges from 30 to 100 feet (10 to 30 meters).	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Kellogg's horkelia *Horkelia cuneata var. sericea*	Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. Elevation ranges from 30 to 655 feet (10 to 200 meters). Blooms Apr-Sep.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest and coastal dune habitat present within the Study Area.	No further actions are recommended.
Point Reyes horkelia *Horkelia marinensis*	Rank 1B.2	Coastal dunes, coastal prairie, coastal scrub. Elevation ranges from 15 to 2475 feet (5 to 755 meters). Blooms May-Sep.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
coast iris *Iris longipetala*	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Contra Costa goldfields *Lasthenia conjugens*	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	**Unlikely.** Suitable habitat not present within Study Area. Site has been disturbed and no vernal pool habitat is present within the Study Area.	No further actions are recommended.
beach layia *Layia carnosa*	FE, SE, Rank 1B.1	Coastal dunes, coastal scrub (sandy). Elevation ranges from 0 to 195 feet (0 to 60 meters). Blooms Mar-Jul.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
large-flowered leptosiphon *Leptosiphon grandiflorus*	Rank 4.2	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 4005 feet (5 to 1220 meters). Blooms Apr-Aug.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
small-leaved lomatium *Lomatium parvifolium*	Rank 4.2	Closed-cone coniferous forest, chaparral, coastal scrub, riparian woodland. Elevation ranges from 65 to 2295 feet (20 to 700 meters). Blooms Jan-Jun.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Tidestrom's lupine *Lupinus tidestromii*	FE, SE, Rank 1B.1	Coastal dunes. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat not present within Study Area. Study Area does not contain coastal dune habitat.	No further actions are recommended.
Carmel Valley bush-mallow *Malacothamnus palmeri var. involucratus*	Rank 1B.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 95 to 3610 feet (30 to 1100 meters). Blooms Apr-Oct.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Santa Lucia bush-mallow *Malacothamnus palmeri var. palmeri*	Rank 1B.2	Chaparral (rocky). Elevation ranges from 195 to 1180 feet (60 to 360 meters). Blooms May-Jul.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Carmel Valley malacothrix *Malacothrix saxatilis var. arachnoidea*	Rank 1B.2	Chaparral (rocky), coastal scrub. Elevation ranges from 80 to 3400 feet (25 to 1036 meters). Blooms (Mar)Jun-Dec.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Mt. Diablo cottonweed *Micropus amphibolus*	Rank 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 2705 feet (45 to 825 meters). Blooms Mar-May.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
marsh microseris *Microseris paludosa*	Rank 1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 1165 feet (5 to 355 meters). Blooms Apr-Jun(Jul).	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species. There is no coniferous forest or grassland habitat within the Study Area.	No further actions are recommended.
San Antonio Hills monardella *Monardella antonina ssp. antonina*	Rank 3	Chaparral, cismontane woodland. Elevation ranges from 1045 to 3280 feet (320 to 1000 meters). Blooms Jun-Aug.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
northern curly-leaved monardella *Monardella sinuata ssp. nigrescens*	Rank 1B.2	Chaparral (scr co.), coastal dunes, coastal scrub, lower montane coniferous forest (scr co., ponderosa pine sandhills). Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms (Apr)May-Jul(Aug-Sep).	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
woodland woolythreads *Monolopia gracilens*	Rank 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland. Elevation ranges from 325 to 3935 feet (100 to 1200 meters). Blooms (Feb)Mar-Jul.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
California adder's-tongue *Ophioglossum californicum*	Rank 4.2	Chaparral, valley and foothill grassland, vernal pools (margins). Elevation ranges from 195 to 1720 feet (60 to 525 meters). Blooms (Dec)Jan-Jun.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Gairdner's yampah *Perideridia gairdneri ssp. gairdneri*	Rank 4.2	Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Elevation ranges from 0 to 2000 feet (0 to 610 meters). Blooms Jun-Oct.	**No Potential.** Suitable habitat not present within Study Area. There is no grassland or vernal pool habitat present within the Study Area.	No further actions are recommended.
south coast branching phacelia *Phacelia ramosissima var. austrolitoralis*	Rank 3.2	Chaparral, coastal dunes, coastal scrub, marshes and swamps (coastal salt). Elevation ranges from 15 to 985 feet (5 to 300 meters). Blooms Mar-Aug.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Monterey pine *Pinus radiata*	Rank 1B.1	Closed-cone coniferous forest, cismontane woodland. Elevation ranges from 80 to 605 feet (25 to 185 meters).	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.
Michael's rein orchid *Piperia michaelii*	Rank 4.2	Coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest. Elevation ranges from 5 to 3000 feet (3 to 915 meters). Blooms Apr-Aug.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Yadon's rein orchid *Piperia yadonii*	FE, Rank 1B.1	Coastal bluff scrub, closed-cone coniferous forest, chaparral (maritime). Elevation ranges from 30 to 2475 feet (10 to 755 meters). Blooms (Feb)May-Aug.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species.	No further actions are recommended.
Hickman's popcornflower *Plagiobothrys chorisianus var. hickmanii*	Rank 4.2	Closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps, vernal pools. Elevation ranges from 45 to 605 feet (15 to 185 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
hooked popcornflower *Plagiobothrys uncinatus*	Rank 1B.2	Chaparral (sandy), cismontane woodland, valley and foothill grassland. Elevation ranges from 980 to 2495 feet (300 to 760 meters). Blooms Apr-May.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Hickman's cinquefoil *Potentilla hickmanii*	FE, SE, Rank 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater). Elevation ranges from 30 to 490 feet (10 to 149 meters). Blooms Apr-Aug.	**No Potential.** Suitable habitat not present within Study Area. Wetland and riparian habitats are not present within the Study Area.	No further actions are recommended.
angel's hair lichen *Ramalina thrausta*	Rank 2B.1	North coast coniferous forest. Elevation ranges from 245 to 1410 feet (75 to 430 meters).	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.
Lobb's aquatic buttercup *Ranunculus lobbii*	Rank 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 45 to 1540 feet (15 to 470 meters). Blooms Feb-May.	**No Potential.** Suitable habitat not present within Study Area. Vernal pool habitat is not present within the Study Area.	No further actions are recommended.
pine rose *Rosa pinetorum*	Rank 1B.2	Closed-cone coniferous forest, cismontane woodland. Elevation ranges from 5 to 3100 feet (2 to 945 meters). Blooms May-Jul.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
maple-leaved checkerbloom *Sidalcea malachroides*	Rank 4.2	Broadleafed upland forest, coastal prairie, coastal scrub, north coast coniferous forest, riparian woodland. Elevation ranges from 0 to 2395 feet (0 to 730 meters). Blooms (Mar)Apr-Aug.	**Unlikely.** Suitable habitat not present within the Study Area. Portions of the Study Area are frequently disturbed due to close proximity to residential homes and are dominated by non-native invasive species. There is no coniferous forest or riparian woodland habitat present within the Study Area.	No further actions are recommended.
Santa Cruz microseris *Stebbinsoseris decipiens*	Rank 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 30 to 1640 feet (10 to 500 meters). Blooms Apr-May.	**No Potential.** Suitable habitat not present within Study Area. Study Area does not contain shale or serpentine soils.	No further actions are recommended.
California screw-moss *Tortula californica*	Rank 1B.2	Chenopod scrub, valley and foothill grassland. Elevation ranges from 30 to 4790 feet (10 to 1460 meters).	**No Potential.** Suitable habitat not present within Study Area. Study Area does not contain grassland habitat.	No further actions are recommended.
Santa Cruz clover *Trifolium buckwestiorum*	Rank 1B.1	Broadleafed upland forest, cismontane woodland, coastal prairie. Elevation ranges from 340 to 2000 feet (105 to 610 meters). Blooms Apr-Oct.	**No Potential.** Suitable habitat not present within Study Area. Study Area is out of the species elevation range.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
saline clover *Trifolium hydrophilum*	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat not present within Study Area. Wetland habitat is not present within the Study Area.	No further actions are recommended.
Pacific Grove clover *Trifolium polyodon*	SR, Rank 1B.1	Closed-cone coniferous forest, coastal prairie, meadows and seeps, valley and foothill grassland. Elevation ranges from 15 to 1395 feet (5 to 425 meters). Blooms Apr-Jun(Jul).	**Unlikely.** Suitable habitat not present within the Study Area. There is no coniferous forest or grassland habitat present within the Study Area.	No further actions are recommended.
Monterey clover *Trifolium trichocalyx*	FE, SE, Rank 1B.1	Closed-cone coniferous forest (sandy, openings, burned areas). Elevation ranges from 95 to 1000 feet (30 to 305 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat not present within Study Area. There is no coniferous forest habitat present within the Study Area.	No further actions are recommended.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
BCC	USFWS Birds of Conservation Concern
SE	State Endangered
ST	State Threatened
SSC	CDFW Species of Special Concern
CFP	CDFW Fully Protected Animal
WBWG	Western Bat Working Group (High or Medium) Priority species
NMFS	Species under the Jurisdiction of the NMFS
Rank 1A	CRPR Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	CRPR Rank 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2B	CRPR Rank 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)
Rank 4	CRPR Rank 4: Plants of limited distribution – a watch list
Rank X.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
Rank X.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
Rank X.3	Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
Mammals				
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely.** Much of the Study Area was overgrown and no burrows indicative of use by badger were observed during the April 2020 site visit. In addition, no evidence of burrowing rodents was observed within the Study Area. The nearest documented occurrence is approximately 7 miles to the north from 1919 (CDFW 2020).	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
hoary bat *Lasiurus cinereus*	WBWG Medium	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 standing water to drink.	**Moderate Potential.** Several medium and large coast live oak trees with dense foliage were observed within the Study Area. In addition, the nearby Carmel River likely supports high prey abundance for hoary bats.	Trees and snags should be removed between October 1 and March 31 to the extent feasible. If trees are removed between April 1 and September 30, a roost habitat assessment should be conducted by a qualified biologist. If suitable roosts are detected during the habitat assessment, a pre-construction bat survey should be performed no more than 14 days prior to removal. If special status bat-species or maternity roosts are detected during surveys, species and roost specific measures will be developed in consultation with CDFW. See Section 5.2 for further details.
Monterey shrew *Sorex ornatus salarius*	SSC	Riparian, wetland and upland areas in the vicinity of the Salinas River delta. Prefers moist microhabitats. Feeds on insects and other invertebrates found under logs, rocks, and litter.	**Unlikely.** Although coast live oak forests are within the Study Area, the Study Area is outside of the Salinas River delta. In addition, the nearest documented occurrence is from 1938 and no occurrences have been documented since 1939 within 15 miles of the Study Area (CDFW 2020).	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
southern sea otter *Enhydra lutris nereis*	FT, CFP, SSC	Nearshore marine environments from about Año Nuevo, San Mateo County to Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates.	**No Potential.** No marine habitats are present within the Study Area that might support this species.	No further actions are recommended.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, WBWG High	This species is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Unlikely.** No caves or mines for suitable roosting habitat for Townsend's big-eared bat were observed within the Study Area. In addition, the nearest documented occurrence is approximately 3.5 miles to the south from 1948 (CDFW 2020). Townsend's big-eared bat may occasionally forage within the Study Area.	No further actions are recommended.
Birds				
ashy storm-petrel *Oceanodroma homochroa*	SSC	Marine species; nests in rocky crevices on offshore islands and rocks from southern Mendocino County to northern Baja California. Forages over open ocean for invertebrates and larval fishes.	**No Potential.** No marine habitats are present within the Study Area that might support this species	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
bank swallow *Riparia riparia*	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	**Unlikely.** The nearest documented breeding colony is approximately 8.9 miles northeast of the Study Area in Seaside (CDFW 2020). In addition, no vertical cliffs or bank cuts were observed within the Study Area. This species may occasionally forage in the Study Area.	No further actions are recommended.
black swift *Cypseloides niger*	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas.	**Unlikely.** No cliffs or sea bluffs were observed within the Study Area. In addition, the nearest documented occurrence is from 1952 (CDFW 2020). Black swifts may occasionally forage in the Study Area.	No further actions are recommended.
burrowing owl *Athene cunicularia*	SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**Unlikely.** No mammal burrows or burrow surrogates were observed within the Study Area during the April 2020 site visit. In addition, the majority of the Study Area is densely vegetated. Finally, the nearest documented occurrence is approximately 5.4 miles to the northeast in Monterey (CDFW 2020).	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**No Potential**. No suitable nesting or foraging marsh habitat is present within the Study Area.	No further actions are recommended.
California brown pelican *Pelecanus occidentalis californicus*	FD, SD, CFP	(Nesting colony) colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	**No Potential.** No suitable nesting habitat is present within the Study Area.	No further actions are recommended.
California condor *Gymnogyps californianus*	FE, SE, CFP	Year-round resident in vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	**No Potential.** California condor is known to nest within Monterey County, however no suitable nesting habitat is present within the Study Area. In addition, the Study Area is directly adjacent to a residential subdivision. This species may occasionally be observed flying over the Study Area.	No further actions are recommended.
California least tern *Sternula antillarum browni*	FE, SE, CFP	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	**No Potential.** The Study Area does not contain suitable sandy beaches to support nesting by the species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
golden eagle *Aquila chrysaetos*	CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**No Potential.** The Study Area does not contain suitable cliff habitat or large trees surrounded by open habitat to support nesting by this species. In addition the Study Area is directly adjacent to a residential subdivision. This species may occasionally be observed flying over the Study Area.	No further actions are recommended.
least bell's vireo *Vireo bellii pusillus*	FE, SE	Summer resident. Breeds in riparian habitat along perennial or intermittent rivers and creeks; prefers a multi-tiered canopy with dense early successional vegetation in the understory. Willows, mulefat and other understory species are typically used for nesting.	**Unlikely.** No suitable riparian habitat with multi-tiered canopy and dense understory is present within the Study Area. In addition, no documented occurrences are located within 15 miles of the Study Area (CDFW 2020).	No further actions are recommended.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Predominantly coastal marine. Nests in old-growth coniferous forests up to 30 miles inland along the Pacific coast, from Eureka to Oregon border, and in Santa Cruz/San Mateo Counties. Nests are highly cryptic, and typically located on platform-like branches of mature redwoods and Douglas firs. Forages on marine invertebrates and small fishes.	**No Potential.** The Study Area does not contain old-growth redwoods or Douglas firs suitable for nesting. In addition, no documented occurrences are located within 15 miles of the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Summer resident. Breeds in dense riparian forest and woodlands, usually in floodplain-like environments with standing or slow-moving water. Vegetative microhabitats used for nesting variable, and include willows and cottonwood.	**Unlikely.** The Study Area does not contain dense riparian forests suitable for nesting. In addition, no documented occurrences are located within 15 miles of the Study Area (CDFW 2020). Other willow flycatcher subspecies may occasionally forage within the Study Area.	Future project activities should occur to the extent feasible between September 1 and January 31, which is outside of the nesting season. If this is not possible, and project activities are initiated during the nesting season (February 1 through August 31), a nesting bird survey will be conducted by a qualified wildlife biologist no more than 14 days prior to the start of Project activities. If nests are identified, a no-disturbance buffer will be implemented to avoid impacts to nesting birds. See Section 5.3 for further details.
tricolored blackbird *Agelaius tricolor*	ST, SSC, RP	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**Unlikely.** The Study Area does not contain large tracts of emergent vegetation suitable for nesting. In addition, the nearest documented occurrence for tricolored blackbird is located approximately 9 miles east of the Study Area (CDFW 2020). Tricolored blackbird may occasionally fly through the Study Area.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No Potential**. The Study Area is located along the coast but does not contain beach, shore, or salt pond habitat to support nesting by the species.	No further actions are recommended.
yellow rail *Coturnicops noveboracensis*	SSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	**No Potential**. No suitable marsh or wet meadow habitat is present within the Study Area.	No further actions are recommended.
Reptiles and Amphibians				
California red-legged frog *Rana aurora draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**Moderate to High Potential.** This species was documented in the CNDDB within immediate vicinity of the Study Area in 2001 (CNDDB Occurrence No. 472) (CDFW 2020). The Carmel River lagoon is considered to be occupied breeding habitat for California red-legged frog (DD&A 2016) and there is suitable upland dispersal habitat within the Study Area.	Mitigation measures include worker environmental awareness training, preconstruction surveys, construction monitoring, exclusion fence, covering trenches, work windows, delineating boundaries, disposal of trash, no mon-filament netting, and speed limit restrictions. See section 5.2 for further details.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
California tiger salamander *Ambystoma californiense*	FT, ST	Populations in Santa Barbara and Sonoma counties currently listed as endangered. Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Seasonal ponds and vernal pools are crucial to breeding. Adults utilize mammal burrows as aestivation habitat.	**Unlikely.** No seasonal ponds suitable for California tiger salamander breeding were observed within the Study Area. In addition, the nearest documented occurrence is 2.3 miles southeast of the Study Area (CDFW 2020).	No further actions are recommended.
black legless lizard *Anniella pulchra nigra*	SSC, FS sensitive	Sand dunes and sandy soils in the Monterey Bay and Morro Bay regions. Inhabit sandy soil/dune areas with bush lupine and mock heather as dominant plants. Moist soil is essential.	**Unlikely.** One documented occurrence is recorded within 0.2 mile of the Study Area (CDFW 2020). However no suitable dunes or mock heather and bush lupine-dominated vegetation communities were observed in the Study Area. In addition, the coast live oak woodland and scrub vegetation communities observed onsite were very densely vegetated and not suitable for this species.	No further actions are recommended.
Blainville's (Coast) horned lizard *Phrynosoma blainvillii (coronatum)*	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Prefers friable, rocky, or shallow sandy soils for burial; open areas for sunning; bushes for cover; and an abundant supply of ants and other insects.	**Unlikely.** Although suitable oak woodland habitat was observed in the Study Area, no harvester ants (*Pogonomyrmex* sp.), which serve as primary prey for coast horned lizard were observed within the Study Area. The majority of Study Area was also densely vegetated, which precludes areas for sunning. In addition, the nearest documented occurrence of this species is 6.8 miles to the southeast (CDFW 2020).	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
coast range newt *Taricha torosa torosa*	SSC (only in Monterey co. & south)	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 kilometer to breed in ponds, reservoirs and slow moving streams.	**Unlikely.** No ponds or reservoirs for breeding were observed in the Study Area. Potential suitable breeding habitat may be present within the Carmel River lagoon to the north of the Study Area, however the nearest documented occurrence of coast range newt is 2.4 miles southeast of the Study Area (CDFW 2020). This species was also not detected in adjacent habitat during surveys for the Carmel River Floodplain and Environmental Enhancement Project in 2019 (DD&A 2019).	No further actions are recommended.
foothill yellow-legged frog *Rana boylii*	SC, SSC	Found in or near rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**No Potential.** The Study Area does not contain suitable rocky stream habitat. One historic occurrences was documented within 1 mile of the Study Area, however this record is from 1907 and this population is now considered possibly extirpated (CDFW 2020).	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
western pond turtle *Actinemys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying.	**Unlikely.** The nearest documented occurrence for western pond turtle is less than 0.1 mile from the Study Area, however this record is associated the Carmel River lagoon to the north of the Study Area (CDFW 2020). At its closest, the Study Area is approximately 130 feet from the Carmel River and does not contain suitable aquatic habitat with pools and basking sites or open grassy fields for egg laying.	No further actions are recommended.
Fishes				
steelhead - south/central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** The Study Area does not contain any aquatic habitats that's are known to support this species.	No further actions are recommended.
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; requires fairly still but not stagnant water and high oxygen levels.	**No Potential.** The Study Area does not contain any aquatic habitats that's are known to support this species.	No further actions are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURENCE	RECOMMENDATIONS
Invertebrates				
Smith's blue butterfly *Euphilotes enoptes smithi*	FE, SSI	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: *Eriogonum latifolium* and *Eriogonum parvifolium* are utilized as both larval and adult foodplants.	**Unlikely.** The plant communities in the Study Area were generally dense and no suitable coastal dunes or coastal sage scrub plant communities were observed within the Study Area. In addition, no host plants for Smith's blue butterfly were observed within the Study Area.	No further actions are recommended.
monarch butterfly *Danaus plexippus*	None (Winter roost sites protected by CDFW)	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**Unlikely.** The Study Area does not contain wind-protected tree groves to support roosting by this species. Monterey cypress stands observed within the Study Area are limited in size and not wind-protected. Monarchs may occasionally be observed migrating through the Study Area.	No further actions are recommended.
western bumble bee Bombus occidentalis	SC	Once widespread in the western United States and Canada, populations of this insect have drastically declined in recent decades. Pollinates a variety of wild flowering plants and crops. Nests in the ground, usually in association with small mammal burrows with sunny aspects. Current populations are thought to be restricted to high elevation sights in the Sierras with scattered occurrences on the northern California coast (Xerces, 2020).	**No Potential**. The Study Area is outside of this species documented current range (Xerces 2020).	No further actions are recommended.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
SE	State Endangered
ST	State Threatened
SR	State Rare
CFP	CDFW Fully Protected Species
SSC	CDFW Species of Special Concern
BCC	USFWS Bird of Conservation Concern
SSI	Special Status Invertebrate
WBWG	Western Bat Working Group High or Medium Priority species
RP	Recovery Plan exists for this species
Rank 1A	CNPS Rank 1A: Plants presumed extinct in California
Rank 1B	CNPS Rank 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2	CNPS Rank 2: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CNPS Rank 3: Plants about which CNPS needs more information (a review list) *[not special status]*

Species Evaluations:

No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Present. Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

(A) Representative photo facing south of iceplant mats within the proposed staging area.

(B) Representative north-facing photo of Mariposa Court at the eastern edge of the Project Area.

(C) West-facing photo of coast live oak woodland adjacent to a landscaped backyard within the eastern portion of the Project Area.

(D) North-facing photo coastal brambles on a steep slope bordered by coast live oak woodlands in the eastern portion of the Project Area.

(E) West-facing view of landscape/ornamental vegetation bordered by coast live oak woodland in the eastern portion of the Project Area.

(F) North-facing view of coastal brambles on a steep slope bordered by coast live oak woodlands in the center of the Project Area.

(G) South-facing view of the proposed access route through landscaped turf in the center of the Project Area.

(H) West-facing view of iceplant mats and landscape/ornamental vegetation in the center of the Project Area.

(E) East-facing view of landscape/ornamental vegetation in a residential backyard bordered by a Monterey cypress stand.

(F) East-facing view of coastal brambles in the western portion of the Project Area.

(G) South-facing view of poison oak scrub at the western edge of the Project Area.

(H) Northwest-facing view of the Carmel River lagoon.

Appendix B – Arborist Report

ARBORIST REPORT

CARMEL MEADOWS LIFT STATION AND SEWER REPLACEMENT

CARMEL-BY-THE-SEA, MONTEREY, CALIFORNIA

Prepared for:

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WRA #30026
DECEMBER 2021

ENVIRONMENTAL CONSULTANTS

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LIST OF PREPARERS

Tali Ashurov – Project Manager
Carla Angulo – ISA Certified Arborist
Michael Rochelle – GIS Analyst

LIST OF ACRONYMS

ANSI	American National Standard Institution
BMP	Best management practices
GIS	Geographical Information System
LUP	Land Use Plan
WRA	WRA, Inc.

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1.0 INTRODUCTION

On December 9 and 10, 2021 WRA, Inc. (WRA) conducted an arborist survey of the proposed Carmel Meadows lift and sewer replacement project site, located off Mariposa Court and behind Ribera Road (Study Area) in Carmel-by-the-Sea, Monterey County, California. The survey was conducted by ISA-Certified Arborist, Carla Angulo (ISA #WE-13573A) for the purposes of identifying and documenting the presence of all "protected trees" as defined by *Chapter 21.64.260 Preservation of oak and other protected trees* of the Monterey County (County) Tree Ordinance within the Study Area (County 2021). This survey was conducted to fulfill a California Environmental Quality Act (CEQA) requirement for a qualified arborist to map, measure, and quantify all non-exempt trees greater than or equal to six (6) inches diameter at two (2) feet above grade within the Study Area.

GPS locations for all the protected trees surveyed within the Study Area and information regarding the species, size in diameter at two (2) feet above grade, estimated crown radius, estimated height, and health, condition, and structure ratings were collected and are included in this report. A table with all the relevant information pertaining to surveyed trees is provided in Appendix A. A tree survey location map is provided in Appendix B. Representative photographs are provided in Appendix C.

1.1 Study Area Description

The = proposed project site is approximately 1.41 acres, and predominantly consists of oak woodland, ice plant, landscaped backyards, developed land, cypress, and coastal brambles. The Study Area runs behind 20 houses along Ribera Road from 2795 Ribera Road on the west end to 2935 Ribera Road, including the Mariposa Drive cul-de-sac on the eastern end. Protected trees are located within some backyards and north of the sewer easement. The proposed project includes abandonment of the wastewater interceptor between manholes T603 and S609 via lift station installation and sewer line redirection as well as installation of sewer system improvements between manholes S601 and T604. Sewer improvements are understood to include pipe and manhole replacement, gravity sewer installation, and existing sewer rehabilitation along residential homes. The existing sewer pipeline will be left in place and no tree impacts are expected to occur along that structure. The project site is located within Monterey County and is subject to the Monterey County Land Use Plan (LUP).

1.2 Regulatory Background

1.2.1 Monterey County Tree Ordinance

Per Chapter 21.64.260 of the County Tree Ordinance regarding protected trees, "no oak or madrone or redwood tree six inches or more in diameter two feet above ground level shall be removed in the Carmel Valley Master Plan area without approval of the permit(s) required in Subsection 21.64.240D" (County 2021). No native tree six inches or more in diameter two feet above ground level shall be removed in the Cachagua Area Plan area without approval of the permit(s) required in Subsection 21.64.240D" (County 2021).

Native trees are:

a. Santa Lucia Fir (*Abies bracteate*);

b. Black Cottonwood (*Populus balsamifera ssp. Trichocarpa*);
c. Fremont Cottonwood (*Populus fremontii*);
d. Box Elder (*Acer negundo*);
e. Willows (*Salix spp.*);
f. California Laurel (*Umbellularia californica*);
g. Sycamores (*Platanus spp.*);
h. Oaks (*Quercus spp*.); and
i. Madrones (*Arbutus menziesii*).

"No oak tree six inches or more in diameter two feet above ground level may be removed in any other area of the County of Monterey designated in the applicable area plan as Resource Conservation, Residential, Commercial or Industrial (except Industrial, Mineral Extraction) without approval of the permit(s) required in Subsection 21.64.240D" (County 2021). No landmark oak trees are to be removed unless a permit is attained. Landmark oak trees are trees with a diameter of 24 inches at 2 feet above grade or trees that are visually or historically significant or are an exemplary specimen of their species.

Permits are required in the County for any person who plans to use equipment or labor to cut down or trim more than one-third of the green canopy of any trees previously specified. No one can poison or kill or destroy any tree previously specified (County 2021). The County ordinance also states that if trees are approved to be removed, relocation or replacement of each removed protected tree would be required, unless relocation or replacement causes hardship to the habitat (County 2021).

2.0 METHODS

On December 9 and 10, 2021, the Study Area was traversed on foot to inventory all trees as defined per the County of Monterey Ordinance. WRA's ISA-Certified Arborist surveyed the area and recorded relevant tree information for each surveyed tree including species, diameter at two (2) feet above grade, estimated crown radius, estimated height, and health, condition, and structure ratings. A picture of each tree was taken, and an aluminum tag was nailed on each tree if access was not an issue, the trees with no tag were given a GIS object identification number for purposes of mapping.

2.1 Tree Inventory

Locations of trees within the Study Area were recorded using a handheld GPS unit with sub-meter accuracy. Each tree was given an aluminum tree tag with a unique identification number or GIS given identification number is tree was not accessible which is included in Appendix A.

Diameter was calculated for surveyed trees by measuring the trunk diameter at two (2) feet above grade. Total diameter for multi-trunked trees was calculated by measuring each individual trunk and calculating the sum total of trunk diameters. In cases where multi-trunked trees had more than five main trunks, only the five largest trunks were measured. In cases where an irregular buttress or bulge occurred at two (2) feet above ground, measurements were taken above or below the irregular feature in order to best represent the size of the tree. In cases where homeowner fences prevented access to the trunk of the tree, diameter of the trunk was estimated.

2.2 Tree Assessment

General notes on the condition of trees were taken, including health, structure, and overall condition. Assessment of the health, structure, and overall condition of each tree was conducted according to the narratives listed in Table 1.

TABLE 1. RATING NARRATIVES FOR TREE ASSESSMENT

Health	
Good	Tree is free from symptoms of disease and stress.
Fair	Tree shows some symptoms of disease or stress including twig and small branch dieback, evidence of fungal / parasitic infection, thinning of crown, or poor leaf color.
Poor	Tree shows symptoms of severe decline.
Structure	
Good	Tree is free from major structural defects.
Fair	Tree shows some structural defects in branches but overall structure is stable.
Poor	Tree shows structural failure of a major branch or co-dominant trunk.
General Condition	
Good	Tree shows condition of foliage, bark, and overall structure characteristic of the species and lacking obvious defect, or disease.
Fair	Tree shows condition of foliage, bark, and overall structure characteristic of the species with some evidence of stress, defect, or disease.
Poor	Tree shows condition of foliage, bark, and overall structure uncharacteristic of the species with obvious evidence of stress, defect, or disease.

3.0 RESULTS

3.1 Tree Inventory

Ninety-eight (98) protected coast live oak trees (*Quercus agrifolia*) were identified and assessed in the Study Area. A complete list of all surveyed trees is presented in Appendix A. The GPS locations of surveyed trees are shown in Appendix B (some are slightly out of the Study Area due to canopy cover reducing GPS satellite accuracy). Trees range in size from 6.35 inches to 46.6 inches in diameter (measured at 2 feet above grade).

3.2 Tree Assessment

The condition, health, and structure of trees inventoried during this assessment ranged from poor to good, with most trees ranking good in health, structure, and general condition. Four trees were found to be suppressed ranking them in fair condition and 11 trees were found to have minor dieback ranking them in fair general health. Tree 461 was found to have major decay and dieback therefore ranking it in poor health and condition. Five trees, #390, #432, #458, #454 and #128, were found to have poor growth form or a significant lean and were ranked in fair health and condition. Table 2 below summarizes the assessment results for all protected trees surveyed.

TABLE 2. TREE ASSESSMENT RESULTS SUMMARY

CRITERIA ASSESSED/RATING	CONDITION	HEALTH	STRUCTURE
Good	66 (67.3%)	66 (67.3%)	83 (84.7%)
Fair	31 (31.6%)	36 (36.7%)	14 (14.3%)
Poor	0 (0%)	1 (1%)	2 (1%)

3.3 Tree Impact Assessment and Mitigation Summary

Tree impacts that require a permit from the County include removal or trimming more than one third of the green foliage. Potential impacts to trees do not require permits but can include encroachment into the dripline of any tree, which can encroach into the critical root zone and cause stress to trees and result in decline of the overall health of the tree. Potential impacts can also include trimming any lateral branch greater than 4 inches in diameter, which can result in stress in oak trees. Per the project plans, no direct impacts or removals are proposed to any of the trees surveyed within the Study Area since the proposed work will be performed in landscaped backyards (SRT Consultants 2019).

Potential impacts to all trees were analyzed by comparing tree survey data with the conceptual 10% design plans of the sewer pipeline replacement and installation (SRT Consultants 2019). A total of 35 trees have the potential to be impacted by the project during construction due to proximity, for full list of trees see Appendix A and Appendix B. Potential impacts include encroachment into the dripline of the tree and trimming of limbs greater than four (4) inches in diameter. Trees #382, #383, #384, #385, #386, and #387 could potentially be impacted due to machine access and trenching that can disrupt root systems (Appendix C. Photograph 1). Trees #429, #430, #431, #432, #433, #434, #435, #436, and #437 are located on a slope and care must be taken to not disturb the soil around them. Recommended mitigation measures to avoid potential impacts to protected trees in the vicinity of construction zone include installation of construction fencing at the dripline of all protected trees and the presence of an ISA-Certified Arborist during construction activities.

4.0 SUMMARY AND RECOMMENDATIONS

A total of 98 trees are protected and have been identified in the Study Area. No trees will be removed within the project. Sixty-three (63) trees have no impacts, and 35 trees could have potential impacts based on comparison of project plans and tree survey data collected (SRT Consultants 2019). The following mitigation measure would be required to be implemented for the project in order to avoid impacting 35 oak trees during construction: The applicant shall install construction fencing at the dripline of all protected trees in the Study Area, where machinery will work. All equipment will be maintained and stored in the designated staging area ensuring that the tree protection zone is established. Fence material shall be high visibility construction fencing and have a height of four feet. If work must occur within dripline, the trunk of the tree shall be wrapped with orange construction fencing and waddles up to 6 feet to prevent damage to trunk. Trimming of trees to provide access for machines and equipment shall be done with a hand saw or electrical saw, and no major limbs measuring four (4) inches in diameter 0.5 feet from the branch union shall be removed. If any root trimming is required, it should be done at 90 degrees to the grade, at the node and only up to two (2) inches in diameter (ANSI 2017). No stockpiling of excavated soil during trenching shall be placed within the dripline of any protected tree.

5.0 REFERENCES

ANSI 2017 — ANSI A300 Pruning Standard - Part 1. 2017. American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning). 33 pp.

Google Earth 2021 — Google Earth. 2021. Aerial Photography 1993-2021.

County 2021 — County of Monterey, California – Code of Ordinances (County). 2021. Title 16 – Environment. Chapter 16.60 – Preservation of Oak and other protected trees. Ord. No. 5135, § 20, 7-7-2009. https://library.municode.com/ca/monterey_county/codes/code_of_ordinances?nodeId=TIT16EN_CH16.60PROAOTPRTR&showChanges=true

County 2021 — County of Monterey, California – Code of Ordinances (County). 2021. Title 21 – Zoning. Chapter 21.64 – Special Regulations. Subsection 21.64.260 - Preservation of oak and other protected trees. Ordinance No. 5135, § 138, 7-7-2009. Version December 2, 2021. https://library.municode.com/ca/monterey_county/codes/code_of_ordinances?nodeId=TIT21ZO_CH21.64SPRE_21.64.260PROAOTPRTR01

SRT Consultants 2019 — SRT Consultants. 2019. Carmel Meadows Lift Station Feasibility Study. Proposed Sewer Main Plan and Profile. C02.

APPENDIX A – TREE SURVEY TABLE

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Appendix A. Carmel Meadows Protected Tree Survey, December 2021

Tree ID	Common Name	Species	Multistem	Total Diameter at 2 Feet (in)	Average Dripline (ft)	Height (ft)	Condition	General Health	Structure	Status	Potential Impacts
135	coast live oak	*Quercus agrifolia*	no	16	10	29	Good	Good	Good	Protected	Yes
189	coast live oak	*Quercus agrifolia*	no	16.5	7	22	Good	Good	Good	Protected	No
190	coast live oak	*Quercus agrifolia*	no	12.3	2	16	Good	Fair	Good	Protected	No
191	coast live oak	*Quercus agrifolia*	no	12.2	2	22	Good	Good	Good	Protected	No
195	coast live oak	*Quercus agrifolia*	no	14.2	3	22	Good	Good	Good	Protected	No
196	coast live oak	*Quercus agrifolia*	no	7.4	2	11	Fair	Poor	Good	Protected	No
374	coast live oak	*Quercus agrifolia*	no	8.6	1	18	Good	Good	Good	Protected	No
375	coast live oak	*Quercus agrifolia*	no	12.75	2	17	Fair	Fair	Good	Protected	No
381	coast live oak	*Quercus agrifolia*	no	16.5	2	35	Fair	Fair	Fair	Protected	No
382	coast live oak	*Quercus agrifolia*	no	8.6	1	25	Fair	Fair	Good	Protected	Yes
383	coast live oak	*Quercus agrifolia*	no	15.3	2	35	Good	Good	Good	Protected	Yes
384	coast live oak	*Quercus agrifolia*	no	12.4	3	35	Good	Good	Good	Protected	Yes
385	coast live oak	*Quercus agrifolia*	no	10.6	1	23	Fair	Fair	Good	Protected	Yes
386	coast live oak	*Quercus agrifolia*	no	9.55	1	20	Fair	Fair	Good	Protected	Yes
387	coast live oak	*Quercus agrifolia*	no	19	2	31	Good	Good	Good	Protected	Yes
388	coast live oak	*Quercus agrifolia*	no	8.45	2	23	Good	Good	Good	Protected	No
389	coast live oak	*Quercus agrifolia*	no	7.4	1	20	Good	Good	Good	Protected	No
390	coast live oak	*Quercus agrifolia*	no	9.4	2	12	Good	Good	Fair	Protected	No
391	coast live oak	*Quercus agrifolia*	no	17.5	3	35	Good	Good	Good	Protected	No
392	coast live oak	*Quercus agrifolia*	yes	14.4	2	30	Good	Good	Good	Protected	No
393	coast live oak	*Quercus agrifolia*	yes	9.4	1	13	Fair	Fair	Good	Protected	No
394	coast live oak	*Quercus agrifolia*	no	17	5	30	Good	Good	Good	Protected	No
395	coast live oak	*Quercus agrifolia*	no	11.1	4	28	Fair	Good	Good	Protected	No
396	coast live oak	*Quercus agrifolia*	yes	18.7	5	20	Good	Good	Good	Protected	No
397	coast live oak	*Quercus agrifolia*	yes	10.4	1	11	Good	Good	Good	Protected	No
398	coast live oak	*Quercus agrifolia*	no	8.3	2	24	Fair	Fair	Fair	Protected	No
399	coast live oak	*Quercus agrifolia*	no	12.1	4	31	Good	Good	Good	Protected	No
401	coast live oak	*Quercus agrifolia*	no	12.5	4	32	Fair	Fair	Good	Protected	No
402	coast live oak	*Quercus agrifolia*	no	9.5	3	30	Good	Fair	Good	Protected	No
403	coast live oak	*Quercus agrifolia*	no	8.5	3	18	Good	Good	Good	Protected	No
404	coast live oak	*Quercus agrifolia*	no	10	3	18	Good	Good	Good	Protected	No

Tree ID	Common Name	Species	Multistem	Total Diameter at 2 Feet (in)	Average Dripline (ft)	Height (ft)	Condition	General Health	Structure	Status	Potential Impacts
405	coast live oak	*Quercus agrifolia*	no	12.5	4	26	Good	Good	Good	Protected	No
406	coast live oak	*Quercus agrifolia*	no	18.2	4	40	Good	Good	Good	Protected	No
407	coast live oak	*Quercus agrifolia*	no	22.6	3	30	Good	Good	Good	Protected	No
409	coast live oak	*Quercus agrifolia*	no	14.9	3	31	Good	Good	Good	Protected	No
410	coast live oak	*Quercus agrifolia*	yes	19.3	3	20	Good	Good	Good	Protected	No
411	coast live oak	*Quercus agrifolia*	no	15.8	3	20	Good	Good	Good	Protected	No
412	coast live oak	*Quercus agrifolia*	yes	16.6	2	21	Fair	Fair	Good	Protected	No
413	coast live oak	*Quercus agrifolia*	yes	20	3	23	Good	Good	Good	Protected	No
416	coast live oak	*Quercus agrifolia*	yes	42.2	5	30	Good	Good	Good	Protected	No
417	coast live oak	*Quercus agrifolia*	yes	31.2	5	30	Good	Good	Fair	Protected	No
418	coast live oak	*Quercus agrifolia*	no	14.2	3	28	Fair	Good	Good	Protected	No
419	coast live oak	*Quercus agrifolia*	no	13.6	2	28	Fair	Fair	Good	Protected	No
420	coast live oak	*Quercus agrifolia*	no	9.3	3	26	Fair	Fair	Fair	Protected	No
421	coast live oak	*Quercus agrifolia*	yes	18.3	5	28	Good	Good	Good	Protected	No
422	coast live oak	*Quercus agrifolia*	no	12.2	2	30	Good	Good	Good	Protected	No
423	coast live oak	*Quercus agrifolia*	no	9	3	28	Good	Good	Good	Protected	No
424	coast live oak	*Quercus agrifolia*	no	11.3	3	22	Good	Good	Good	Protected	No
425	coast live oak	*Quercus agrifolia*	no	7.25	2	18	Fair	Good	Good	Protected	No
426	coast live oak	*Quercus agrifolia*	no	11.1	2	30	Good	Fair	Good	Protected	No
427	coast live oak	*Quercus agrifolia*	no	14.3	3	30	Good	Good	Fair	Protected	No
429	coast live oak	*Quercus agrifolia*	no	10	3	28	Fair	Fair	Good	Protected	Yes
430	coast live oak	*Quercus agrifolia*	yes	24.5	4	30	Good	Good	Good	Protected	Yes
431	coast live oak	*Quercus agrifolia*	no	9.9	2	30	Good	Good	Good	Protected	Yes
432	coast live oak	*Quercus agrifolia*	no	8.85	2	28	Fair	Fair	Fair	Protected	Yes
433	coast live oak	*Quercus agrifolia*		24.7	3	30	Good	Fair	Good	Protected	Yes
435	coast live oak	*Quercus agrifolia*	yes	23.7	5	30	Fair	Fair	Good	Protected	Yes
436	coast live oak	*Quercus agrifolia*	yes	26.6	4	35	Good	Good	Fair	Protected	Yes
437	coast live oak	*Quercus agrifolia*	no	18.5	4	32	Fair	Fair	Fair	Protected	Yes
438	coast live oak	*Quercus agrifolia*		12.4	4	25	Good	Good	Good	Protected	No
441	coast live oak	*Quercus agrifolia*	no	7.1	2	16	Fair	Fair	Fair	Protected	No
442	coast live oak	*Quercus agrifolia*	yes	36.4	3	30	Fair	Fair	Fair	Protected	No
439	coast live oak	*Quercus agrifolia*	no	7.65	4	25	Fair	Fair	Fair	Protected	No
440	coast live oak	*Quercus agrifolia*	no	17.5	2	35	Good	Good	Good	Protected	No
443	coast live oak	*Quercus agrifolia*	no	14.95	5	35	Good	Good	Good	Protected	No
445	coast live oak	*Quercus agrifolia*	no	14.3	2	35	Good	Good	Good	Protected	No

Tree ID	Common Name	Species	Multistem	Total Diameter at 2 Feet (in)	Average Dripline (ft)	Height (ft)	Condition	General Health	Structure	Status	Potential Impacts
446	coast live oak	*Quercus agrifolia*	no	7.4	2	30	Good	Good	Good	Protected	No
447	coast live oak	*Quercus agrifolia*	no	10.6	2	30	Good	Good	Good	Protected	No
448	coast live oak	*Quercus agrifolia*	no	7.7	1	20	Good	Fair	Good	Protected	No
449	coast live oak	*Quercus agrifolia*	no	15.6	7	40	Good	Good	Good	Protected	No
450	coast live oak	*Quercus agrifolia*	no	15	2	35	Good	Good	Good	Protected	No
451	coast live oak	*Quercus agrifolia*	yes	38.3	5	32	Good	Fair	Good	Protected	No
452	coast live oak	*Quercus agrifolia*	no	12.5	3	30	Good	Good	Good	Protected	No
453	coast live oak	*Quercus agrifolia*	yes	42.25	8	35	Good	Good	Good	Protected	No
456	coast live oak	*Quercus agrifolia*	no	14.5	2	25	Good	Good	Good	Protected	No
457	coast live oak	*Quercus agrifolia*	no	14.5	3	40	Good	Good	Good	Protected	No
460	coast live oak	*Quercus agrifolia*	no	10.6	2	35	Fair	Good	Good	Protected	No
461	coast live oak	*Quercus agrifolia*	no	11.6	1	35	Fair	Fair	Poor	Protected	Yes
462	coast live oak	*Quercus agrifolia*	yes	41.4	4	35	Good	Good	Good	Protected	Yes
463	coast live oak	*Quercus agrifolia*	yes	19.8	2	20	Good	Good	Good	Protected	Yes
464	coast live oak	*Quercus agrifolia*	no	7.4	1	15	Fair	Good	Good	Protected	Yes
465	coast live oak	*Quercus agrifolia*	no	6.7	1	16	Good	Good	Good	Protected	Yes
466	coast live oak	*Quercus agrifolia*	no	7.7	2	22	Fair	Good	Good	Protected	Yes
467	coast live oak	*Quercus agrifolia*	no	9.4	2	25	Good	Fair	Good	Protected	Yes
468	coast live oak	*Quercus agrifolia*	no	8.1	2	22	Good	Good	Good	Protected	Yes
469	coast live oak	*Quercus agrifolia*	no	8.5	2	23	Good	Good	Good	Protected	Yes
470	coast live oak	*Quercus agrifolia*	yes	18.3	3	25	Fair	Good	Good	Protected	Yes
458	coast live oak	*Quercus agrifolia*	no	6.55	1	22	Fair	Good	Fair	Protected	Yes
459	coast live oak	*Quercus agrifolia*	yes	12.8	3	22	Fair	Fair	Good	Protected	Yes
454	coast live oak	*Quercus agrifolia*	no	6.35	1	17	Fair	Fair	Fair	Protected	Yes
128	coast live oak	*Quercus agrifolia*	no	8	3	7	Fair	Fair	Good	Protected	Yes
129	coast live oak	*Quercus agrifolia*	no	8	2	16	Fair	Good	Good	Protected	Yes
130	coast live oak	*Quercus agrifolia*	no	10	2	35	Good	Good	Good	Protected	Yes
131	coast live oak	*Quercus agrifolia*	yes	18	5	20	Good	Fair	Good	Protected	Yes
132	coast live oak	*Quercus agrifolia*	no	9	1	18	Good	Fair	Good	Protected	Yes
133	coast live oak	*Quercus agrifolia*	yes	43	17	40	Good	Good	Good	Protected	Yes
134	coast live oak	*Quercus agrifolia*	yes	32	5	35	Good	Good	Good	Protected	Yes
474	coast live oak	*Quercus agrifolia*	yes	19	2	20	Good	Good	Good	Protected	No

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APPENDIX B – TREE SURVEY MAP

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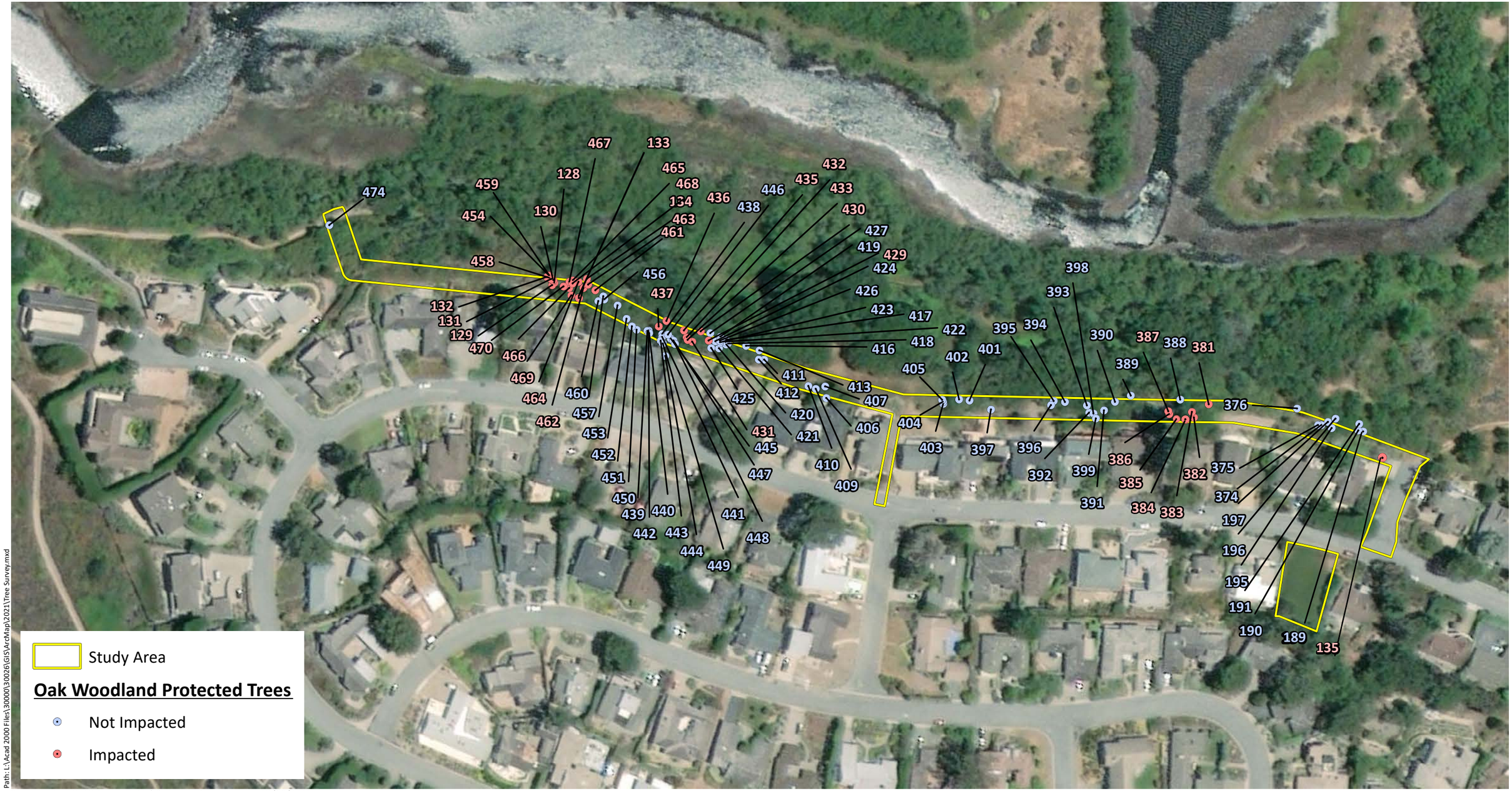

Path: I:\Acad 2000 Files\30000\30026\GIS\ArcMap\2021\Tree Survey.mxd

Sources: Vivid 2019 Aerial, WRA | Prepared By: mrochelle, 12/16/2021

Appendix B. Oak Woodland Protected Trees

Carmel Meadows Lift Station
Carmel Area Wastewater District
Monterey County, CA

0 200 400 Feet

wra ENVIRONMENTAL CONSULTANTS

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APPENDIX C – REPRESENTATIVE PHOTOGRAPHS

Photograph 1. Trees #382 - #387, protected coast live oaks, behind address 2905 Ribera Road. These trees are adjacent to the new sewer replacement.

Photograph 2. Protected trees #429 - #437 behind 2805 Ribera Road. These trees are on a slope at the northeastern edge of the Study Area.

Photograph 3. Trees on a slope and above manhole to be cleaned out between addresses 2805 and 2795 Ribera Road.

Photograph 4. Trees #460 - #470 , all protected coast live oaks, behind 2785 Ribera Road within the Study Area. These trees are along proposed replacement sewer pipeline alignment.

Photograph 5. Trees #468 - #470, all protected coast live oaks, behind 2785 Ribera Road within the Study Area along proposed replacement sewer pipeline alignment.

Appendix C – Cultural Resources Inventory Report Executive Summary

Confidential – Not for Public Distribution

Cultural Resources Survey Report

CARMEL MEADOWS LIFT STATION AND SEWER REPLACEMENT PROJECT MONTEREY COUNTY, CALIFORNIA

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LIST OF PREPARERS

Robin Hoffman – Principal Investigator (cultural resources)/Author

LIST OF ACRONYMS

C-APE	CEQA Area of Potential Effects
California Register	California Register of Historical Resources
CAWD	Carmel Area Wastewater District
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
HSC	California Health and Safety Code
NAHC	California Native American Heritage Commission
National Register	National Register of Historic Places
NWIC	Northwest Information Center
OHP	California Office of Historic Preservation
PRC	California Public Resources Code
RPA	Registered Professional Archaeologist
SCA	Society for California Archaeology
SLF	(NAHC) Sacred Lands File
SOIS	U.S. Secretary of the Interior's Professional Qualifications Standards
USC	United States Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
WRA	WRA, Inc.

NADB REPORT CITATION

Author(s):	Hoffman, Robin
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Title:	Cultural Resources Survey Report: Carmel Meadows Lift Station Project, Monterey County, California
Type:	Unpublished report
Organization:	WRA, Inc.
State:	California
County:	Monterey
Town:	Carmel-by-the-Sea (Vicinity)
Work Type:	Archeological Identification Study (Phase I); Historical Resources Study; Field Reconnaissance, Intensive
Keyword(s):	no impact on historical resources; no impact on archaeological resources; wastewater; no cultural resources identified
Federal Agency:	[none]
Local Agency:	Carmel Area Wastewater District
Acreage:	1.25 acres

STATEMENT OF CONFIDENTIALITY

This document identifies cultural resources locations, public disclosure of which may violate both federal and state laws. Federal regulations applicable to such disclosure include, but may not be limited to, Section 304 of the National Historic Preservation Act (54 United States Code [USC] § 307103) and the Archaeological Resources Protection Act (16 USC § 470h). California state regulations applicable to such disclosure include, but may not be limited to, California Government Code § 6250 *et seq*. and 6254 *et seq*. California Office of Historic Preservation policy prohibits disclosure of cultural resources location information to individuals other than those meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, Architectural History, Architecture, Historic Architecture, or History, or the requirements of the California State Personnel Board for Associate State Archaeologist or State Historian II.

EXECUTIVE SUMMARY

WRA, Inc. (WRA) prepared this report to document the methods and results of a cultural resources inventory completed for the Carmel Meadows Lift Station Project (Project), in Monterey County, California. The Carmel Area Wastewater District (CAWD) proposes the Project, which would install a small lift station and sewer improvements, including sewer line and manhole replacement, and existing sewer rehabilitation. The Project is subject to state environmental regulations, including the California Environmental Quality Act (CEQA), for which CAWD is the lead reviewing agency.

This document records the existing conditions of the Project site regarding cultural resources, for use in required Project documentation for review under CEQA. Work performed consisted of: a records search of the California Historical Resources Information System (CHRIS); correspondence with relevant Native American representatives, including the California Native American Heritage Commission (NAHC); research on existing cultural resources literature; an intensive-level pedestrian survey of the CEQA Area of Potential Effects (C-APE); and conclusions and recommendations.

CHRIS has no record of any previously recorded cultural resources in or adjacent to the C-APE. The NAHC Sacred Lands File search for the Project returned positive results for sacred sites in vicinity of the C-APE; this positive result is believed to be associated with the Mission San Carlos Borromeo del Rio Carmelo, which is well outside the C-APE.

In April 2020, WRA conducted a cultural resources pedestrian survey of the C-APE. Intensive pedestrian survey methods were used, consisting of walking parallel transects spaced at no more than 5 meters apart and inspecting the surface for cultural material (archaeological or architectural) or evidence thereof. During the pedestrian survey, WRA did not identify any cultural resources.

In summary, this study did not identify any cultural resources in the C-APE. As a result, WRA does not foresee that the Project would result in any adverse change in the significance of an historical resource or unique archaeological resource, as defined in CEQA. Recommendations for protocol for inadvertent discovery of archaeological resources or human remains during Project construction are included in the *Recommendations* section of this document.