



Heritage Ranch Water Resource Recovery Facility Project

Addendum to the Initial Study – Mitigated Negative
Declaration
SCH#2023110427

prepared by

Heritage Ranch Community Services District
4870 Heritage Road
Paso Robles, California 93446
Contact: Scott B. Duffield, P.E., General Manager

prepared with the assistance of

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

December 2024



RINCON CONSULTANTS, INC. SINCE 1994

Table of Contents

1	Introduction	1
2	Background and Project Description	2
2.1	Original Project	2
2.2	Modified Project Description	4
3	Environmental Impacts of the Modified Project	8
3.1	Final IS-MND Analysis Summary	8
3.2	Modified Project	9
3.3	Effects and Mitigation Measures	15
4	Conclusion.....	16
5	References and Preparers.....	17

Tables

Table 1	Combined Annual GHG Emissions – Modified Project.....	12
---------	---	----

Figures

Figure 1	Modified Project Site Location.....	5
----------	-------------------------------------	---

Appendices

- Appendix A Biological Resources Assessment
- Appendix B Paleontological Resources Assessment
- Appendix C Generator Noise Specifications

1 Introduction

This document is an Addendum to the Heritage Ranch Community Services District’s (HRCSD) Water Resource Recovery Facility Project Final Initial Study – Mitigated Negative Declaration (IS-MND) (State Clearinghouse No. 2023110427), which was adopted in January 2024 (herein referred to as the “Final IS-MND”) for the original Water Resource Recovery Facility Project (Original Project). Since adoption of the 2024 Final IS-MND, HRCSD has conducted a re-design of the Original Project and is now proposing modifications to the design of the proposed packaged membrane bioreactor (MBR) wastewater treatment plant at the existing HRCSD wastewater treatment plant property. In addition, HRCSD has determined replacement of the effluent pipeline and improvements to the spray field are no longer necessary to accomplish the project objectives. Therefore, for the purpose of compliance with the California Environmental Quality Act (CEQA), HRCSD has prepared this Addendum to the 2024 Final IS-MND to evaluate the revised project concept, herein referred to as the “Modified Project.”

In accordance with Section 15164 of the California Environmental Quality Act (CEQA) Guidelines, a lead agency shall prepare an addendum to a negative declaration if minor technical changes or additions are necessary and there are no substantial changes to the project, substantial changes to circumstances, and/or new information that would involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects identified in the original negative declaration. Specifically, the CEQA Guidelines state:

- The lead agency or responsible agency shall prepare an addendum to a previously certified negative declaration if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent negative declaration have occurred (CEQA Guidelines Section 15164[a]);
- An addendum need not be circulated for public review but can be included in or attached to the adopted negative declaration (CEQA Guidelines Section 15164[c]); and
- The decision-making body shall consider the addendum with the adopted negative declaration prior to making a decision on the project (CEQA Guidelines Section 15164[d]);
- A brief explanation of the decision not to prepare a subsequent negative declaration pursuant to CEQA Guidelines Section 15162 should be included in an addendum to a negative declaration, the lead agency’s findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence (CEQA Guidelines Section 15164[e]).

This Addendum has been prepared in accordance with relevant provisions of CEQA (as amended) and the CEQA Guidelines.

This Addendum describes the details of modifications to the project design, which have been identified since preparation of the Final IS-MND. This modified project design is referred to herein as the Modified Project. The analysis compares the environmental impacts of the Modified Project to those identified in the Final IS-MND for the Original Project and demonstrates 1) the environmental impacts of the Modified Project are within the scope of impacts identified in the Final IS-MND and 2) the Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant environmental effects.

2 Background and Project Description

The Final IS-MND for the Original Project was adopted in January 2024 (State Clearinghouse No. 2023110427) and is accompanied by a Mitigation Monitoring and Reporting Program (MMRP), which provides guidance for implementing the mitigation measures developed for the Original Project.

This section provides an overview of the Original Project and the Modified Project to provide context for evaluating potential changes to the nature of environmental impacts disclosed in the Final IS-MND that may result from the proposed modifications.

2.1 Original Project

The Original Project site was comprised of the existing HRCSD wastewater treatment plant at 4870 Heritage Road in Lake Nacimiento (Assessor's Parcel Number [APN] 012-181-085), a replacement effluent pipeline alignment (approximately 2,800-linear-foot alignment along Heritage Road and Gateway Drive), and an existing HRCSD spray field at the end of a private road that proceeds from the northern terminus of Parkway Circle (APN 012-361-018), all of which are located in Lake Nacimiento, a census-designated place in unincorporated San Luis Obispo County.

The Original Project included improvements to the existing HRCSD wastewater treatment plant (specifically, installation of a packaged MBR wastewater treatment plant), replacement of an existing effluent pipeline, and improvements to an existing HRCSD spray field to comply with Waste Discharge Order No. R3-2017-0026 from the Central Coast Regional Water Quality Control Board.

The Original Project consists of modification and demolition of the existing HRCSD wastewater treatment plant elements and construction of new Water Resource Recovery Facility (WRRF) elements with an average annual daily flow capacity of approximately 0.29 million gallons per day. Under the Original Project, the WRRF would produce tertiary treated effluent, a portion of which may be re-used in on-site processes, and would include process control, preliminary/secondary/tertiary treatment, solids handling, a disposal system, and a supervisory control and data acquisition (SCADA) system. In addition to treatment process infrastructure, the WRRF would include supporting facilities necessary to operate, maintain, secure, and preserve the site. These supporting facilities would consist of an office space for administrative support, a standby power generation enclosure for emergency backup power supply; an electrical building to house electrical and control equipment; and safety and spill prevention structures. A 350-kilowatt (kW) diesel backup generator was also proposed for installation.

In addition, the Original Project included installation of a new, eight-inch-diameter effluent pipeline between the southeastern corner of the existing HRCSD wastewater treatment plant and the intersection of Gateway Drive and Longhorn Lane. This replacement effluent pipeline would replace an existing six-inch-diameter pipeline. Under the Original Project, the replacement effluent pipeline in conjunction with the existing force main east of its terminus would convey secondary treated effluent to the outfall located at the existing HRCSD spray field. The average annual flow of the WRRF would be discharged to the outfall. As part of the Original Project, modifications at the spray field location would consist of demolition and abandonment of the sand filters in use at the existing spray field and replacement of the de-chlorination facilities with a more robust de-chlorination process.

Construction

Construction of the Original Project was expected to occur over an approximately three-year period between approximately June 2024 and August 2027. Construction activities would typically occur Monday through Friday from 8:00 a.m. to 5:00 p.m. Construction equipment and materials staging along with construction worker parking would occur within the project site. Approximately ten to 25 construction workers would be on site on any given day. If encroachment permitting is required, traffic control plans would be prepared for work within the Heritage Ranch Owners' Association rights-of-way.

Under the Original Project, construction activities at the wastewater treatment plant and spray field locations would consist of demolition, site preparation, grading, building construction, infrastructure installation, paving, site restoration, and architectural coating. In addition, rock breaking/processing using an excavator and rock breakers might be required at the influent splitter box and influent pipelines. The maximum depth of excavation would be approximately 15 feet, and approximately 4,000 cubic yards of soil would be excavated and used on site as fill material. Delivery and haul trucks would access the site from Heritage Road, and temporary lane closures may be required when large trucks are entering or exiting the site. Under the Original Project, approximately one to two truck trips per week would occur during construction to export demolition debris to the San Miguel Garbage Company in Paso Robles. In addition, some vegetation and tree removal would be required to accommodate the proposed WRRF, including removal of grasses and several small oaks previously planted by HRCSD staff. On-site utilities such as electrical, sewer, and water lines would likely be demolished or relocated within the project site.

Under the Original Project, construction activities for the replacement effluent pipeline would consist of demolition/pavement cutting, site preparation, trenching, pipeline installation and paving/site restoration. The replacement pipeline would be installed via open trenching methods, and the maximum depth of excavation would be approximately 4.25 feet. Approximately 1,165 cubic yards of soil would be excavated with approximately 1,025 cubic yards used on site as fill material. Approximately 140 cubic yards of soil material would be exported, and approximately 140 cubic yards of fill material for pipe bedding would be imported. Installation of the effluent pipeline would require temporary single-lane closures along Heritage Road and Gateway Drive for approximately three months to accommodate trenching and pipeline installation within public rights-of-way.

Operation and Maintenance

Under the Original Project, the WRRF would operate 24 hours per day, 365 days per year. Maintenance staff would visit the wastewater treatment plant and spray field locations daily, and approximately four to five additional vehicles would visit the project site each month for purposes such as chemical deliveries. Operations and maintenance activities for the replacement effluent pipeline would be periodic and comparable to operations and maintenance activities conducted for the existing pipeline that would be replaced.

Operation of the Original Project would consume approximately 745 megawatt-hours (MWh) per year, which would represent an increase of approximately 253 MWh per year as compared to existing conditions. The existing solar array at the HRCSD wastewater treatment plant would be utilized to supply approximately 300,000 kWh per year of the WRRF's total electricity demand with renewable energy. The backup generator would be tested upon initial start-up and on a monthly basis thereafter with each testing event lasting for approximately two to four hours.

The Original Project would include exterior lighting, which would consist of constant nighttime access lighting for roadways within the WRRF as well as motion-activated and manual lighting around each treatment process area, which are expected to be used once per week. All lighting on site would be dark sky-rated fixtures/types.

During operation of the Original Project, alkalinity chemicals such as sodium hydroxide or magnesium hydroxide would be stored in two identical double-walled tanks at the WRRF and delivered to the aeration basins through a pump system. Citric acid, sodium hypochlorite, sodium hydroxide, or similar cleaning chemicals would be used intermittently to perform preventive maintenance cleanings on the MBR units by removing organic and inorganic matter. These chemicals would similarly be stored in a chemical drum or a double-walled plastic tote when not in use. The on-site solids handling processes would require a water-soluble polymer to be used as a flocculant for conditioning of the sludge stream. Polymers would be delivered in double-walled plastic totes from the manufacturer and would be stored inside a building in close proximity to the sludge thickening and dewatering equipment. Similar to existing conditions, the proposed disinfection process under the Original Project would require use of sodium hypochlorite for chlorine disinfection and sodium bisulfite for de-chlorination. Sodium hypochlorite would be stored outdoors under a shade structure in double-walled plastic tanks at the WRRF. Sodium bisulfite would be stored at the existing spray field location in a prefabricated storage shed. Risks associated with handling these chemicals under the Original Project would be managed by using secondary containment structures at chemical storage locations, providing adequate access and egress space for chemical delivery trucks, developing hazardous material business response plans, and installing eye-wash and shower stations at each chemical storage and feed location, as appropriate.

The biosolids produced from the Original Project would be considered 40 Code of Federal Regulations Part 503 Sub-Class B biosolids. The volume of biosolids exported would be equal to or less than 20 cubic yards per week and would be transported by roll-off trucks with a 20-cubic yard capacity. The biosolids would be transported to private composting facilities in Santa Barbara or Kern County for beneficial reuse or to a landfill for disposal.

2.2 Modified Project Description

As with the Original Project, the Modified Project involves improvements to the existing HRCSD wastewater treatment plant to bring the existing system into compliance with water quality standards and provide capacity to serve existing and planned growth outlined in the County of San Luis Obispo's General Plan, North County Area Plan, and Heritage Ranch Village Standards. However, the Modified Project consists of modifications to the design of the proposed packaged MBR wastewater treatment plant at the existing HRCSD wastewater treatment plant property, making the replacement of the effluent pipeline and improvements to the spray field no longer necessary. To accommodate the revised design, the proposed area of impact at the existing HRCSD wastewater treatment plant property at 4870 Heritage Road in Lake Nacimiento has expanded by approximately 1.3 acres to a total of 6.8 acres. In addition, the replacement effluent pipeline alignment and spray field location are no longer part of the Modified Project site. Overall, the Modified Project site is approximately 1.3 acres smaller than the Original Project site, which was approximately 8.1 acres in size (5.5 acres at the existing wastewater treatment plant property, 1.0 acre for the replacement pipeline alignment, and 1.6 acres for the spray field). See Figure 1 for the Modified Project site location.

Figure 1 Modified Project Site Location¹



¹ The Modified Project site excludes the existing HRCSD solar array (located in the middle of the Modified Project site), which would not be impacted by the Modified Project.

The Modified Project primarily consists of installation of a new packaged MBR wastewater treatment plant in the southeastern portion of the project site on a new concrete pad. The MBR would include a dual-fine screen with washer compactor, anoxic/aerobic basin trains, and membrane filtration units. An MBR is an activated sludge-based treatment system that also incorporates membrane filtration for solids separation in lieu of a secondary clarifier. The membranes can handle higher solids flux rates than conventional secondary clarification can, thus reducing the footprint for the system. The membranes also provide tertiary filtration without requiring a separate tertiary filtration process. The MBR would also have new influent equalization incorporated into the process.

The Modified Project also involves the following improvements to the existing HRCSD wastewater treatment plant to accommodate the new MBR system:

- Modification of the three influent sanitary sewer force mains to be able to pump to either a new influent pump station or directly to Emergency Storage (Aeration Pond 1). Plug valves would be added, and existing sanitary sewer force mains would be extended to the MBR. Sewer force mains would extend from the southwestern edge of the project site to the MBR.
- Installation of a new influent pump station adjacent to the MBR to receive flow from the collection system's lift stations.
- Installation of a dewatering sludge storage tank and dewatering press adjacent to the MBR.
- Installation of a new, 25,000-gallon effluent storage tank and effluent pump station with vertical turbine pumps.
- Installation of a new chlorine dosing system.
- Installation of a new 600-kW diesel back-up generator (similar or equivalent to a Kohler Model 600RWOZVB with a Level 2 sound attenuation enclosure) on a concrete pad adjacent to the MBR (which would be 250 kW larger than the back-up generator included in the Original Project).
- Completion of various on-site yard piping upgrades to provide new bypass connections and drainage.
- Completion of electrical upgrades, including a new power service connection and remote Supervisory Control and Data Acquisition (SCADA) system.
- Repurposing of Aeration Pond 1 for emergency storage with a pond drain returning to the influent pump station and a self-priming influent pump station capable of pumping out of Pond 1 to the influent pump station.
- Decommissioning of Aeration Pond 2 and filling/removing interconnecting piping between Aeration Ponds 1 and 2. Aeration Pond 2 would only be used as a backup emergency storage pond should Aeration Pond 1 be filled.

Similar to the Original Project, the Modified Project would produce tertiary treated effluent but would have a lower average annual daily flow capacity of approximately 0.24 million gallons per day (a decrease of 0.05 million gallons per day). Unlike the Original Project, the Modified Project does not include construction of new office space, power generation enclosure, or an electrical building at the HRCSD wastewater treatment plant. The Modified Project would be required to be operational and in compliance with effluent limitations by September 30, 2027.

Construction

Construction of the Modified Project would occur over approximately 18 months, which is 18 months shorter than the Original Project, between April 2025 and April 2027. The days and hours of construction, location of construction staging and parking, average number of construction workers, and traffic control plans would remain the same as envisioned for the Original Project. Construction of the Modified Project would generally involve similar activities as the Original Project but would not include demolition, building construction, paving, site restoration, or architectural coating. As a result, no haul trips for demolition debris are anticipated. Approximately 7,000 cubic yards of soil would be excavated and re-used on site as fill material, which represents an increase of approximately 3,000 cubic yards of excavation. However, construction of the Modified Project would require a generally similar number of haul trips for soil import and export from the site. Unlike the Original Project, no tree removal would be required to accommodate the Modified Project.

Operation and Maintenance

The Modified Project would operate in a similar manner as envisioned for the WRRF under the Original Project. However, the Modified Project would produce a smaller volume of biosolids and therefore would only require approximately four to five trips per month in total for both chemical deliveries and biosolids hauling, which represents a decrease of approximately four trips per month as compared to the Original Project. Total electricity consumption on site would be approximately 900 MWh per year, which would represent an increase of approximately 408 megawatt-hours per year as compared to existing conditions. This estimated electricity consumption would also be approximately 155 MWh greater than that of the Original Project.

3 Environmental Impacts of the Modified Project

This Addendum evaluates potential environmental impacts that could result from the Modified Project in relation to the analysis in the Final IS-MND for the Original Project.

Appendix G of the CEQA Guidelines provides a checklist of environmental issue areas that are suggested as the issue areas that should be assessed in CEQA analyses. The 2024 IS-MND addressed in detail all of 20 suggested environmental issue areas, as listed below.

- | | |
|---------------------------------------|-----------------------------------|
| 1. Aesthetics | 11. Land Use and Planning |
| 2. Agriculture and Forestry Resources | 12. Mineral Resources |
| 3. Air Quality | 13. Noise |
| 4. Biological Resources | 14. Population and Housing |
| 5. Cultural Resources | 15. Public Services |
| 6. Energy | 16. Recreation |
| 7. Geology and Soils | 17. Transportation |
| 8. Greenhouse Gas Emissions | 18. Tribal Cultural Resources |
| 9. Hazards and Hazardous Materials | 19. Utilities and Service Systems |
| 10. Hydrology and Water Quality | 20. Wildfire |

The existing environmental conditions and the surroundings of the Modified Project are substantially the same as those described in the Final IS-MND. Potential environmental impacts of the Modified Project are analyzed below to determine whether environmental impacts are consistent with the impact analysis provided in the Final IS-MND and whether additional mitigation measures are required to minimize and/or avoid potential impacts.

3.1 Final IS-MND Analysis Summary

The Final IS-MND concluded the impacts of the Original Project to aesthetics, agriculture and forestry resources, air quality, energy, greenhouse gas emissions, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems would be less than significant with no mitigation required.

The Final IS-MND determined that the impacts of the Original Project to biological resources (special status species), cultural resources (archaeological resources), geology and soils (paleontological resources), hazards and hazardous materials (emergency response/evacuation), noise, transportation (circulation system programs/plans/ordinances/policies, emergency access), and wildfire (emergency response/evacuation) could be reduced to less-than-significant levels with implementation of mitigation. Mitigation measures included in the adopted Final IS-MND and required by the Mitigation Monitoring and Reporting Program for the Original Project included:

- **BIO-1:** Worker Environmental Awareness Program Training (Applicable to Spray Field Only)
- **BIO-2:** Pre-Construction Surveys and Biological Monitoring (Applicable to Replacement Effluent Pipeline and Spray Field Only)
- **BIO-3:** Construction Site Best Management Practices (Applicable to Spray Field Only)
- **BIO-4:** Avoidance and Minimization Measures for Nesting Birds (Applicable to All Project Components)
- **CR-1:** Unanticipated Discovery of Cultural Resources (Applicable to All Project Components)
- **GEO-1:** Paleontological Resources Monitoring and Mitigation (Applicable to WRRF Only)
- **HAZ-1:** Traffic Control Plan (Applicable to All Project Components)
- **NOI-1:** Operational Noise Reductions (Applicable to WRRF Only)

3.2 Modified Project

This discussion focuses on environmental resource areas for which mitigation was proposed in the Final IS-MND. It also includes the environmental resource areas of air quality, energy, and greenhouse gas (GHG) emissions due to the increased electricity consumption and larger generator size included in the Modified Project. The impacts of the Modified Project to the remaining environmental resource areas previously determined to be less than significant with no mitigation required would remain less than significant because the expanded project impact area remains within HRCSD's existing wastewater treatment plant property, the construction and operational parameters of the Modified Project are largely the same as those of the Original Project, and the Modified Project involves a smaller overall project impact area. As such, the Modified Project would not result in a new significant impact or a substantially more severe significant impact to these environmental resource areas.

Air Quality

The Modified Project would involve generally similar or less intensive construction activities as the Original Project and would therefore result in similar or fewer air pollutant emissions during construction. The Modified Project would also involve fewer vehicle trips to the project site during operations and maintenance activities because less frequent biosolids hauling would be required, which would reduce operational air pollutant emissions from mobile sources as compared to the Original Project. However, the Modified Project would include a back-up generator approximately twice the size of that included in the Original Project. As with the Original Project, the back-up generator would operate once each month for approximately four hours (48 hours per year) for maintenance and testing. Stationary source emissions of criteria air pollutants and toxic air contaminants (i.e., diesel particulate matter) associated with routine testing and maintenance of the back-up generator under the Modified Project would therefore be approximately twice those of the Original Project. However, even when doubling stationary source emissions associated with the back-up generator (see Tables 6 and 7 of the Final IS-MND), total operational air pollutant emissions would not have the potential to exceed the San Luis Obispo County Air Pollution Control District daily operational thresholds for reactive organic gases + nitrogen oxides, diesel particulate matter, dust, and carbon monoxide or annual operational thresholds for reactive organic gases + nitrogen oxides and dust. In particular, operational emissions of diesel particulate matter would remain below 1.25 pounds per day, which is the level at which San Luis Obispo County Air Pollution Control District (2023) recommends implementation of on-site Best Available Control technology measures and preparation of a Health Risk Assessment if sensitive receptors are within 1,000 feet. Therefore,

the Modified Project would not result in new significant impacts to air quality or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Biological Resources (Special Status Species)

The Modified Project site consists of an expanded project footprint within HRCSD's existing wastewater treatment plant property but does not include the replacement effluent pipeline alignment and spray field location. The updated Biological Resources Assessment (Appendix A) conducted for the Modified Project determined special status plant and wildlife species do not have potential to occur within the Modified Project site. As with the Original Project, native vegetation, namely the various trees within and adjacent to the wastewater treatment plant property, may provide suitable nesting habitat for common bird species, which are protected by the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. Although the Modified Project does not involve the tree removal proposed under the Original Project, impacts to common bird species may occur if active nests are present in the existing oak trees adjacent to the proposed work area within the wastewater treatment plant property during construction activities. Similar to the Original Project, indirect impacts (e.g., noise, dust) to nesting birds may occur during construction of the Modified Project, and as such, Mitigation Measure BIO-4 would remain applicable to the Modified Project and would reduce potential impacts to nesting birds to a less-than-significant level. However, Mitigation Measures BIO-1 through BIO-3, which were intended to address potential impacts to California red-legged frog (*Rana draytonii*; federally threatened, state Species of Special Concern), Coast Range newt (*Taricha torosa*; state Species of Special Concern), southwestern pond turtle (*Actinemys pallida*; federally proposed threatened, state Species of Special Concern), and two-striped gartersnake (*Thamnophis hammondi*; state Species of Special Concern) during construction of the replacement effluent pipeline and spray field improvements, are no longer applicable because the Modified Project does not include these activities. Furthermore, the Modified Project site does not contain sensitive natural communities or critical habitat; does not occur within a riparian habitat; and is not located within an Essential Connectivity Area or an area within the jurisdiction of a Habitat Conservation Plan or Natural Community Conservation Plan. The Modified Project also would not conflict with local policies and ordinances protecting biological resources (Appendix A). As such, the Modified Project would not result in new significant impacts to biological resources or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Cultural Resources (Archaeological Resources)

The Modified Project consists of an expanded project footprint and a greater volume of excavation within HRCSD's existing wastewater treatment plant property. The updated Cultural Resources Assessment (Losco et al. 2024) conducted for the Modified Project did not identify any known archaeological resources within the expanded project footprint. However, there is still the possibility for unanticipated discoveries during construction of the Modified Project, and Mitigation Measure CR-1 would remain applicable to the Modified Project and would reduce potential impacts to archaeological resources to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to cultural resources or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Energy

The Modified Project would involve generally similar or less intensive construction activities as the Original Project and would therefore result in similar or reduced energy use during construction. The Modified Project would also involve fewer vehicle trips to the project site during operations and maintenance activities because less frequent biosolids hauling would be required, which would reduce operational consumption of transportation fuels as compared to the Original Project. However, the Modified Project would result in approximately 1.6 times the electricity consumption of the Original Project and include a back-up generator approximately twice the size of that included in the Original Project. As with the Original Project, maintenance and testing of the back-up generator included in the Modified Project would require consumption of diesel fuels. As with the Original Project, the back-up generator would only be tested as necessary to ensure proper functioning in the event of a power outage. In addition, electricity consumption under the Modified Project would be necessary for HRCSD to provide its critical service of wastewater treatment for the local community in accordance with Waste Discharge Order No. R3-2017-0026 from the Central Coast Regional Water Quality Control Board, and the WRRF would be designed to use energy-efficient equipment, where feasible, in the interest of minimizing operational costs to HRCSD and its ratepayers. Similar to the Original Project, the Modified Project would also utilize electricity provided by the photovoltaic solar array located within the existing HRCSD wastewater treatment plant property to supply approximately 300 MWh of the project's electricity demand. Therefore, although the Modified Project would require increased electricity consumption and a larger back-up generator, the Modified Project would not result in the wasteful, inefficient, or unnecessary consumption of energy. Therefore, the Modified Project would not result in new significant impacts to energy or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Geology and Soils (Paleontological Resources)

The Modified Project consists of an expanded project footprint and a greater volume of excavation within HRCSD's existing wastewater treatment plant property. The updated Paleontological Resources Assessment (Appendix B) conducted for the Modified Project determined the additional impact area is underlain by Quaternary older alluvium with high paleontological sensitivity, similar to the Original Project. Therefore, as with the Original Project, Mitigation Measure GEO-1 would remain applicable to the Modified Project and would reduce potential impacts to paleontological resources to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to geology and soils or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Greenhouse Gas Emissions

The Modified Project would involve generally similar or less intensive construction activities as the Original Project and would therefore result in similar or fewer GHG emissions during construction. However, the Modified Project would result in approximately 1.6 times the electricity consumption of the Original Project and include a back-up generator approximately twice the size of that included in the Original Project. As a result, to conservatively estimate GHG emissions associated with the Modified Project, GHG emissions estimated for the Original Project were adjusted by multiplying operational GHG emissions from energy sources (i.e., electricity consumption) by 1.6 and stationary sources (i.e., back-up generator) by two. As shown in Table 1, GHG emissions associated with the Modified Project would be approximately 147 metric tons (MT) of carbon dioxide equivalents (CO₂e)

per year. This emissions level would be approximately 24 MT of CO₂e per year greater than the Original Project but would not exceed the threshold of 780 MT of CO₂e per year. Therefore, the Modified Project would not result in new significant impacts to GHG emissions or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Table 1 Combined Annual GHG Emissions – Modified Project

Emission Source	Annual Emissions (MT of CO₂e per year)
Construction¹	87
Operational	
Area ¹	<1
Energy ²	38
Mobile ¹	<1
Solid Waste ¹	1
Water ¹	1
Stationary ²	20
Total Emissions	147
Threshold	780
Threshold Exceeded?	No

MT = metric tons; CO₂e = carbon dioxide equivalents

¹ Source: Final IS-MND (HRCSD 2024)

² GHG emissions associated with energy sources (i.e., electricity consumption) were multiplied by 1.6 and GHG emissions associated with stationary sources (i.e., back-up generator) were multiplied by two to reflect the increased electricity consumption (approximately 1.6 times that of the Original Project) and increased generator size (approximately twice that of the Original Project) under the Modified Project.

Hazards and Hazardous Materials (Emergency Response/Evacuation)

Because the Modified Project no longer includes replacement of the effluent pipeline in the public rights-of-way of Heritage Road and Gateway Drive, the Modified Project would not require extended single-lane closures along these roadways during construction that could impede emergency response and evacuation. However, similar to the Original Project, construction activities under the Modified Project may require temporary, short-term lane closures on Heritage Road due to large delivery and haul trucks entering and exiting the wastewater treatment plant property. As such, Mitigation Measure HAZ-1 would remain applicable to the Modified Project and would reduce potential impacts related to emergency response and evacuation to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to hazards or hazardous materials or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Noise

The nearest noise-sensitive receivers to the wastewater treatment plant property are single-family homes approximately 180 feet to the southwest across Heritage Road. The Modified Project consists of an expanded project footprint within HRCSD’s existing wastewater treatment plant property. However, the expanded project footprint would not result in construction activities closer to the nearest sensitive receivers. In addition, the Modified Project would reduce construction noise

impacts to sensitive receivers in proximity to Heritage Road and Gateway Drive because it does not include replacement of the effluent pipeline. With regard to operational noise, the Modified Project would not include new heating, ventilation, and air conditioning equipment as proposed under the Original Project because a new office building would not be constructed. As a result, the Modified Project would reduce operational noise impacts associated with heating, ventilation, and air conditioning equipment at the nearest sensitive receivers. Similar to the Original Project, the Modified Project includes a new diesel backup generator that would be routinely tested and maintained during daytime hours. The backup generator would be larger in size under the Modified Project but would still be enclosed in a Level 2 Sound Attenuated Enclosure. Noise levels during testing of the larger generator would reach approximately 76 dBA L_{eq}^2 at a distance of 23 feet (see Appendix C for manufacturer specifications). The back-up generator would be located approximately 380 feet away from the nearest sensitive receiver, a residence at 2750 Black Horse Lane, under the Modified Project, which is approximately 200 feet further away than under the Original Project. At this distance, generator noise would reach approximately 52 dBA L_{eq} , which would be lower than the noise level estimated for the Original Project (53 dBA L_{eq}) but which would still exceed the daytime exterior noise limit for stationary noise sources set forth in San Luis Obispo County Code Section 22.10.120(B) of 50 dBA L_{eq} . Therefore, as with the Original Project, Mitigation Measure NOI-1 would remain applicable to the Modified Project. The following clarifications to Mitigation Measure NOI-1 (as shown in ~~strikeout~~/underline format) would be incorporated to reflect the larger generator size:

NOI-1 Operational Noise Reductions

HRCSD shall reduce operational noise levels from the project's emergency generator to not exceed the daytime exterior noise limit for stationary noise sources of 50 dBA L_{eq} contained in SLOCC Section 22.10.120(B). HRCSD shall achieve consistency with the noise limits by implementing one of the following measures:

- Site the generator at least ~~260~~ 459 feet away from the nearest residences;
- Select a generator model that emits noise levels at or below 67.5 dBA L_{eq} at 23 feet; or
- Install a solid barrier around the southern portion of the generator, tall enough to break the line of sight between the generator and closest residences. The barrier/enclosure shall be constructed of a material with a minimum weight of four pounds per square foot with no gaps or perforations to the south. The barrier may be constructed of, but is not limited to, masonry block, concrete panels, 1/8 inch thick steel sheets, 1-1/2 inch wood fencing, or 1/4 inch glass panels. If wood is used as the primary barrier component, the fence boards shall overlap or be of "tongue and groove" construction with a joining compound between the boards to ensure there would be no gaps or holes in the fence, and annual inspection and maintenance shall be conducted for the life of the project to ensure the barrier continues to perform to the minimum requirements.

Similar to the Original Project, implementation of Mitigation Measure NOI-1 would reduce the operational noise impacts of the Modified Project to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to noise or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

² dBA = A-weighted decibel; L_{eq} = equivalent noise level

Transportation (Circulation System Programs/Plans/Ordinances/Policies and Emergency Access)

Because the Modified Project no longer includes replacement of the effluent pipeline in the public rights-of-way of Heritage Road and Gateway Drive, the Modified Project would not require extended single-lane closures along these roadways during construction that could impede use of the circulation system or result in inadequate emergency access. However, similar to the Original Project, construction activities under the Modified Project may require temporary, short-term lane closures on Heritage Road due to large delivery and haul trucks entering and exiting the wastewater treatment plant property. As such, Mitigation Measure HAZ-1 would remain applicable to the Modified Project and would reduce potential impacts related to programs/plans/ordinances/policies addressing the circulation system and emergency access to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to transportation or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Wildfire (Emergency Response/Evacuation)

Because the Modified Project no longer includes replacement of the effluent pipeline in the public rights-of-way of Heritage Road and Gateway Drive, the Modified Project would not require extended single-lane closures along these roadways during construction that could impede emergency response and evacuation during a wildfire event. However, similar to the Original Project, construction activities under the Modified Project may require temporary, short-term lane closures on Heritage Road due to large delivery and haul trucks entering and exiting the wastewater treatment plant property. As such, Mitigation Measure HAZ-1 would remain applicable to the Modified Project and would reduce potential impacts related to emergency response and evacuation during a wildfire event to a less-than-significant level. As such, the Modified Project would not result in new significant impacts to wildfire or substantially increase the severity of significant impacts already identified in the Final IS-MND for the Original Project.

Mandatory Findings of Significance

Similar to the Original Project, the Modified Project would not result in significant and unmitigable impacts to the environment with respect to all environmental issues. This is largely because construction activities would be temporary, infrequent, and low-intensity, and operation would not significantly alter the environmental baseline condition. The Modified Project would not generate emissions of an air pollutant or greenhouse gas emission such that it would exceed SLOAPCD significance thresholds, which are intended to assess whether a project's contribution to existing cumulative air quality and GHG impacts would be considerable. Therefore, the project's contribution to cumulative air quality and GHG emissions impacts would not be cumulatively considerable. As discussed in Section 3.2, *Modified Project*, the Modified Project would be required to incorporate Mitigation Measure BIO-1 to reduce potential impacts nesting birds and Mitigation Measure CR-1 to reduce impacts to reduce potential impacts to cultural resources. As with the Original Project, the testing and maintenance of the back-up generator under the Modified Project could result in an exceedance of the daytime exterior noise limit for stationary noise sources of 50 dBA L_{eq} set forth in San Luis Obispo County Code Section 22.10.120(B). Therefore, as with the Original Project, Mitigation Measure NOI-1 would remain applicable to the Modified Project, and cumulative development projects would also be subject to compliance with the noise level limits established in San Luis Obispo County Code Chapter 23.06. As with the Original Project, the

Modified Project would be required to incorporate Mitigation Measure HAZ-1 to reduce potential impacts to emergency response, evacuation, and access associated with temporary lane closures during construction activities. There are no planned cumulative development projects in the vicinity of the Modified Project site that would require lane closures (County of San Luis Obispo 2024), and as such, no significant cumulative impact related to emergency response, evacuation, and access would occur.

Furthermore, as discussed throughout Section 3.2, *Modified Project*, the Modified Project would not 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal or have the potential to eliminate important examples of the major periods of California history or prehistory, similar to the Original Project. In addition, the Modified Project would result in similar impacts to human beings (air quality, hazards and hazardous materials, and noise) as the Original Project.

Therefore, the impacts of the Modified Project pertaining to the mandatory findings of significance would be similar to those of the Original Project, and the Modified Project would not result in new or substantially more severe significant impacts beyond those identified in the Final IS-MND.

3.3 Effects and Mitigation Measures

As described above, the Modified Project is consistent with the analysis of the Final IS-MND and would not result in new or substantially more severe significant environmental impacts beyond those identified in the Final IS-MND. Because the Modified Project no longer involves the replacement effluent pipeline or spray field modifications, Mitigation Measures BIO-1, BIO-2, BIO-3 are no longer applicable. The remaining mitigation measures identified in the Final IS-MND to address impacts to cultural resources, geology and soils (paleontological resources), hazards and hazardous materials (emergency response/evacuation), noise, transportation (circulation system programs/plans/ordinances/policies, emergency access), and wildfire (emergency response/evacuation) would remain applicable to the Modified Project.

4 Conclusion

As discussed in the preceding section, potential impacts associated with the Modified Project are consistent with potential impacts characterized and mitigated for in the adopted Final IS-MND for the Heritage Ranch Water Resource Recovery Facility Project. Substantive revisions to the Final IS-MND are not necessary because no new significant impacts or significant impacts of substantially greater severity than previously described would occur as a result of the Modified Project. Therefore, the following determinations have been made:

- No further evaluation of environmental impacts is required for the Modified Project;
- No Subsequent IS-MND is necessary pursuant to CEQA Guidelines Section 15162; and
- This Addendum is the appropriate level of environmental analysis and documentation for the Modified Project in accordance with CEQA Guidelines Section 15164.

Pursuant to CEQA Guidelines Section 15164(c), this Addendum will be included in the public record for the Modified Project. Documents related to this Addendum will be available at 4870 Heritage Road, Paso Robles, California 93446 or online at: <https://ceqanet.opr.ca.gov/Project/2023110427>.

5 References and Preparers

References

- Heritage Ranch Community Service District (HRCSD). 2024. Heritage Ranch Water Resource Recovery Facility Project, Final Initial Study – Mitigated Negative Declaration. State Clearinghouse No. 2023110427. <https://ceqanet.opr.ca.gov/2023110427> (accessed December 2024).
- Losco, A., S. Jimenez, R. Perzel, K. Victorino, S. Carmack. 2024. REVISED Heritage Ranch Water Resource Recovery Facility Project, San Luis Obispo County, California. Rincon Consultants Project No. 24-16883. Report on file at the Central Coast Information Center, Santa Barbara Museum of Natural History, California.
- San Luis Obispo County Air Pollution Control District. 2023. CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review - 2023 Administrative Update Version to APCD Board Adopted April 2012 Version. https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/CEQA%20Handbook%202023_Final.pdf (accessed December 2024).
- San Luis Obispo, County of. 2024. Active Planning Projects. <https://www.slocounty.ca.gov/Departments/Planning-Building/Grid-Items/Community-Engagement/Active-Planning-Projects.aspx> (accessed December 2024).

List of Preparers

This Addendum was prepared by Rincon Consultants, Inc. under contract to HRCSD. Persons involved in data gathering, analysis, project management, and quality control are listed below.

Heritage Ranch Community Service District (Lead Agency)

Scott B. Duffield, P.E., General Manager

Rincon Consultants, Inc.

Jennifer Haddow, PhD, Principal Environmental Scientist
 Annaliese Torres, Senior Environmental Planner
 Leslie Slayday, MUP, Environmental Planner

Appendix A

Biological Resources Assessment



Heritage Ranch Water Resource Recovery Facility Project

REVISED Biological Evaluation/Biological Resources Assessment

prepared for

Heritage Ranch Community Services District
4870 Heritage Road
Paso Robles, California 93446
Contact: Scott Duffield, P.E., General Manager

prepared by

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

December 2024

Table of Contents

1	Introduction	1
1.1	Project Location	1
1.2	Action Area and Study Area	1
1.3	Purpose and Need of the Proposed Action.....	4
1.4	Proposed Action.....	4
1.5	Regulatory Summary.....	6
1.5.1	Definition of Special Status Species.....	6
1.5.2	Environmental Statutes	6
1.5.3	Guidelines for Determining CEQA Significance	7
2	Methodology	8
2.1	Literature Review	8
2.2	Field Reconnaissance Surveys.....	8
3	Existing Environment	10
3.1	Physical Characteristics.....	10
3.1.1	Watersheds and Drainages.....	10
3.1.2	Soils.....	10
3.2	Vegetation Communities and Other Land Cover Types.....	11
3.2.1	Ruderal.....	11
3.2.2	Developed.....	11
3.3	General Wildlife	11
4	Regulated Biological Resources	13
4.1	Special Status Species	13
4.1.1	Special Status Plant Species.....	13
4.1.2	Special Status Wildlife Species.....	13
4.2	Sensitive Natural Communities and Critical Habitat.....	14
4.3	Jurisdictional Waters and Wetlands	14
4.4	Wildlife Movement	14
4.5	Resources Protected by Local Policies and Ordinances.....	15
4.6	Habitat Conservation Plans.....	15
5	Impact Analysis and Mitigation Measures.....	16
5.1	Special Status Species Impacts.....	16
5.1.1	Special Status Plants Impacts	16
5.1.2	Special Status Wildlife Impacts.....	16
5.1.3	Effects Determination for Federally Listed Species.....	17
5.2	Sensitive Natural Communities and Critical Habitat Impacts	17
5.2.1	Riparian Habitat and Sensitive Natural Communities	17

5.2.2	Effects Determination for Critical Habitat	17
5.3	Jurisdictional Waters and Wetlands Impacts.....	18
5.4	Wildlife Movement Impacts.....	18
5.5	Impacts to Resources Protected by Local Policies and Ordinances	18
5.6	Habitat Conservation Plan Impacts.....	18
6	Limitations, Assumptions, and Use Reliance	20
7	References	21
8	List of Preparers	22

Figures

Figure 1	Regional Location.....	2
Figure 2	Study Area and Action Area	3
Figure 3	Vegetation Communities and Cover Types within Study Area/Action Area.....	12

Appendices

Appendix A	Regulatory Setting
Appendix B	U.S. Fish and Wildlife Official Information for Planning and Consultation Species List
Appendix C	Special Status Species Evaluation Tables
Appendix D	Floral and Faunal Compendium
Appendix E	Site Photographs

1 Introduction

Rincon Consultants, Inc. (Rincon) has prepared this updated Biological Evaluation/Biological Resources Assessment for the Heritage Ranch Water Resource Recovery Facility (WRRF) Project (herein referred to as “proposed action” or “project”), which includes upgrades to the existing Heritage Ranch Community Services District (HRCSD) wastewater treatment plant to bring the existing system into compliance with water quality standards and provide capacity to service existing and planned growth within the HRCSD service area. This study has been completed in accordance with the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and the federal Endangered Species Act (ESA).

1.1 Project Location

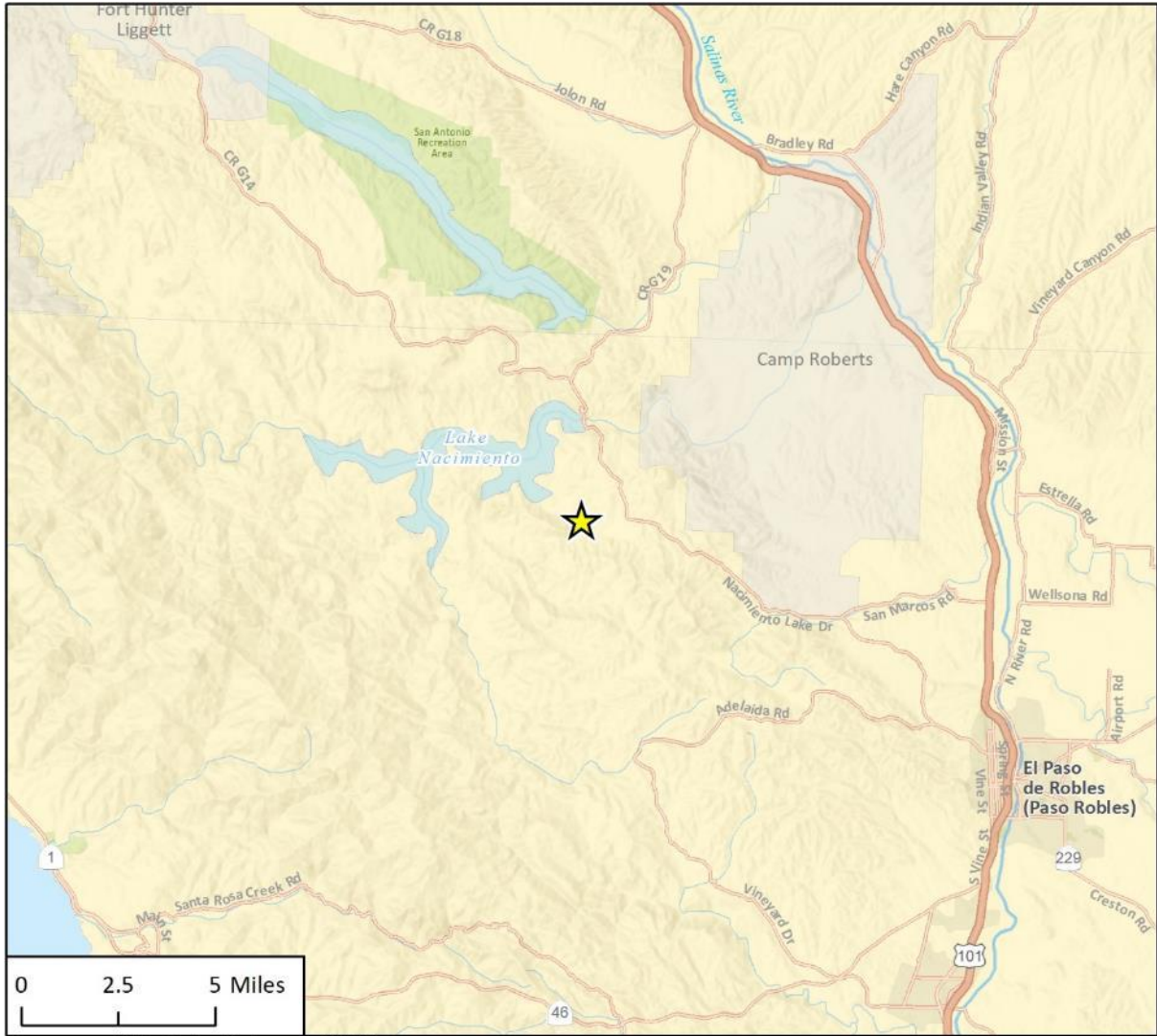
The project site is located near Lake Nacimiento, approximately 10 miles east of the city of Paso Robles in unincorporated San Luis Obispo County. The 6.8-acre project site occurs within the existing HRCSD wastewater treatment plant property at 4870 Heritage Road (Assessor’s Parcel Number 012-181-085). It is within the *Lime Mountain, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle. The Public Land Survey System depicts the project site within Township 25S, Range 10E, Section 27, Mt. Diablo Meridian. See Figure 1 for a map of the regional project location and Figure 2 for a map of the project site in a local context.

1.2 Action Area and Study Area

The Action Area is the geographic area encompassing all the physical, chemical, and biological changes that will occur directly or indirectly from the proposed action. The proposed action includes a number of different components to be constructed/installed within an approximately 6.8-acre area within the existing HRCSD wastewater treatment plant property. Access points, staging areas, and areas of permanent and temporary disturbance required to fulfill the purpose and need of the proposed action are located within the boundaries of this property (Figure 2).

The biological study area, hereinafter referred to as the “Study Area,” is synonymous with the Action Area. The Study Area is used in this analysis to inform the existing baseline conditions, ecological context within the Action Area, as well as assisting in informing the potential for the Action Area to support federally listed species.

Figure 1 Regional Location



Basemap provided by Esri and its licensors © 2022.

★ Study Area/Action Area



RI07g 1 Regional Location

Figure 2 Study Area and Action Area¹



¹ The project site excludes the existing HRCSD solar array (located in the middle of the project site), which would not be impacted by the proposed project.

1.3 Purpose and Need of the Proposed Action

HRCSD received a Waste Discharge Requirements (WDR) from the Central Coast Regional Water Quality Control Board (RWQCB) in September 2017 (Waste Discharge Order No. R3-2017 0026). HRCSD was unable to meet the standards in the WDR for copper, nitrate, and un-ionized ammonia. As a result, HRCSD received a Time Schedule Order from the RWQCB in May 2018 (R3-2018-0011), which granted HRCSD five years to make necessary process improvements to achieve compliance with its WDR. HRCSD spent the next few years making process adjustments but remained unable to achieve compliance. In April 2021, a preliminary engineering memorandum determined the existing treatment ponds lacked capacity to treat wastewater to meet discharge requirements. In light of these results, HRCSD determined replacement of its existing treatment process was necessary and requested an additional Time Schedule Order from the Central Coast RWQCB. The updated Time Schedule Order (TSO R3-2022-0046) went into effect on October 14, 2022 and is the final time extension available to HRCSD, which grants it five years to complete construction and commissioning of new treatment processes.

1.4 Proposed Action

The proposed action primarily consists of installation of a new packaged MBR wastewater treatment plant in the southeastern portion of the project site on a new concrete pad. The MBR would include a dual-fine screen with washer compactor, anoxic/aerobic basin trains, and membrane filtration units. An MBR is an activated sludge-based treatment system that also incorporates membrane filtration for solids separation in lieu of a secondary clarifier. The membranes can handle higher solids flux rates than conventional secondary clarification can, thus reducing the footprint for the system. The membranes also provide tertiary filtration without requiring a separate tertiary filtration process. The MBR would also have new influent equalization incorporated into the process.

The proposed action also involves the following improvements to the existing HRCSD wastewater treatment plant to accommodate the new MBR system:

- Modification of the three influent sanitary sewer force mains to be able to pump to either a new influent pump station or directly to Emergency Storage (Aeration Pond 1). Plug valves would be added, and existing sanitary sewer force mains would be extended to the MBR. Sewer force mains would extend from the southwestern edge of the project site to the MBR
- Installation of a new influent pump station adjacent to the MBR to receive flow from the collection system's lift stations
- Installation of a dewatering sludge storage tank and dewatering press adjacent to the MBR
- Installation of a new, 25,000-gallon effluent storage tank and effluent pump station with vertical turbine pumps
- Installation of a new chlorine dosing system
- Installation of a new diesel back-up generator on a concrete pad adjacent to the MBR
- Completion of various on-site yard piping upgrades to provide new bypass connections and drainage
- Completion of electrical upgrades, including a new power service connection and remote Supervisory Control and Data Acquisition (SCADA) system

- Repurposing of Aeration Pond 1 for emergency storage with a pond drain returning to the influent pump station and a self-priming influent pump station capable of pumping out of Pond 1 to the influent pump station
- Decommissioning of Aeration Pond 2 and filling/removing interconnecting piping between Aeration Ponds 1 and 2. Aeration Pond 2 would only be used as a backup emergency storage pond should Aeration Pond 1 be filled

The proposed action would produce tertiary treated effluent and would have an average annual daily flow capacity of approximately 0.24 million gallons per day.

Construction

Construction of the proposed action would occur over approximately 18 months and is anticipated to commence as early as April 2025 and conclude in April 2027. The proposed action would be required to be operational and in compliance with effluent limitations by September 30, 2027.

Construction activities would typically occur Monday through Friday from 8:00 a.m. to 5:00 p.m. and would consist of demolition, site preparation, minor grading, and infrastructure installation. In addition, some vegetation removal would be required to accommodate the proposed WRRF. On-site utilities such as electrical, sewer, and water lines would likely be demolished or relocated within the project site. Approximately 7,000 cubic yards of soil would be excavated and used on site as fill material. In addition, minor quantities of soil material would be exported, and minor quantities of fill material would be imported for surfacing and subgrade preparation.

Operation and Maintenance

The WRRF would operate 24 hours per day, 365 days per year. Maintenance staff would visit the WRRF daily (similar to existing conditions), and approximately four to five additional vehicles would visit the Study Area each month for purposes such as chemical deliveries. The existing solar array at the HRCSD wastewater treatment plant would be utilized to supply approximately 300,000 kWh per year of the WRRF's total electricity demand with renewable energy. The backup generator would be tested upon initial start-up and on a monthly basis thereafter with each testing event lasting for approximately two to four hours.

The WRRF would include exterior lighting, which would consist of constant nighttime access lighting for roadways within the WRRF as well as motion-activated and manual lighting around each treatment process area, which are expected to be used once per week. All lighting on site would be dark sky-rated fixtures/types.

Alkalinity chemicals such as sodium hydroxide or magnesium hydroxide would be stored in two identical double-walled tanks at the WRRF and delivered to the aeration basins through a pump system. Citric acid, sodium hypochlorite, sodium hydroxide, or similar cleaning chemicals would be used intermittently to perform preventive maintenance cleanings on the MBR units by removing organic and inorganic matter. These chemicals would similarly be stored in a chemical drum or a double-walled plastic tote when not in use. Similar to existing conditions, the proposed disinfection process would require use of sodium hypochlorite for chlorine disinfection. Sodium hypochlorite would be stored outdoors under a shade structure in double-walled plastic tanks at the WRRF. Risks associated with handling these chemicals would be managed by using secondary containment structures at chemical storage locations, providing adequate access and egress space for chemical

delivery trucks, developing hazardous material business response plans, and installing eye-wash and shower stations at each chemical storage and feed location, as appropriate.

1.5 Regulatory Summary

Regulated or sensitive resources analyzed included special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, regionally protected resources (e.g., from Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the County of San Luis Obispo).

1.5.1 Definition of Special Status Species

For the purposes of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); including proposed and candidate species
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- Native Plant Protection Act (NPPA) – State Rare
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B
- Species designated as sensitive by the United States Forest Service or United States Bureau of Land Management, if the project would affect lands administered by these agencies
- Species designated as locally important by the local agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs

1.5.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (see Appendix A for more detail):

- California Environmental Quality Act National Environmental Policy Act
- Federal Endangered Species Act
- California Endangered Species Act
- Federal Clean Water Act (CWA)
- California Fish and Game Code
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act

1.5.3 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed action would have a significant effect on biological resources if it would:

- a) Have substantial adverse effects, 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 United States Fish and Wildlife Service (USFWS).
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and 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. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2 Methodology

2.1 Literature Review

Rincon conducted a literature review to characterize the nature and extent of biological resources on and adjacent to the Study Area. The literature review included an evaluation of current and historical aerial photographs of the site (Google Earth), as well as regional and site-specific topographic maps.

Queries of the USFWS Information for Planning and Consultation system (USFWS 2024a and Appendix B), CDFW California Natural Diversity Database (CNDDDB; CDFW 2024a), and CNPS online Inventory of Rare and Endangered Plants of California (CNPS 2024) were conducted to obtain comprehensive information regarding state and federally listed species, and other special status species, considered to have potential to occur within the *Lime Mountain, California* USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Bryson, Tierra Redonda Mountain, Bradley, Adelaida, York Mountain, Cypress Mountain, Cambria, and Pebblestone Shut-in*). The results of database queries and lists of special status species were reviewed by Rincon's regional biological experts for accuracy and completeness. The final list of special status biological resources (species and sensitive natural communities) was evaluated based on documented occurrences within the nine-quadrangle search area and biologists' expert opinions on species known to occur in the region. The evaluation results and justification were compiled into tables (Appendix C).

The following resources were reviewed for additional information relating to biological resources within the Action Area:

- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (2024a)
- USFWS Critical Habitat Portal (2024b)
- CDFW Biogeographic Information and Observation System (CDFW 2024b)
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2024c)
- CDFW Special Animals List (CDFW 2024d)

The potential for wildlife movement corridors was evaluated based on the California Essential Habitat Connectivity Project commissioned by the California Department of Transportation and CDFW (Spencer et al. 2010).

2.2 Field Reconnaissance Surveys

Field reconnaissance surveys were conducted to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources, including special status plant and animal species, sensitive plant communities, and potentially jurisdictional waters and wetlands within the Study Area. A field reconnaissance survey was conducted by Rincon Senior Biologist Michael Tom on October 6, 2022. Mr. Tom surveyed the Study Area and Action Area associated with the WRRF on foot and recorded biological resources encountered on site. An additional site visit was completed by Catherine Johnson on November 22, 2024 to document existing conditions of the Study Area.

During the surveys, an inventory of plant and animal species observed was compiled (Appendix D) and special status species, if observed during the surveys, were mapped. Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). All plant species encountered were noted and identified to the lowest possible taxonomic level. The vegetation classification system used for this analysis is based on *A Manual of California Vegetation, Second Edition (MCV2; Sawyer et al. 2009)* with modifications as needed to accurately describe the existing habitats observed on site.

Wildlife identification and nomenclature followed standard reference texts including *Field Guide to Birds of Western North America* (Sibley 2016), *Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), and *Mammals of North America* (Bowers et al. 2004). The habitat requirements for each regionally occurring special status species were assessed and compared to the type and quality of the habitats observed within the Study Area during the field surveys. Several sensitive species were eliminated from consideration for potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or known regional distribution.

3 Existing Environment

This section summarizes the results of the literature review and reconnaissance-level field surveys. Discussions regarding the general environmental setting, vegetation communities present, plants and animals observed, potential special status species issues, and other possible constraints regarding the biological resources on site are presented below. Representative photographs of the Action Area are provided in Appendix E. A complete list of all plant and animal species observed on site during the field surveys is presented as Appendix D.

3.1 Physical Characteristics

The Action Area is located in northern San Luis Obispo County, where the climate is moderate and typifies a Mediterranean coastal climate throughout the year. The Action Area is within the South Coast Ranges geographic subregion of California. Within this subregion, the site occurs within the Outer South Coast Range district. The South Coast Ranges subregion is a component of the larger Central Western California geographic region, which occurs within the even larger California Floristic Province (Baldwin et al. 2012). Topography of the Action Area consists of disturbed grassland areas and existing wastewater treatment facilities, surrounded by gently rolling hills consisting of oak woodlands and grasslands mixed with residential homesites.

3.1.1 Watersheds and Drainages

The Action Area is located within the Nacimiento Reservoir-Nacimiento River and Nacimiento River watersheds (Hydrologic Unit Code 180600050610 and 180600050611, respectively). No wetlands or drainages are mapped within the Action Area by the National Wetlands Inventory (USFWS 2024c) or National Hydrography Dataset (USGS 2024). The two existing plastic-lined wastewater treatment ponds in this area are depicted as freshwater ponds by the National Wetlands Inventory, but no naturally occurring freshwater ponds were observed within the Action Area during the October 6, 2022 or November 22, 2024 reconnaissance surveys.

3.1.2 Soils

The Natural Resources Conservation Service Web Soil Survey delineates two soil map units within the Action Area: Dibble clay loam, 3 to 26 percent slopes, MLRA 15 and Ryer clay loam, 2 to 9 percent slopes. These soil map units are not designated as hydric soils in the National Hydric Soils List (USDA NRCS 2024b). Site-specific soil observations are consistent with those mapped by the NRCS Web Soil Survey (USDA NRCS 2024a). Descriptions of each soil map unit are presented below.

- **Dibble clay loam, 3 to 26 percent slopes, MLRA 15** is a well-drained soil that is formed in residuum weathered from sandstone and shale. A typical soil profile has clay loam, clay, and bedrock to at least 44 inches.
- **Ryer clay loam, 2 to 9 percent slopes**, are well drained soils on foot slopes. They are formed from alluvium derived from mixed rocks. A typical soil profile has clay loam and clay to at least 60 inches.

3.2 Vegetation Communities and Other Land Cover Types

Two vegetation communities or land cover types occur within the Action Area: ruderal, and developed (Figure 3). Vegetation was classified during reconnaissance surveys to characterize the Action Area and is described in more detail below.

3.2.1 Ruderal

The ruderal vegetation community type within the Action Area is characterized by areas that are regularly disturbed by human activities. Given that this community type is not naturally occurring, it is also not described in the Sawyer et al. (2009) classification system. Generally, ruderal vegetation composition and structure can vary depending upon the degree of disturbance or development but is usually dominated by non-native plant species. Within the Action Area, ruderal vegetation was observed in all terrestrial areas not already completely developed (Figure 3). As observed on October 6, 2022, one dominant plant species was observed within this vegetation community in the Action Area, red-stemmed filaree (*Erodium cicutarium*). Other plant species observed in low abundance included common wild oat (*Avena fatua*) and vinegar weed (*Lessingia glandulifera*). During the November 22, 2024 field visit, the ruderal vegetation was dominated by vinegar weed.

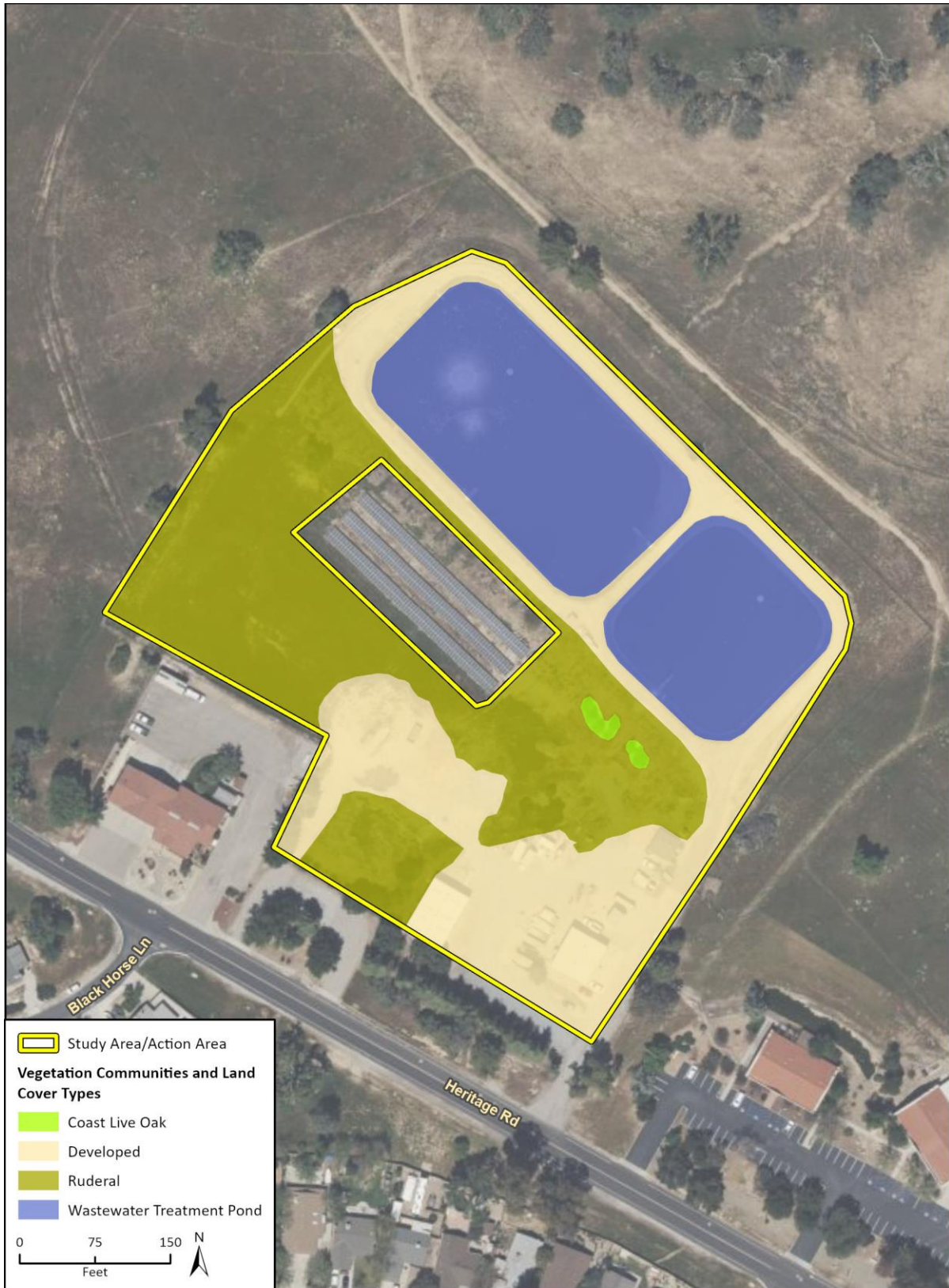
3.2.2 Developed

Developed areas in the Action Area include constructed roads, buildings, and associated landscaping (Figure 3). Given that this land cover type is not naturally occurring, it is also not described in the Sawyer et al. (2009) classification system.

3.3 General Wildlife

Wildlife activity was generally low during the reconnaissance surveys, and the quality of habitat for wildlife is limited since the entirety of the Action Area is developed or disturbed by existing facility operations within the Action Area. A list of wildlife observed during surveys is provided as Appendix D. Generally, the majority of native wildlife species expected to occur are those that are adapted to or can tolerate anthropogenic disturbances and/or anthropogenic environments. California ground squirrels (*Otospermophilus beecheyi*) and associated burrows were observed throughout the Action Area. Additionally, evidence (i.e., scat and tracks) of mule deer (*Odocoileus hemionus*) were observed.

Figure 3 Vegetation Communities and Cover Types within Study Area/Action Area



4 Regulated Biological Resources

This section discusses special status species and other regulated biological resources observed within the Action Area and evaluates the potential for the Action Area to support additional sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB and other sources, species occurrence records from other sites in the vicinity of the Action Area, previous reports for the Action Area, and the results of surveys of the Action Area. The potential for each special status species to occur in the Action Area was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the Action Area is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable within the Action Area if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Action Area is unsuitable or of very poor quality. The species is not likely to be found within the Action Area. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Action Area is unsuitable. The species has a moderate probability of being found within the Action Area.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat on or adjacent to the Action Area is highly suitable. The species has a high probability of being found within the Action Area.
- **Present.** Species is observed within the Action Area or has been recorded (e.g., CNDDDB, other reports) within the Action Area recently (within the last five years).

4.1 Special Status Species

4.1.1 Special Status Plant Species

Based on the database and literature reviews, 81 special status plant species are known to or have the potential to occur within the regional vicinity of the Study Area (Appendix C). However, land cover in the Action Area is comprised entirely of fully developed areas and disturbed areas consisting of ruderal vegetation. Due to the existing site conditions in the Action Area, no special status plant species have potential to occur within the Action Area based on lack of suitable available habitat.

4.1.2 Special Status Wildlife Species

Based on the database and literature reviews, 38 special status wildlife species are known to or have the potential to occur in the regional vicinity of the Study Area (Appendix C). Of those, one special

status animal species, American badger (*Taxidea taxus*), was determined to have moderate potential to occur within the Study Area.

American Badger

American badger is a CDFW Species of Special Concern. This species utilizes a wide variety of scrub, forest, and grassland habitats with friable soils. The upland areas surrounding the Action Area provide potentially suitable habitat for this species. Sign of a suitable prey base for American badger in the form of California ground squirrels and other burrowing small mammals was observed during the reconnaissance-level surveys. Areas suitable for den construction could include undeveloped areas surrounding the Action Area, and the species could traverse developed portions of the Action Area. No American badgers or their sign were detected within the Action Area during the reconnaissance-level surveys; however, due to their large home range size and suitable habitat in the surrounding area, badger may have a moderate potential for occurrence as it traverses through the landscape to forage. Therefore, the species may have a moderate potential for occurrence.

Nesting Birds

Native vegetation, namely the various trees adjacent to the Action Area, as well as existing human-made structures within the Action Area, may provide suitable nesting habitat for migratory bird species, which are protected by the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513.

4.2 Sensitive Natural Communities and Critical Habitat

Vegetation types within the Action Area were compared to the List of Vegetation Alliances and Associations instead of the Sensitive Natural Communities List in the CNDDDB due to outdated information (CDFW 2024e). According to the CDFW Vegetation Program, Alliances with state ranks of S1 through S3 are considered to be imperiled, and thus, potentially of special concern. No vegetation communities with rank S1 through S3 or otherwise designated as high priority or potentially rare in the hierarchical list are present in the Action Area. In addition, the Action Area is not located within federally designated critical habitat (USFWS 2024b).

4.3 Jurisdictional Waters and Wetlands

There are no jurisdictional waters or wetlands within the Action Area.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary

inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, although dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending on the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Wildlife movement corridors can be both large and small scale. Regionally, the Action Area is not located within an Essential Connectivity Area (ECA) as mapped in the report California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (Spencer et al. 2010). ECAs represent principal connections between Natural Landscape Blocks and constitute regions in which land conservation and management actions should be prioritized to maintain and enhance ecological connectivity. ECAs are mapped based on coarse ecological condition indicators rather than the needs of species and thus serve the majority of species in each region.

The Action Area is also largely developed with regular human activities occurring and the property is completely fenced. Therefore, the Action Area does not likely contribute significantly as an important corridor for regional movement compared to the surrounding undeveloped habitats.

4.5 Resources Protected by Local Policies and Ordinances

No local policies or ordinances protecting biological resources pertain to the Action Area; therefore, no resources protected by local policies or ordinances are present within the Action Area.

4.6 Habitat Conservation Plans

The Action Area is not located in an area subject to an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plans.

5 Impact Analysis and Mitigation Measures

5.1 Special Status Species Impacts

The proposed action would have a significant effect on biological resources if it 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.*

5.1.1 Special Status Plants Impacts

As described in Section 4.1.1, *Special Status Plant Species*, due to a lack of suitable habitat within the developed and disturbed Action Area, no special status plant species have potential to occur within the Action Area. Therefore, the proposed action would not have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. No impacts would occur.

5.1.2 Special Status Wildlife Impacts

As described in Section 4.1.2, *Special Status Wildlife Species*, one special status wildlife species, American badger, has a moderate potential to occur within the Action Area. No direct impacts to suitable habitat for special status wildlife would occur from implementation of the proposed action because all impacts would occur within developed or ruderal areas.

American Badger

No burrows, tracks, scat, or other evidence was documented in the Action Area; however, the species has a moderate potential to occur temporarily while foraging. No suitable denning/nesting habitat is available on-site due to the high level of disturbance associated with the existing operations of the wastewater treatment facilities. Areas suitable for den construction could include undeveloped areas surrounding the Action Area, and the species could traverse developed portions of the Action Area. Considering the lack of American badger sign and the small number of individuals that could occupy ruderal areas of the site as compared to the larger regional population, impacts to American badger would be less than significant.

Nesting Birds

Impacts to common bird species may occur if active nests are present in the ruderal vegetation within the Action Area, some portions of which are proposed for removal, as well as trees adjacent to this area during construction activities. Therefore, impacts to nesting birds would be potentially significant; and implementation of the avoidance and minimization measures outlined in measure BIO-1 are recommended to reduce impacts to a less-than-significant level.

Recommended Avoidance and Minimization Measures

The following measures are recommended to reduce impacts to special status species to less-than-significant levels.

BIO-1 Avoidance and Minimization Measures for Nesting Birds

Initial site disturbance in the Action Area shall occur outside the general avian nesting season (February 1 through August 31), if feasible. If avoidance of the nesting season for initial disturbance is not feasible, a qualified biologist proficient in identification of avian species, nesting behaviors, and nest monitoring shall conduct a preconstruction nesting bird survey to determine the presence/absence, location, and status of any active nests on or adjacent to the Action Area. The extent of the survey buffer area surrounding the Action Area shall be established by the qualified biologist to ensure direct and indirect effects to nesting birds are avoided. Buffer size shall consider the species involved and relevant level of tolerance to adjacent activity, the location of the nest relative to proposed activities, and site conditions that naturally buffer the location, such as vegetation screening and topography. Nesting bird surveys shall be performed no more than 14 days prior to initial site disturbance. In the event active nests are discovered, a suitable buffer shall be established around such active nests and no construction within the buffer shall be allowed until the qualified biologist has determined the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No project activities shall occur within this buffer until the qualified biologist has confirmed breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for initial site disturbance occurring between September 1 and January 31.

5.1.3 Effects Determination for Federally Listed Species

The proposed action would have no effect to federally listed species because no federally listed species are expected to occur in the Action Area.

5.2 Sensitive Natural Communities and Critical Habitat Impacts

The proposed action would have a significant effect on biological resources if it would:

- b) *Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.*

5.2.1 Riparian Habitat and Sensitive Natural Communities

As discussed in Section 4.2, *Sensitive Natural Communities and Critical Habitat*, the Action Area does not contain sensitive natural communities or critical habitat. In addition, the purpose of the proposed action is to upgrade the HRCSD's existing wastewater treatment process and improve the water quality of wastewater discharge at the existing HRCSD outfall such that it complies with Waste Discharge Order No. R3-2017-0026. As a result, the change in water quality discharged would not result in adverse impacts to any associated riparian habitat. Therefore, the proposed action would not have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS, therefore no impact would occur.

5.2.2 Effects Determination for Critical Habitat

The proposed action does not occur within critical habitat and thus would have **no effect** to federally designated critical habitat.

5.3 Jurisdictional Waters and Wetlands Impacts

The proposed action would have a significant effect on biological resources if it would:

- 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.*

No potentially jurisdictional waters or wetlands are located within the Action Area. Furthermore, the purpose of proposed action is to upgrade HRCSD's existing wastewater treatment process such that the water quality of wastewater discharge at the existing HRCSD outfall complies with Waste Discharge Order No. R3-2017-0026 such that no adverse impacts to water quality would occur. Therefore, no impacts to potentially jurisdictional waters and wetlands would occur.

5.4 Wildlife Movement Impacts

The proposed action would have a significant effect on biological resources if it would:

- d) *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of wildlife nursery sites.*

The Action Area is not located within an ECA (Spencer et al. 2010). No wildlife nursery sites are located within the Action Area. Implementation of the proposed action would occur within the existing HRCSD wastewater treatment plant and would not disturb or remove native vegetation communities. In addition, no components of the proposed action would create new barriers to movement. Therefore, the proposed action would not interfere substantially with the local or regional movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of wildlife nursery sites, and no impacts to wildlife movement or nursery sites as compared to existing conditions.

5.5 Impacts to Resources Protected by Local Policies and Ordinances

The proposed action would have a significant effect on biological resources if it would:

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*

The proposed action would not conflict with local policies or ordinances protecting biological resources because the Action Area is not subject to any such local policies or ordinances, as described in Section 4.5, *Resources Protected by Local Policies and Ordinances*. Therefore, no impact would occur.

5.6 Habitat Conservation Plan Impacts

The proposed action would have a significant effect on biological resources if it would:

- f) *Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.*

The proposed action would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan because the Action Area is not subject to any such plans. Therefore, no impact would occur.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or portion of the season when positive identification would be expected if present and therefore cannot be considered definitive. The biological surveys are also limited by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regards to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7 References

- Baldwin, B.G. (Ed.), D.H. Goldman (Ed.), D. J. Keil (Ed.), R. Patterson (Ed.), T. J. Rosatti (Ed.), D. H. Wilken (Ed.). 2012. *The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded*. University of California Press. Berkeley, California.
- Bowers, N., R. Bowers, & K. Kaufman. 2004. *Mammals of North America*.
- California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database, Rarefind V.
- _____. 2024b. Biogeographic Information and Observation System (BIOS).
- _____. 2024c. Special Vascular Plants, Bryophytes, and Lichens List. Biogeographic Data Branch, California Natural Diversity Database.
- _____. 2024d. Special Animals List. Biogeographic Data Branch, California Natural Diversity Database.
- _____. 2024e. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, Sacramento, CA.
- California Native Plant Society. 2024. *Inventory of Rare and Endangered Plants*. (online edition, v9-01 1.5). <https://www.rareplants.cnps.org> (accessed November 2024).
- Sawyer, J. O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society, Sacramento, California.
- Sibley. 2016. *Sibley Birds West: Field Guide to Birds of Western North America*. Knopf; second edition.
- Spencer, W. D., et al. 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.
- Stebbins, R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*. 2nd ed. Houghton-Mifflin Company. Boston, Massachusetts.
- United States Department of Agriculture Natural Resources Conservation Service. 2024a. Web Soil Survey. Soil Survey Area: San Luis Obispo County, California. <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> (accessed November 2024).
- _____. 2024b. Lists of Hydric Soils. <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/> (accessed November 2024).
- United State Fish and Wildlife Service (USFWS). 2024a. Information for Planning and Consultation online project planning tool. <https://ecos.fws.gov/ipac/> (accessed November 2024).
- _____. 2024b. Critical Habitat Portal. <https://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed November 2024).
- _____. 2024c. National Wetland Inventory. <https://www.fws.gov/wetlands/data/mapper.html> (accessed November 2024).
- United States Geological Survey (USGS). 2024. The National Map Viewer. <https://viewer.nationalmap.gov/advanced-viewer/> (accessed November 2024).

8 List of Preparers

Rincon Consultants, Inc.

Primary Authors and Field Reconnaissance Surveys

- Adam Card, Biologist
- Michael Tom, Senior Supervisory Biologist
- Adam Sachs, Biologist

Technical Review

- Colby J. Boggs, Principal/Senior Ecologist
- Michaela Robbins, Senior Biologist
- Thea Benson, Senior Biologist/Project Manager
- Alex Hunt, Director

Graphics

- Allysen Valencia, GIS Analyst
- Bryan Valladares, GIS Analyst

Appendix A

Regulatory Setting

Regulatory Setting

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the Action Area include the following:

- United States Army Corps of Engineers (USACE; wetlands and other waters of the United States)
- United States Fish and Wildlife Service (USFWS; federally listed species and migratory birds)
- National Marine Fisheries Service (NMFS; marine wildlife and anadromous fishes)
- Central Coast Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (CDFW; riparian areas, streambeds, and lakes; state-listed species; nesting birds; marine resources)

United States Army Corps of Engineers Jurisdiction

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 Code of Federal Regulations (CFR) Part 328.3 to include navigable, tidal, and interstate waters and certain impoundments, tributaries, and wetlands. The agencies' most recent regulatory definition of the term was promulgated in January 2023, following failed attempts in prior years that had been frustrated by legal challenges. However, in May 2023, the U.S. Supreme Court issued its ruling in *Sackett v. Environmental Protection Agency*, which invalidated portions of the updated regulations. To address this ruling, in September 2023 the agencies issued a "conforming rule" (88 Federal Register 61964-61969), modifying their definition of "waters of the United States" to comport with the Court's ruling. This definition is described in detail below.

Waters of the U.S.

Current USACE and United States Environmental Protection Agency (USEPA) regulations, reflecting the January 2023 definition as modified by the September 2023 Conforming Rule, define "waters of the United States" as follows (33 CFR 328.3; see also 88 Federal Register 61964-61969):

(1) Waters which are:

- (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

- (ii) The territorial seas; or
- (iii) Interstate waters;
- (2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
- (3) Tributaries of waters identified in paragraph (1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
- (4) Wetlands adjacent to the following waters:
 - (i) Waters identified in paragraph (1) of this section; or
 - (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph 2 or 3 of this section and with a continuous surface connection to those waters;
- (5) Intrastate lakes and ponds, not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing, or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3) of this section.

The definition specifies the following features are not “waters of the United States” even where they otherwise meet the terms of provisions (2) through (5) above:

- (1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
- (2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with USEPA;
- (3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
- (4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
- (5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
- (6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
- (7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
- (8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3[c][1]). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4[c]). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 Federal Register 41217).

Wetlands

USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[c][1]). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than 50 percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USFWS' list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5 percent vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron),

gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court Decision

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally-regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA has jurisdiction over navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett v. USEPA* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies' current regulations through the September 2023 Conforming Rule.

The Court decided:

- "Adjacent wetlands" are waters of the United States only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells." The agencies addressed this element by defining the term "adjacent" to mean "having a continuous surface connection" in the Conforming Rule.
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the CWA and should not be used. The Court determined the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.
- Although jurisdiction over tributaries was not addressed by the Court, the decision stated "...the [CWA's] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes." The Conforming Rule makes clear that only relatively permanent tributaries qualify as "waters of the United States."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from USACE for the construction of any structure in or over any navigable water of the United States. Structures or work

outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. Section 10 applies only to navigable waters and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code Section 13050[e]). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs as well as by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. USACE will then determine a “reasonable period of time” for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, USACE may determine Certification has been waived and issue the requested permit. If a Section 401 Certification is issued, it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code Section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason

- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint-source-related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state they are to be used in issuing CWA Section 401 Certifications and WDRs and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases, the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance, each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

- (i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
- (ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
- (iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states waters of the United States and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The USFWS implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and NMFS share responsibility for implementing the ESA. Generally, the USFWS implements the ESA for terrestrial and freshwater species, while the NMFS implements the ESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.

3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires USFWS to publish a list of all non-native, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

“Disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously-used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The CDFW derives its authority from the California Fish and Game Code (CFGC) and administers several state laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (CFGC Section 2050 et. seq.) prohibits take of state listed threatened or endangered species. Take under CESA is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (CFGC Section 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA’s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (CFGF Section 1900 et seq.). The NPPA requires CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 California Code of Regulations 786.9) under the authority of the NPPA, establishing that CESA's permitting procedures would be applied to plants listed under the NPPA as "rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

CDFW enforces CFGF Sections 3511, 4700, 5050, and 5515, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan is in place that authorizes take of the fully protected species.

Avian Protection Laws

CFGF Sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. CFGF Section 3503.5 protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. CFGF Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

CFGF Section 1602 states it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying CDFW of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain a Streambed Alteration Agreement (SAA) from CDFW, which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of CFGF Section 1602** establishes the following general concepts:
 - References "river," "stream," and "lake"
 - References "natural flow"
 - References "bed," "bank," and "channel"

Heritage Ranch Water Resource Recovery Facility Project

- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987)), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
 - Have a source and a terminus
 - Have banks and a channel
 - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
 - Represent the depression between the banks worn by the regular and usual flow of the water
 - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
 - Include the land that is covered by the water in its ordinary low stage
 - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 California Code of Regulations 1.72) and streambed alterations associated with cannabis production (14 California Code of Regulations 722[c][21]), which indicate that a stream:
 - Flows at least periodically or intermittently
 - Flows through a bed or channel having banks
 - Supports fish or aquatic life
 - Can be dry for a period of time
 - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, including A Field Guide to Lake and Streambed Alteration Agreements (California Department of Fish and Game 1994) and Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants (Brady and Vyverberg 2013), which suggest the following:
 - A stream may flow perennially or episodically
 - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
 - Width of a stream course can reasonably be identified by physical or biological indicators
 - A stream may have one or more channels (single thread vs. compound form)
 - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
 - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
 - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic wildlife including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
 - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Appendix B

U.S. Fish and Wildlife Official Information for Planning and Consultation Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958
Email Address: FW8VenturaSection7@FWS.Gov

In Reply Refer To:

11/21/2024 23:04:04 UTC

Project Code: 2025-0023138

Project Name: Heritage Ranch Water Resource Recovery Facility Re-Design

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

PROJECT SUMMARY

Project Code: 2025-0023138

Project Name: Heritage Ranch Water Resource Recovery Facility Re-Design

Project Type: Wastewater Facility - Maintenance / Modification

Project Description: Background:

The HRCSD received a new Waste Discharge Requirements (WDR) from the Central Coast Regional Water Quality Control Board (CCRWQCB) in September 2017 (Waste Discharge Order No. R3-2017 0026). HRCSD was unable to meet the standards in the WDR for copper, nitrate, and un-ionized ammonia. As a result, HRCSD received a Time Schedule Order from the CCRWQCB in May 2018 (R3-2018-0011), which granted HRCSD five years to make necessary process improvements to achieve compliance with its WDR. HRCSD spent the next few years making process adjustments but remained unable to achieve compliance. In April 2021, a preliminary engineering memorandum determined the existing treatment ponds lacked capacity to treat wastewater to meet discharge requirements. In light of these results, HRCSD determined replacement of its existing treatment process was necessary and requested an additional Time Schedule Order from the Central Coast RWQCB. The updated Time Schedule Order (TSO R3-2022-0046) went into effect on October 14, 2022 and is the final time extension available to HRCSD, which grants it five years to complete construction and commissioning of new treatment processes.

Project Components:

The proposed action would include modification and demolition of the existing HRCSD wastewater treatment plant elements and construction of new WRRF elements with an average annual daily flow capacity of approximately 0.29 million gallons per day. The WRRF would produce tertiary treated effluent, a portion of which may be re-used in on-site processes. In addition to treatment process infrastructure, the WRRF would include supporting facilities necessary to operate, maintain, secure, and preserve the site. These supporting facilities would consist of office space to provide administrative support; a standby power generation enclosure for emergency backup power supply; an electrical building to house electrical and control equipment; and safety and spill prevention structures. A diesel backup generator would be installed for use during power outages and other emergency situations. No disturbance within the adjacent riparian zone would be required to replace the de chlorination facilities. In addition, no modifications to the storage pond located adjacent to the existing spray field would occur, and discharges to the storage pond would remain the same as under existing conditions.

Construction of the proposed action would occur over an approximately

three-year period between approximately June 2024 and August 2027. Construction activities at the wastewater treatment plant would consist of demolition, site preparation, grading, building construction, infrastructure installation, paving, site restoration, and architectural coating. In addition, rock breaking/processing might be required. Rock breaking could occur at the influent splitter box and influent pipelines. Rock breaking would be accomplished by an excavator and rock breakers if hard rock is encountered. The proposed action would require demolition of the existing chlorine chemical storage structure, storage shed, fuel tanks shed, and effluent pump station. In addition, some vegetation and tree removal would be required to accommodate the proposed WRRF, including removal of grasses and several small oaks previously planted by HRCSD staff. On-site utilities such as electrical, sewer, and water lines would likely be demolished or relocated within the Action Area. The maximum depth of excavation would be approximately 15 feet. Approximately 4,000 cubic yards of soil would be excavated and used on site as fill material.

Construction equipment and materials staging along with construction worker parking would occur within the Action Area. Approximately 10 to 25 construction workers would be on site on any given day. Delivery and haul trucks would access the site from Heritage Road, and temporary lane closures may be required when large trucks are entering or exiting the site.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@35.72261495,-120.88467968375198,14z>



Counties: San Luis Obispo County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

BIRDS

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
California Ridgway's Rail <i>Rallus obsoletus obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Southwestern Pond Turtle <i>Actinemys pallida</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> Population: South Coast Distinct Population Segment (South Coast DPS) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5133	Endangered

NAME	STATUS
Western Spadefoot <i>Spea hammondi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
Chorro Creek Bog Thistle <i>Cirsium fontinale</i> var. <i>obispoense</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5991	Endangered
Spreading Navarretia <i>Navarretia fossalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Adam Sachs
Address: 2969 Monterey Street suite D
City: San Luis Obispo
State: CA
Zip: 93401
Email: asachs@rinconconsultants.com
Phone: 8055470900

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Agriculture

Appendix C

Special Status Species Evaluation Tables

Special Status Species in the Regional Vicinity of the Action Area

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
Plants and Lichens				
<i>Abies bracteata</i> bristlecone fir	None/None G2G3/S2S3 1B.3	Perennial evergreen tree. Broad-leaved upland forest, chaparral, lower montane coniferous forest, riparian woodland. Rocky. Elevations: 600-5100ft. (183-1555m.)	None	No suitable soils occur within the Study Area, and no fir trees were observed within the Study Area during the reconnaissance-level survey. This species is not expected to occur.
<i>Agrostis hooveri</i> Hoover's bent grass	None/None G2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland. Sandy (usually). Elevations: 20-2000ft. (6-610m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Amsinckia douglasiana</i> Douglas' fiddleneck	None/None G4/S4 4.2	Annual herb. Cismontane woodland, valley and foothill grassland. Dry. Elevations: 0-6400ft. (0-1950m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Arctostaphylos cruzensis</i> Arroyo de la Cruz manzanita	None/None G1G2/S1S2 1B.2	Perennial evergreen shrub. Broad-leaved upland forest, chaparral, closed-cone coniferous forest, coastal bluff scrub, coastal scrub, valley and foothill grassland. Sandy. Elevations: 195-1015ft. (60-310m.) Blooms Dec-Mar.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Arctostaphylos hooveri</i> Hoover's manzanita	None/None G3/S3 4.3	Perennial evergreen shrub. Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Rocky sites. Elevations: 1575-3395ft. (480-1035m.) Blooms Feb-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	None/None G2/S2 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland. Shale. Elevations: 1150-2790ft. (350-850m.) Blooms Dec-Mar.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Arctostaphylos obispoensis</i> Bishop manzanita	None/None G3/S3 4.3	Perennial evergreen shrub. Chaparral, cismontane woodland, closed-cone coniferous forest. Rocky, serpentinite. Elevations: 490-3295ft. (150-1005m.) Blooms Feb-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Aristocapsa insignis</i> Indian Valley spineflower	None/None G1/S1 1B.2	Annual herb. Cismontane woodland. Sandy substrates. Elevations: 985-1970ft. (300-600m.) Blooms May-Sep.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Aspidotis carlotta-halliae</i> Carlotta Hall's lace fern	None/None G3/S3 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland. Serpentinite (usually). Elevations: 330-4595ft. (100-1400m.) Blooms Jan-Dec.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Astragalus macrodon</i> Salinas milk-vetch	None/None G4/S4 4.3	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Sandstone (sometimes), serpentinite (sometimes), shale (sometimes). Elevations: 820-3115ft. (250-950m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Astragalus nuttallii</i> var. <i>nuttallii</i> ocean bluff milk-vetch	None/None G4T4/S4 4.2	Perennial herb. Coastal bluff scrub, coastal dunes. Elevations: 10-395ft. (3-120m.) Blooms Jan-Nov.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Baccharis plummerae</i> ssp. <i>glabrata</i> San Simeon baccharis	None/None G3T1/S1 1B.2	Perennial deciduous shrub. Coastal scrub. In open shrub-grassland associations. Elevations: 165-1575ft. (50-480m.) Blooms Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calochortus clavatus</i> var. <i>clavatus</i> club-haired mariposa lily	None/None G4T3/S3 4.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Clay, Rocky, serpentinite (usually). Elevations: 100-4265ft. (30-1300m.) Blooms (Mar)May-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calochortus fimbriatus</i> late-flowered mariposa-lily	None/None G3/S3 1B.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland. Serpentinite (sometimes). Elevations: 900-6250ft. (275-1905m.) Blooms Jun-Aug.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calochortus obispoensis</i> San Luis mariposa-lily	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Serpentinite (often). Elevations: 165-2395ft. (50-730m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calochortus simulans</i> La Panza mariposa-lily	None/None G2/S2 1B.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Granitic (often), sandy, serpentinite (sometimes). Elevations: 1065-3775ft. (325-1150m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calycadenia villosa</i> dwarf calycadenia	None/None G3/S3 1B.1	Annual herb. Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Rocky. Elevations: 785-4430ft. (240-1350m.) Blooms May-Oct.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i> Cambria morning-glory	None/None G3T2?/S2? 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Clay (usually). Elevations: 100-1640ft. (30-500m.) Blooms (Mar)Apr-Jun(Jul).	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Camissoniopsis hardhamiae</i> Hardham's evening-primrose	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland. Burned areas (sometimes), carbonate, disturbed areas (sometimes), sandy. Elevations: 460-3100ft. (140-945m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Carex obispoensis</i> San Luis Obispo sedge	None/None G3?/S3? 1B.2	Perennial cespitose herb. Chaparral, closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland. Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. Elevations: 35-2690ft. (10-820m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Castilleja densiflora</i> var. <i>obispoensis</i> San Luis Obispo owl's-clover	None/None G5T2/S2 1B.2	Annual herb (hemiparasitic). Meadows and seeps, valley and foothill grassland. Serpentinite (sometimes). Elevations: 35-1410ft. (10-430m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	None/None G3/S3 1B.2	Annual herb. Pinyon and juniper woodland, valley and foothill grassland. Elevations: 260-5185ft. (80-1580m.) Blooms Feb-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Chorizanthe douglasii</i> Douglas' spineflower	None/None G4/S4 4.3	Annual herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Gravelly (sometimes), sandy (sometimes). Elevations: 180-5250ft. (55-1600m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Chorizanthe palmeri</i> Palmer's spineflower	None/None G4/S4 4.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Rocky, serpentinite. Elevations: 180-3100ft. (55-945m.) Blooms Apr-Aug.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Chorizanthe rectispina</i> straight-awned spineflower	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. Elevations: 280-3395ft. (85-1035m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Cirsium fontinale</i> var. <i>obispoense</i> Chorro Creek bog thistle	FE/SCE G2T2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Drainages, seeps, serpentinite. Elevations: 115-1265ft. (35-385m.) Blooms Feb-Jul(Aug-Sep).	None	No suitable serpentine soils are present within the Study Area. This species is not expected to occur.
<i>Cirsium occidentale</i> var. <i>compactum</i> compact cobwebby thistle	None/None G3G4T2/S2 1B.2	Perennial herb. Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. Elevations: 15-490ft. (5-150m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Clarkia jolonensis</i> Jolon clarkia	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Elevations: 65-2165ft. (20-660m.) Blooms Apr-Jun.	None	This species is not known to occur in San Luis Obispo County.
<i>Collinsia antonina</i> San Antonio collinsia	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland. Shale substrates. Elevations: 920-1200ft. (280-365m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Delphinium gypsophilum</i> ssp. <i>parviflorum</i> small-flowered gypsum- loving larkspur	None/None G4T2T3Q/S2S3 3.2	Perennial herb. Cismontane woodland, valley and foothill grassland. On clayey soil. Elevations: 625-1150ft. (190-350m.) Blooms (Mar)Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i> Eastwood's larkspur	None/None G4T2/S2 1B.2	Perennial herb. Chaparral, valley and foothill grassland. Serpentine. Openings. Elevations: 245-1640ft. (75-500m.) Blooms (Feb)Mar-Apr.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Delphinium umbraculorum</i> umbrella larkspur	None/None G3/S3 1B.3	Perennial herb. Chaparral, cismontane woodland. Mesic sites. Elevations: 1310-5250ft. (400-1600m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Dudleya abramsii</i> ssp. <i>bettinae</i> Betty's dudleya	None/None G4T2/S2 1B.2	Perennial herb. Chaparral, coastal scrub, valley and foothill grassland. On rocky, barren exposures of serpentine within scrub vegetation. Elevations: 65-590ft. (20-180m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	None/None G3T2/S2 1B.1	Perennial herb. Chaparral, coastal bluff scrub, coastal scrub, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. Elevations: 15- 1475ft. (5-450m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Entosthodon kochii</i> Koch's cord moss	None/None G1/S1 1B.3	Moss. Cismontane woodland. Moss growing on soil on riverbanks. Elevations: 590-3280ft. (180-1000m.)	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Eriastrum luteum</i> yellow-flowered eriastrum	None/None G2/S2 1B.2	Annual herb. Broad-leafed upland forest, chaparral, cismontane woodland. On bare sandy decomposed granite slopes. Elevations: 950-3280ft. (290-1000m.) Blooms May-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Erigeron sanctarum</i> saints' daisy	None/None G3/S3 4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub. Elevations: 245-1150ft. (75-350m.) Blooms Mar-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Eriogonum elegans</i> elegant wild buckwheat	None/None G4G5/S4S5 4.3	Annual herb. Cismontane woodland, valley and foothill grassland. Usually in sandy or gravelly substrates; often in washes, sometimes roadsides. Elevations: 655-5005ft. (200-1525m.) Blooms May-Nov.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Eriophyllum jepsonii</i> Jepson's woolly sunflower	None/None G3/S3 4.3	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sometimes on serpentine. Elevations: 655-3365ft. (200-1025m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	None/None G5T1/S1 1B.1	Annual/perennial herb. Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. Elevations: 10-150ft. (3-45m.) Blooms (Jun)Jul(Aug).	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Erythranthe hardhamiae</i> Santa Lucia monkeyflower	None/None G1/S1 1B.1	Annual herb. Chaparral. Sandy soils in openings, sand-filled crevices of sandstone outcrops, sometimes serpentinite. Elevations: 985-2395ft. (300-730m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Eschscholzia hyppecoides</i> San Benito poppy	None/None G4/S4 4.3	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine clay. Elevations: 655-4920ft. (200-1500m.) Blooms Mar-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Fritillaria ojaiensis</i> Ojai fritillary	None/None G3/S3 1B.2	Perennial bulbiferous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Rocky sites. Sometimes on serpentinite; sometimes along roadsides. Elevations: 740-3275ft. (225-998m.) Blooms Feb-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Galium californicum</i> ssp. <i>lucense</i> Cone Peak bedstraw	None/None G5T3/S3 1B.3	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. In forest duff or gravelly talus of pine and oak forest, in partial shade. Elevations: 1310-5005ft. (400-1525m.) Blooms Mar-Sep.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Galium hardhamiae</i> Hardham's bedstraw	None/None G3/S3 1B.3	Perennial herb. Chaparral, closed-cone coniferous forest. On serpentinite with <i>Cupressus sargentii</i> . Elevations: 1295-3200ft. (395-975m.) Blooms Apr-Oct.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Gilia tenuiflora</i> ssp. <i>amplifaucalis</i> trumpet-throated gilia	None/None G3G4T3/S3 4.3	Annual herb. Cismontane woodland, valley and foothill grassland. Sandy soils. Elevations: 1280-2955ft. (390-900m.) Blooms Mar-Apr.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Hesperervax caulescens</i> hogwallow starfish	None/None G3/S3 4.2	Annual herb. Valley and foothill grassland, vernal pools. Clay soils; mesic sites. Elevations: 0-1655ft. (0-505m.) Blooms Mar-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Hooveria purpurea</i> var. <i>purpurea</i> Santa Lucia purple amole	FT/None G2T2/S2 1B.1	Chaparral, cismontane woodland, valley and foothill grassland. Often in open grasslands, sometimes within scattered oak woodlands and open areas in shrublands. Gravelly clay soils. 205-385m. Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. Elevations: 35-655ft. (10-200m.) Blooms Apr-Sep.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>SHorkelia yadonii</i> Santa Lucia horkelia	None/None G3/S3 4.2	Perennial rhizomatous herb. Broadleafed upland forest, chaparral, cismontane woodland, meadows and seeps, riparian woodland. Sandy meadow edges, seasonal streambeds. Granitic soils. Elevations: 985-6235ft. (300-1900m.) Blooms Apr-Jul.	None	Suitable habitat within the Study Area is not present. Additionally, no members of the genus <i>Horkelia</i> were observed within the Study Area. Therefore, the species is not expected to occur.
<i>Hosackia gracilis</i> harlequin lotus	None/None G3G4/S3 4.2	Perennial rhizomatous herb. Broadleafed upland forest, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, meadows and seeps, north coast coniferous forest, valley and foothill grass.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Juncus luciensis</i> Santa Lucia dwarf rush	None/None G3/S3 1B.2	Annual herb. Chaparral, great basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. Elevations: 985-6695ft. (300-2040m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Lasthenia californica</i> ssp. <i>macrantha</i> perennial goldfields	None/None G3T2/S2 1B.2	Perennial herb. Coastal bluff scrub, coastal dunes, coastal scrub. Elevations: 15-1705ft. (5-520m.) Blooms Jan-Nov.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Lasthenia leptalea</i> Salinas Valley goldfields	None/None G3/S3 4.3	Annual herb. Cismontane woodland, valley and foothill grassland. Elevations: 195-3495ft. (60-1065m.) Blooms Feb-Apr.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Layia heterotricha</i> pale-yellow layia	None/None G2/S2 1B.1	Annual herb. Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. Elevations: 985-5595ft. (300-1705m.) Blooms Mar-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Layia jonesii</i> Jones' layia	None/None G2/S2 1B.2	Annual herb. Chaparral, valley and foothill grassland. Clay soils and serpentine outcrops. Elevations: 15-1310ft. (5-400m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Lessingia tenuis</i> spring lessingia	None/None G4/S4 4.3	Annual herb. Chaparral, cismontane woodland, lower montane coniferous forest. Openings. Elevations: 985-7055ft. (300-2150m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Lomatium parvifolium</i> small-leaved lomatium	None/None G3/S3 4.2	Perennial herb. Chaparral, closed-cone coniferous forest, coastal scrub, riparian woodland. On serpentine. Elevations: 65-2295ft. (20-700m.) Blooms Jan-Jun.	None	No suitable serpentine soils are present within the Study Area. This species is not expected to occur.
<i>Malacothamnus abbottii</i> Abbott's bush-mallow	None/None G1/S1 1B.1	Perennial deciduous shrub. Riparian scrub. Among willows near rivers and along roadsides. Elevations: 445-1610ft. (135-490m.) Blooms May-Oct.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	None/None G2/S2 1B.2	Perennial deciduous shrub. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy washes. Elevations: 605-3740ft. (185-1140m.) Blooms Jun-Jan.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Malacothamnus palmeri</i> var. <i>palmeri</i> Santa Lucia bush-mallow	None/None G3T2Q/S2 1B.2	Perennial deciduous shrub. Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea. Elevations: 195-1180ft. (60-360m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Meconella oregana</i> Oregon meconella	None/None G2G3/S2 1B.1	Annual herb. Coastal prairie, coastal scrub. Open, moist places. Elevations: 820-2035ft. (250-620m.) Blooms Mar-Apr.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Monardella palmeri</i> Palmer's monardella	None/None G2/S2 1B.2	Perennial rhizomatous herb. Chaparral, cismontane woodland. On serpentine, often found associated with Sargent cypress forests. Elevations: 655-2625ft. (200-800m.) Blooms Jun-Aug.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Monolopia gracilens</i> woodland woollythreads	None/None G3/S3 1B.2	Annual herb. Broad-leafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. Elevations: 330-3935ft. (100-1200m.) Blooms (Feb)Mar-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> shining navarretia	None/None G4T2/S2 1B.2	Annual herb. Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. Elevations: 215-3280ft. (65-1000m.) Blooms (Mar)Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	None/None G2/S2 1B.2	Annual herb. Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. Elevations: 10-3970ft. (3-1210m.) Blooms Apr-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i> Robbins' nemacladus	None/None G3T2/S2 1B.2	Annual herb. Chaparral, valley and foothill grassland. Dry, sandy or gravelly slopes. Openings. Elevations: 1150-5580ft. (350-1700m.) Blooms Apr-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> California Gairdner's yampah	None/None G5T3T4/S3S4 4.2	Perennial herb. Broad-leaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Adobe flats or grasslands, wet meadows and vernal pools, under <i>Pinus radiata</i> along the coast; mesic sites. Elevations: 0-2000ft. (0-610m.) Blooms Jun-Oct.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Pinus radiata</i> Monterey pine	None/None G1/S1 1B.1	Perennial evergreen tree. Cismontane woodland, closed-cone coniferous forest. Dry bluffs and slopes. Elevations: 80-605ft. (25-185m.)	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Piperia leptopetala</i> narrow-petaled rein orchid	None/None G4/S4 4.3	Perennial herb. Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest. Elevations: 1245-7300ft. (380-2225m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Plagiobothrys uncinatus</i> hooked popcornflower	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Sandstone outcrops and canyon sides; often in burned or disturbed areas. Elevations: 985-2495ft. (300-760m.) Blooms Apr-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Sanicula hoffmannii</i> Hoffmann's sanicle	None/None G3/S3 4.3	Perennial herb. Broad-leaved upland forest, chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, lower montane coniferous forest. Cool slopes in deep soil, often in moist shaded serpentine soils, or in clay soils. Elevations: 100-985ft. (30-300m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Senecio aphanactis</i> chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Senecio astephanus</i> San Gabriel ragwort	None/None G3/S3 4.3	Perennial herb. Chaparral, coastal bluff scrub. Rocky slopes. Elevations: 1310-4920ft. (400-1500m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Sidalcea hickmanii</i> ssp. <i>hickmanii</i> Hickman's checkerbloom	None/None G3T2/S2 1B.3	Perennial herb. Chaparral, cismontane woodland, coastal bluff scrub. Grassy openings in chaparral, and on dry ridges. Elevations: 1100-4005ft. (335-1220m.) Blooms May-Jul.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	None/None G2T2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops, on ridges and slopes. Elevations: 310-3280ft. (95-1000m.) Blooms (Mar)Apr-Sep(Oct).	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Stylocline masonii</i> Mason's neststraw	None/None G1/S1 1B.1	Annual herb. Chenopod scrub, pinyon and juniper woodland. Sandy washes. Elevations: 330-3935ft. (100-1200m.) Blooms Mar-May.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Sulcaria spiralifera</i> twisted horsehair lichen	None/None G3G4/S2 1B.2	Fruticose lichen (epiphytic). Coastal dunes, north coast coniferous forest. Usually on conifers. Elevations: 0-295ft. (0-90m.)	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Systemotheca vortriedei</i> Vortriede's spineflower	None/None G3/S3 4.3	Annual herb. Chaparral, cismontane woodland. Sandy or serpentine soils. Elevations: 1640-5250ft. (500-1600m.) Blooms May-Sep.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Triteleia ixiooides</i> ssp. <i>cookii</i> Cook's triteleia	None/None G5T2T3/S2S3 1B.3	Perennial bulbiferous herb. Cismontane woodland, closed-cone coniferous forest. Streamsides, wet ravines; on serpentine and in serpentine seeps. Sometimes near cypresses. Elevations: 490-2295ft. (150-700m.) Blooms May-Jun.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
Invertebrates				
<i>Bombus caliginosus</i> obscure bumble bee	None/None G2G3/S1S2	Coastal areas from Santa Barbara County to north to Washington state. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> and <i>Phacelia</i> .	None	The site is highly developed, and no suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Danaus plexippus</i> pop. 1 monarch - California overwintering population	FC/None G4T2T3/S2S3	Roost in wind-protected tree groves along the coast from northern Mendocino to Baja California, Mexico.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
Fish				
<i>Eucyclogobius newberryi</i> tidewater goby	FE/None G3/S3	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, they need fairly still but not stagnant water and high oxygen levels.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Lavinia exilicauda harengus</i> Monterey hitch	None/None G4T2T4/S3 SSC	Wide variety of habitats throughout the Pajaro and Salinas river watersheds. Often found in lowland areas with large pools or in small reservoirs.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Oncorhynchus mykiss irideus</i> pop. 9 steelhead - south-central California coast DPS	FT/None G5T2Q/S2	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
Amphibians				
<i>Batrachoseps minor</i> lesser slender salamander	None/None G1/S1 SSC	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore and laurel. Shaded slopes with abundant leaf litter.	None	The Study Area is outside of the geographic range of this species. This species is not expected to occur.
<i>Rana boylei</i> pop. 6 foothill yellow-legged frog - south coast distinct population segment	Proposed Endangered/S E G3TNRQ/S1	Southern Coast Ranges from Monterey Bay south through San Gabriel Mountains; west of the Salinas River in Monterey Co, south through Transverse Ranges, and east through San Gabriel Mountains. Historically may have ranged to Baja California. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Rana draytonii</i> California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None	Low quality foraging and aquatic habitat is present in the Action Area in the existing wastewater treatment ponds; however, these ponds are not suitable for breeding of California red-legged frog. In addition, suitable aquatic habitat adjacent to the Study Area is absent. Therefore, this species is not expected to occur.
<i>Spea hammondi</i> western spadefoot	None/None G2G3/S3 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Taricha torosa</i> Coast Range newt	None/None G4/S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow-moving streams.	None	Suitable habitat is absent from the Study Area. This species is not expected to occur.
Reptiles				
<i>Anniella pulchra</i> Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Actinemys pallida</i> southwestern pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None	Suitable habitat does not occur within the Study Area.
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	None/None G5T2T3/S2? SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Thamnophis hammondi</i> two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	None	Suitable habitat does not occur within the Study Area. This species is not expected to occur.
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S1S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Ammodramus savannarum</i> grasshopper sparrow	None/None G5/S3 SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP and WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Low	No suitable nesting or foraging habitat occurs within the Study Area; however, the species may be incidentally encountered as it flies over the Study Area.
<i>Athene cunicularia</i> burrowing owl	None/CE G4/S3	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Buteo regalis</i> ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Coccyzus americanus</i> yellow-billed cuckoo	FT/SE G5T2T3/S1	Scattered populations in valley foothill and desert riparian habitats throughout California.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Eremophila alpestris actia</i> California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Falco mexicanus</i> prairie falcon	None/None G5/S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Gymnogyps californianus</i> California condor	FE/SE G1/S1 FP	Open savannah, grassland, and foothill chaparral habitats in mountain ranges throughout Central and Southern California.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Haliaeetus leucocephalus</i> bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Low	No suitable nesting or foraging habitat occurs within the Study Area; however, the species may be incidentally encountered as it flies over the Study Area.
<i>Rallus longirostris obsoletus</i> California Ridgeway's rail	FE/SE G5T1/S1 FP	Tidal and brackish marshes.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Setophaga petechia</i> yellow warbler	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	None	No suitable early successional riparian habitat is present within the Study Area. This species is not expected to occur.
Mammals				
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Dipodomys ingens</i> giant kangaroo rat	FE/SE G1G2/S1S2	Found in annual grasslands on the western side of the San Joaquin Valley. Occasionally occurs in alkali scrub. Prefers areas with sparse cover, can be found in areas of cattle grazing. Requires level or slightly sloping terrain and friable soils for burrowing.	None	No suitable habitat is present within the Study Area. The Study Area is well outside the geographic range of the species. This species is not expected to occur.
<i>Myotis thysanodes</i> <i>fringed myotis</i>	None/None G4/S3	Occurs in a variety of habitats including pinyon-juniper, valley foothill hardwood, and hardwood-coniferous forest. Roosts in caves, abandoned mines, buildings, and snags.	None	No suitable roosting habitat is present within the Study Area. This species is not expected to occur.
<i>Myotis yumanensis</i> <i>Yuma myotis</i>	None/None G5/S4	Occurs in a variety of lowland and upland habitats including desert scrub, riparian, and woodlands and forests. Distribution is closely tied to bodies of water. Roosts in a variety of areas including caves, cliffs, mines, crevices in live trees, and buildings and other man-made structures.	None	Low quality roosting habitat is present within the Study Area. This species is not expected to occur.
<i>Neotoma macrotis luciana</i> Monterey big-eared (dusky-footed) woodrat	None/None G5T3/S3 SSC	Forest habitats of moderate canopy and moderate to dense understory. Also, in chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.
<i>Perognathus inornatus</i> <i>psammophilus</i> Salinas pocket mouse	None/None G2G3T2?/S1 SSC	Annual grassland and desert shrub communities in the Salinas Valley. Fine-textured, sandy, friable soils. Burrows for cover and nesting.	None	No suitable habitat is present within the Study Area. This species is not expected to occur.

Heritage Ranch Community Services District
Heritage Ranch Water Resource Recovery Facility Project

Scientific Name Common Name	Status Fed/State ESA CDFW or CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Moderate	Because this species is highly mobile and can be adapted to disturbed areas, this species could traverse through the Study Area. However, this species would only be expected to construct dens within undeveloped areas surrounding the Action Area. No dens or other signs of badger, were observed during the site visits within the Study Area.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/ST G4T2/S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	None	No suitable habitat is present within the Study Area, and the Study Area is outside of the geographic range of the species. This species is not expected to occur.

Status (Federal/State)

FE = Federal Endangered
 FT = Federal Threatened
 FPE = Federal Proposed Endangered
 FPT = Federal Proposed Threatened
 FD = Federal Delisted
 FC = Federal Candidate
 FP = CDFW Fully Protected
 SE = State Endangered

ST = State Threatened
 SCE = State Candidate Endangered
 SCT = State Candidate Threatened
 SR = State Rare
 SD = State Delisted
 SSC = CDFW Species of Special Concern
 WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
 1B = Rare, Threatened, or Endangered in California and elsewhere
 2A = Presumed extirpated in California, but common elsewhere
 2B = Rare, Threatened, or Endangered in California, but more common elsewhere
 3 = Need more information (Review List)
 4 = Limited Distribution (Watch List)

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
 .2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
 .3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
 G2 or S2 Imperiled Globally or Subnationally (state)
 G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
 G4/5 or S4/5 Apparently secure, common and abundant
 GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
 Q – Questionable taxonomy that may reduce conservation priority
 ? – Inexact numeric rank

Appendix D

Floral and Faunal Compendium

Plant Species Observed within the Action Area on October 6, 2022 and November 22, 2024

Scientific Name	Common Name	Status	Native or Introduced
Shrubs and Trees			
<i>Quercus agrifolia</i>	Coast live oak	None	Native
<i>Baccharis pilularis</i>	Coyote brush	None	Native
Herbs			
<i>Erodium cicutarium</i>	Red-stemmed filaree	None	Introduced
<i>Lessingia glandulifera</i>	Vinegar weed	None	Native
<i>Brassica nigra</i>	Black mustard	None	Introduced
Grasses			
<i>Avena fatua</i>	Common wild oat	None	Introduced

Wildlife Species Observed within the Action Area on October 6, 2022 and November 22, 2024

Scientific Name	Common Name	Status	Native or Introduced
Birds			
<i>Calypte anna</i>	Anna’s hummingbird	None	Native
<i>Cathartes aura</i>	Turkey vulture	None	Native
<i>Aphelocoma californica</i>	Western scrub jay	None	Native
<i>Streptopelia decaocto</i>	Eurasian-collared dove	None	Native
Reptiles			
<i>Sceloporus occidentalis</i>	Western fence lizard	None	Native
Mammals			
<i>Otospermophilus beecheyi</i>	California ground squirrel	None	Native
<i>Odocoileus hemionus</i>	Mule deer	None	Native

Appendix E

Site Photographs



Photograph 1. Photograph of existing trees within the Action Area, facing northwest. November 22, 2024.



Photograph 2. Photograph of existing wastewater treatment plant facilities and Action Area, facing northwest. November 22, 2024.



Photograph 3. Photograph of trees and ruderal vegetation within and adjacent to the northern boundary of the Action Area, facing northeast. November 22, 2024.



Photograph 4. Photograph of ruderal vegetation and disturbed land cover within the Action Area, facing northeast. November 22, 2024.



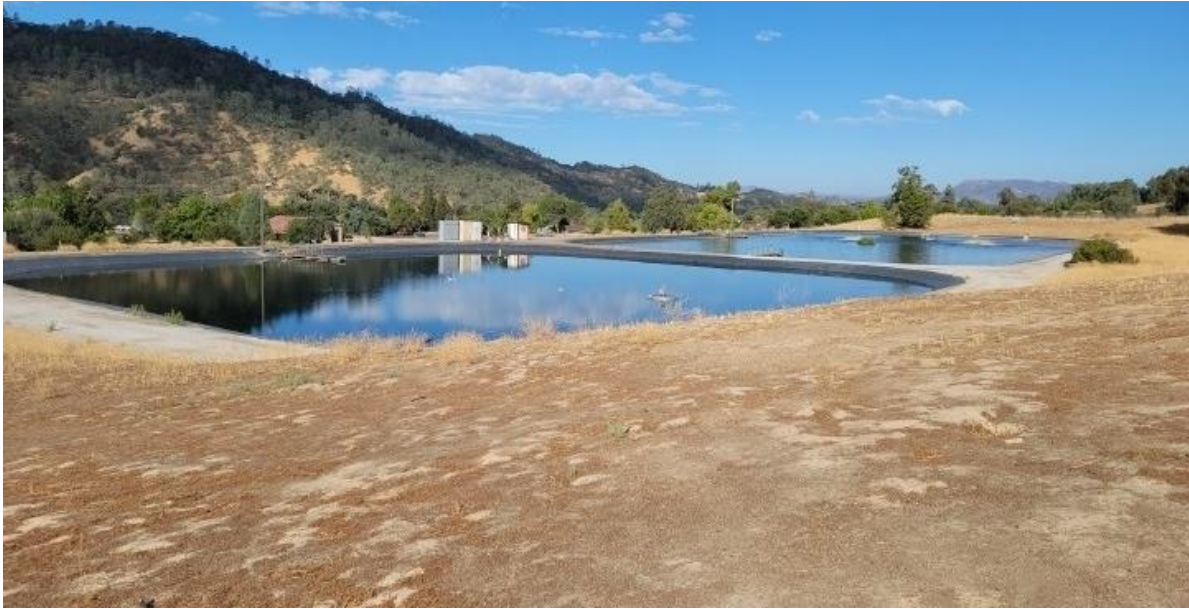
Photograph 5. Photograph of ruderal vegetation and disturbed land cover within the Action Area. Facing east. November 22, 2024.



Photograph 6. Photograph of small mammal burrows in the Action Area. Facing northeast. November 22, 2024.

Appendix B

Paleontological Resources Assessment



Heritage Ranch Water Resource Recovery Facility Project

REVISED Paleontological Resources Assessment

prepared for

Heritage Ranch Community Services District
4870 Heritage Road
Paso Robles, California 93446
Contact: Scott B. Duffield, P.E., General Manager

prepared by

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

December 2024



RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Table of Contents

Executive Summary 1

 Purpose and Scope 1

 Results of Investigation 1

 Impacts and Recommendations 1

1 Introduction 2

 1.1 Project Location 2

 1.2 Project Description 2

2 Regulations 6

 2.1 Federal Regulations 6

 2.2 State Regulations 6

 2.3 Regional and Local Regulations 7

3 Paleontological Resources Assessment Guidelines 8

 3.1 Paleontological Sensitivity 8

 3.2 Resource Assessment Criteria 8

4 Methods 10

5 Description of Resources 11

 5.1 Geologic Setting 11

 5.2 Geology of the Project Site 11

 5.3 Paleontology of the Project Site 13

6 Evaluation, Impacts, and Recommendations 14

 6.1 Paleontological Sensitivity Evaluation 14

 6.2 Impacts 14

 6.3 Recommendations 14

7 References 16

8 List of Preparers 17

Figures

Figure 1 Regional Location 3

Figure 2 Project Site Location 4

Figure 3 Geologic Map and Paleontological Sensitivity of the Project Site 12

Appendices

Appendix A Staff Resumes

Executive Summary

Purpose and Scope

Rincon Consultants, Inc. (Rincon) was retained by Water Systems Consulting, Inc. on behalf of the Heritage Ranch Community Services District (HRCSD) to conduct a Paleontological Resources Assessment (PRA) for the Heritage Ranch Water Resource Recovery Facility Project (project or proposed action) in San Luis Obispo County, California. This PRA includes a literature review, paleontological sensitivity assessment, and reporting consistent with the professional standards of the Society of Vertebrate Paleontology (SVP; 2010) to determine whether the proposed action would result in significant impacts to paleontological resources under the California Environmental Quality Act (CEQA) or adverse effects to paleontological resources under federal environmental protection laws. The project consists of expansion and upgrades to an existing wastewater treatment plant.

Results of Investigation

The project site is underlain by two geologic units, Quaternary older alluvium, and the Atascadero Formation (Dibblee and Minch 2007). Sediments similar to Quaternary older alluvium have produced scientifically significant paleontological resources throughout San Luis Obispo County (Bell 2022; Jefferson et al. 1992; Paleobiology Database 2022; University of California Museum of Paleontology 2022); therefore, this geologic unit has high paleontological sensitivity. The Atascadero Formation has produced Cretaceous-aged invertebrate fossils throughout the Coast Ranges of California, including near the project site (Bell 2022; Paleobiology Database 2022; University of California Museum of Paleontology 2022). Therefore, the Atascadero Formation has high paleontological sensitivity. A records search of the Natural History Museum of Los Angeles County determined there are no known fossil localities from within the project site (Bell 2022).

Impacts and Recommendations

The project site is underlain by two geologic units (Quaternary older alluvium and Atascadero Formation) with high paleontological sensitivity (Dibblee and Minch 2007). Ground-disturbing construction activities that affect previously undisturbed portions of these geologic units could result in significant impacts/adverse effects to paleontological resources under CEQA and federal environmental protection laws, respectively.

Ground-disturbing construction activities at the project site would consist of grading, trenching, and excavations that would reach up to approximately 15 feet and approximately 4.25 feet below the surface, respectively, which could significantly impact or adversely affect paleontological resources under CEQA and federal environmental protection laws, respectively.

Mitigation is recommended to reduce potential impacts/effects to paleontological resources to a level of less-than-significant under CEQA and no adverse effect under federal environmental protection laws. Recommended mitigation actions include paleontological monitoring for ground-disturbing activities within previously undisturbed sediments.

1 Introduction

Rincon Consultants, Inc. (Rincon) conducted a desktop Paleontological Resources Assessment (PRA) for the Heritage Ranch Water Resource Recovery Facility Project (project) in San Luis Obispo County, California. This assessment includes a literature review, paleontological records search, paleontological sensitivity assessment, and reporting consistent with the professional standards of the Society of Vertebrate Paleontology (SVP; 2010).

Paleontological resources (i.e., fossils) are the remains or traces of prehistoric life. Fossils are typically preserved in layered sedimentary rocks, and the distribution of fossils across the landscape is controlled by the distribution and exposure of the fossiliferous sedimentary rock units at and near the surface. Construction-related impacts that typically affect or have the potential to affect paleontological resources include mass excavation operations, drilling/borehole excavations, trenching/tunneling, and grading. Ground-disturbing construction activities associated with the proposed project would mainly consist of grading, trenching, and excavation. This PRA provides a list of the formations mapped at the surface within the project site and formations that underlie those mapped at the surface that may be impacted by project construction activities.

1.1 Project Location

The project site is located at 4870 Heritage Road in Lake Nacimiento, a census-designated place in unincorporated San Luis Obispo County (Assessor's Parcel Number [APN] 012-181-085) and is comprised of an approximately 6.8-acre area within the existing Heritage Ranch Community Services District (HRCSD) wastewater treatment plant property. See Figure 1 for a map of the regional project location and Figure 2 for a map of the project site in a local context.

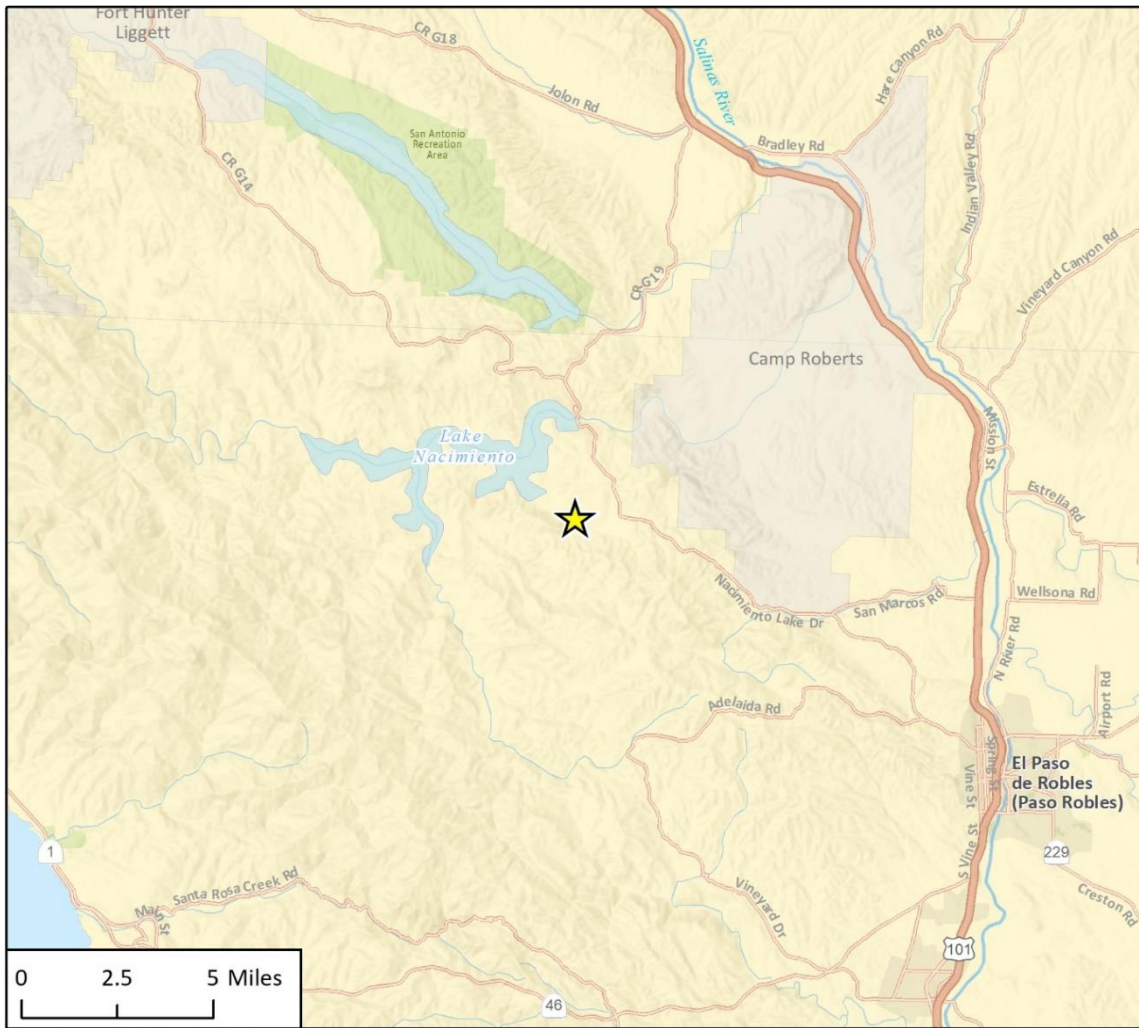
1.2 Project Description

The proposed project primarily consists of installation of a new packaged MBR wastewater treatment plant in the southeastern portion of the project site on a new concrete pad. The MBR would include a dual-fine screen with washer compactor, anoxic/aerobic basin trains, and membrane filtration units. An MBR is an activated sludge-based treatment system that also incorporates membrane filtration for solids separation in lieu of a secondary clarifier. The membranes can handle higher solids flux rates than conventional secondary clarification can, thus reducing the footprint for the system. The membranes also provide tertiary filtration without requiring a separate tertiary filtration process. The MBR would also have new influent equalization incorporated into the process.

The proposed project also involves the following improvements to the existing HRCSD wastewater treatment plant to accommodate the new MBR system:

- Modification of the three influent sanitary sewer force mains to be able to pump to either a new influent pump station or directly to Emergency Storage (Aeration Pond 1). Plug valves would be added, and existing sanitary sewer force mains would be extended to the MBR. Sewer force mains would extend from the southwestern edge of the project site to the MBR.

Figure 1 Regional Location¹



Basemap provided by Esri and its licensors © 2022.

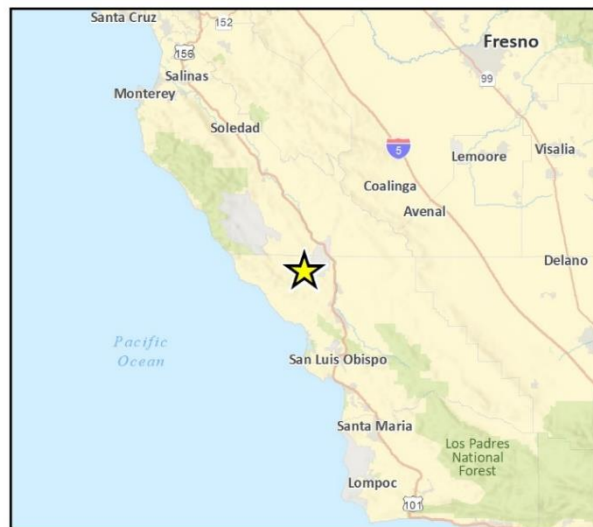


Fig. 3 Regional Location

¹ The project site excludes the existing HRCSD solar array (located in the middle of the project site), which would not be impacted by the proposed project.

Figure 2 Project Site Location²



² The project site excludes the existing HRCSD solar array (located in the middle of the project site), which would not be impacted by the proposed project.

- Installation of a new influent pump station adjacent to the MBR to receive flow from the collection system's lift stations
- Installation of a dewatering sludge storage tank and dewatering press adjacent to the MBR
- Installation of a new, 25,000-gallon effluent storage tank and effluent pump station with vertical turbine pumps
- Installation of a new chlorine dosing system
- Installation of a new diesel back-up generator on a concrete pad adjacent to the MBR
- Completion of various on-site yard piping upgrades to provide new bypass connections and drainage
- Completion of electrical upgrades, including a new power service connection and remote Supervisory Control and Data Acquisition (SCADA) system
- Repurposing of Aeration Pond 1 for emergency storage with a pond drain returning to the influent pump station and a self-priming influent pump station capable of pumping out of Pond 1 to the influent pump station
- Decommissioning of Aeration Pond 2 and filling/removing interconnecting piping between Aeration Ponds 1 and 2. Aeration Pond 2 would only be used as a backup emergency storage pond should Aeration Pond 1 be filled

The proposed project would produce tertiary treated effluent and would have an average annual daily flow capacity of approximately 0.24 million gallons per day.

Construction of the proposed project would occur over approximately 18 months and is anticipated to commence as early as April 2025 and conclude in April 2027. Construction activities would consist of demolition, site preparation, minor grading, and infrastructure installation. In addition, some vegetation removal would be required to accommodate the proposed project. On-site utilities such as electrical, sewer, and water lines would likely be demolished or relocated within the project site. Approximately 7,000 cubic yards of soil would be excavated and used on site as fill material. In addition, minor quantities of soil material would be exported, and minor quantities of fill material would be imported for surfacing and subgrade preparation.

2 Regulations

2.1 Federal Regulations

Because the project may seek federal funding, this project must comply with several federal regulations in addition to the requirements of CEQA.

National Environmental Policy Act (42 United States Code, Section 4321 et seq.; 40 Code of Federal Regulations Section 1502.25)

The National Environmental Policy Act, as amended, directs federal agencies to “preserve important historic, cultural, and natural aspects of our national heritage (Section 101[b][4]).” The current interpretation of this language includes scientifically important paleontological resources among those resources potentially requiring preservation.

2.2 State Regulations

California Environmental Quality Act

Paleontological resources are protected under CEQA, which states a project would “normally” have a significant effect on the environment if project effects exceed an identified threshold of significance (CEQA Guidelines Section 15064.7[a]). Appendix G of the CEQA Guidelines (the Environmental Checklist Form) provides suggested thresholds of significance for evaluating a project’s environmental impacts, including impacts to paleontological resources. In Section VII(f), the question is posed thus: “Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” To determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged). Therefore, CEQA mandates mitigation of adverse impacts, to the extent practicable, to paleontological resources.

CEQA does not define “a unique paleontological resource or site.” However, the SVP (2010) has defined a “significant paleontological resource” in the context of environmental review as follows:

Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information.

Paleontological resources are typically older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years) (SVP 2010).

The loss of paleontological resources meeting the criteria outlined above (i.e., a significant paleontological resource) would be a significant impact under CEQA, and the CEQA lead agency is responsible for mitigating impacts to paleontological resources, where practicable, in compliance with CEQA and other applicable statutes.

California Public Resources Code

California Public Resources Code Section 5097.5 states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Here “public lands” means those owned by, or under the jurisdiction of, the State or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

2.3 Regional and Local Regulations

County of San Luis Obispo General Plan

The Conservation and Open Space Element of the County of San Luis Obispo General Plan addresses paleontological resources (County of San Luis Obispo 2010). Goal CR 4 states, “The county’s known and potential Native American, archaeological and paleontological resources will be preserved and protected,” and Policy CR 4.5 explains the County’s implementation strategies for protecting paleontological resources:

Policy CR 4.5 Paleontological Resources: Protect paleontological resources from the effects of development by avoiding disturbance where feasible.

- **Implementation Strategy CR 4.5.1 Paleontological Studies.** Require a paleontological resource assessment and mitigation plan to 1) identify the extent and potential significance of the resources that may exist within the proposed development and 2) provide mitigation measures to reduce potential impacts when existing information indicates that a site proposed for development may contain biological, paleontological, or other scientific resources.
- **Implementation Strategy CR 4.5.2 Paleontological Monitoring.** Require a paleontologist and/or registered geologist to monitor site-grading activities when paleontological resources are known or likely to occur. The monitor will have the authority to halt grading to determine the appropriate protection or mitigation measures. Measures may include collection of paleontological resources, curation of any resources collected with an appropriate repository, and documentation with the County.

3 Paleontological Resources Assessment Guidelines

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state and local laws and regulations. This PRA satisfies Public Resources Code Section 5097.5 requirements and follows guidelines and significance criteria specified by the SVP (2010).

3.1 Paleontological Sensitivity

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits within which fossils are buried and physically destroy the fossils. Because fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. These activities may constitute significant impacts under CEQA or adverse effects under federal environmental protection laws and may require mitigation. Sensitivity is determined by rock type, history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey.

The discovery of a vertebrate fossil locality is of greater significance than that of an invertebrate fossil locality, especially if it contains a microvertebrate assemblage. The recognition of new vertebrate fossil locations could provide important information on the geographical range of the taxa, their radiometric age, evolutionary characteristics, depositional environment, and other important scientific research questions. Vertebrate fossils are almost always significant because they occur more rarely than invertebrates or plants. Thus, geologic units having the potential to contain vertebrate fossils are considered the most sensitive.

3.2 Resource Assessment Criteria

In its Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, the SVP outlines guidelines for categorizing paleontological sensitivity of geologic units within a project site. The SVP describes sedimentary rock units as having a high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrates or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, or uncommon diagnostically, stratigraphically, taxonomically, or regionally (SVP 2010). The paleontological sensitivity of the project site has been evaluated according to the following SVP (2010) categories:

- **High Potential (Sensitivity).** Rock units from which significant vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant non-renewable fossiliferous resources. These units include, but are not limited to, sedimentary formations and some volcanic formations that contain significant nonrenewable paleontological resources anywhere within their geographical extent and sedimentary rock units temporally or lithologically suitable for the preservation of

fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas that contain potentially datable organic remains older than recent, including deposits associated with nests or middens, and areas that may contain new vertebrate deposits, traces, or trackways are also classified as significant. Full-time monitoring is typically recommended during any project-related ground disturbance in geologic units with high sensitivity.

- **Low Potential (Sensitivity).** Sedimentary rock units that are potentially fossiliferous but have not yielded fossils in the past or contain common and/or widespread invertebrate fossils of well-documented and understood taphonomic processes (those affecting an organism following death, burial, and removal from the ground), phylogenetic species (evolutionary relationships among organisms), and habitat ecology. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potential for yielding significant fossils prior to the start of construction. Generally, these units will be poorly represented by specimens in institutional collections and will not require protection or salvage operations.
- **Undetermined Potential (Sensitivity).** Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potential of the rock units are required before programs of impact mitigation for such areas may be developed.
- **No Potential.** Rock units of metamorphic or igneous origin are commonly classified as having no potential for containing significant paleontological resources.

4 Methods

Rincon reviewed published geologic maps to identify the geologic units present at and below the surface within the project site (Dibblee and Minch 2007). Rincon reviewed the online paleontological collections database of the University of California Museum of Paleontology (UCMP; 2023) and Paleobiology Database (2023) and consulted primary literature to identify known fossil localities in San Luis Obispo County and surrounding regions from similar geologic units to those identified within the project site. Rincon requested a records search of the Natural History Museum of Los Angeles County on September 15, 2022, to identify any fossil localities known from within the project site or nearby fossil localities known from the same geologic units as those underlying the project site. The project site contains no bedrock exposures; therefore, a field survey was not warranted.

Paleontological sensitivity ratings of the geological formations were assigned based on the findings of the records search and literature review and based on the potential effects to nonrenewable paleontological resources from project construction following SVP (2010) guidelines.

5 Description of Resources

5.1 Geologic Setting

The project site is located in the Coast Ranges geomorphic province, one of the eleven geomorphic provinces of California (California Geological Survey 2002). The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County in the south and consist of northwest-trending mountain ranges and valleys. The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. The eastern side is characterized by strike-ridges and valleys in the Upper Mesozoic strata. The Coast Ranges province runs parallel to and overlaps the San Andreas Fault in some areas (California Geological Survey 2002).

Locally, the project site is within the *Lime Mountain* United States Geological Survey 7.5-minute quadrangle. The overall project site is within the southeastern part of the Santa Lucia Range, southeast of Lake Nacimiento (see Figure 1 in Section 1.1, *Project Location*).

5.2 Geology of the Project Site

The geology of the region around the project site was mapped at a scale of 1:24,000 by Dibblee and Minch (2007), who identified two geologic units underlying the site - Quaternary older alluvium and the Atascadero Formation (Figure 3).

Quaternary Older Alluvium

Quaternary older alluvium underlies most of the project site (Figure 3). Quaternary older alluvium consists of weakly indurated gravel, sand, and clay that is Pleistocene in age (Dibblee and Minch 2007). Pleistocene alluvial sediments have produced scientifically significant paleontological resources throughout San Luis Obispo County, including taxa such as mammoths (*Mammuthus*), bison (*Bison*), ground sloth (*Paramylodon*), horse (*Equus*), camel (*Camelops*), and rodents (Bell 2022; Jefferson et al. 1992; Paleobiology Database 2023; UCMP 2023). Given this fossil-producing history, Quaternary older alluvium has **high paleontological sensitivity**.

Atascadero Formation

The Atascadero Formation underlies the northern part of the project site (Figure 3). The Atascadero Formation consists of light gray to light brown, thick-bedded sandstone with lenses of cobble conglomerate and micaceous claystone (Dibblee and Minch 2006 and 2007). The part of the Atascadero Formation that underlies the project site is Late Cretaceous in age. The Atascadero Formation has produced several Late Cretaceous invertebrate bearing localities (mostly bivalve), including near Lake Nacimiento (Bell 2022; UCMP 2023). Therefore, the Atascadero Formation has **high paleontological sensitivity**.

Figure 3 Geologic Map and Paleontological Sensitivity of the Project Site



5.3 Paleontology of the Project Site

A formal paleontological records search of the Natural History Museum of Los Angeles County identified no known fossil localities within the project site (Bell 2022). However, multiple localities yielding significant paleontological resources (i.e., horse, mammoth, and mastodon) have been recorded from unnamed Pleistocene deposits, similar to Quaternary older alluvium, approximately 10 miles east and southeast of the project site. Additionally, unidentified invertebrate fossils are known from Atascadero Formation deposits approximately 12 miles south of the project site.

6 Evaluation, Impacts, and Recommendations

6.1 Paleontological Sensitivity Evaluation

The project site is underlain by two geologic units, Quaternary older alluvium and the Atascadero Formation (Figure 3). As indicated in Section 5, *Description of Resources*, Quaternary older alluvium and the Atascadero Formation both have high paleontological sensitivity.

6.2 Impacts

Ground-disturbing activities (i.e., grading, excavating, trenching) in previously undisturbed portions of the project site that are underlain by geologic units with a high paleontological sensitivity (i.e., Quaternary older alluvium or Atascadero Formation) may result in significant impacts to paleontological resources under CEQA or adverse effects to paleontological resources under federal environmental protection laws. If construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data, they would be considered as having a significant impact or adverse effect on paleontological resources.

Ground-disturbing construction activities at the project site would consist of grading and excavations that are expected to reach up to approximately 15 feet below the surface. At this depth, undisturbed portions of either Quaternary older alluvium or the Atascadero Formation, both of which have high paleontological sensitivity (Figure 3), would likely be impacted. Therefore, project construction has the potential to significantly impact or adversely affect paleontological resources under CEQA and federal environmental protection laws, respectively.

6.3 Recommendations

The following mitigation measure would address potentially significant impacts/adverse effects under CEQA and federal environmental protection laws, respectively, if paleontological resources are encountered during project-related ground-disturbing activities. This measure would only apply to ground-disturbing activities in previously undisturbed sediments associated with the construction at the project site. Implementation of the following mitigation recommendations would effectively mitigate the project's potentially significant impacts/adverse effects to these resources under CEQA and federal environmental protection laws, respectively, through the recovery, identification, and curation of previously unrecovered fossils.

Paleontological Resources Monitoring and Mitigation

- **Qualified Paleontologist.** HRCSD should retain a Qualified Professional Paleontologist, as defined by SVP (2010) standards. The Qualified Professional Paleontologist should direct all mitigation measures related to paleontological resources.
- **Paleontological Worker Environmental Awareness Program.** Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological

Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.

- **Paleontological Monitoring.** Full-time paleontological monitoring should be conducted during ground-disturbing construction activities in previously undisturbed sediments associated with construction at the project site. Paleontological monitoring should be conducted by a qualified paleontological monitor, who is defined as an individual with experience collecting and salvaging paleontological resources and meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The Qualified Professional Paleontologist may recommend that monitoring be reduced in frequency or ceased entirely based on geologic observations. Such decisions shall be subject to review and approval by HRCSD.
 - a. **Fossil Discovery Procedures.** In the event of a fossil discovery by the paleontological monitor or construction personnel, all construction activity within 50 feet of the find shall cease, and the Qualified Professional Paleontologist shall evaluate the find. If the fossil(s) is (are) not scientifically significant, then construction activity may resume. If it is determined that the fossil(s) is (are) scientifically significant, the following shall be completed:
 - b. **Fossil Salvage.** The paleontological monitor shall salvage (i.e., excavate and recover) the fossil to protect it from damage/destruction. Typically, fossils can be safely salvaged quickly by a single paleontological monitor with minimal disruption to construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits. After the fossil(s) is (are) salvaged, construction activity may resume.
 - c. **Fossil Preparation and Curation.** Fossils shall be identified to the lowest (i.e., most-specific) possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.
- **Final Paleontological Mitigation Report.** Upon completion of ground-disturbing activities (or laboratory preparation and curation of fossils, if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts. The report shall include a summary of the field and laboratory methods employed; an overview of project geology; and, if fossils were discovered, an analysis of the fossils, including physical description, taxonomic identification, and scientific significance. The report shall be submitted to the HRCSD and, if fossil curation occurs, the designated scientific institution.

7 References

- Bell, A. 2022. Collections search of the Natural History Museum of Los Angeles County for the Heritage Ranch Water Resource Recovery PRA Project (#21-11535), dated October 2, 2022.
- California Geological Survey. 2002. California Geomorphic Provinces. *California Geological Survey Note 36*.
https://www.coastal.ca.gov/coastalvoices/resources/California_Geomorphic_Provinces.pdf (accessed October 2022).
- Dibblee, T.W. and J.A. Minch. 2007. Geologic map of the Lime Mountain quadrangle, San Luis Obispo County, California. [map.] Dibblee Geological Foundation, Dibblee Foundation Map DF-285, scale 1:24,000.
- Jefferson, G.T., H.L. Fierstine, J.R. Wesling, and T.-L. Ku. 1992. Pleistocene terrestrial vertebrates from near Point San Luis and other localities in San Luis Obispo County, California. *Bulletin of the Southern California Academy of Sciences*. Volume 91, pp. 26-38.
- Paleobiology Database. 2023. The Paleobiology Database. <http://paleobiodb.org/> (accessed September 2023).
- San Luis Obispo, County of. 2010. County of San Luis Obispo General Plan: Conservation and Open Space Element. May 2010. [https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Plans-and-Elements/Elements/Conservation-and-Open-Space-Element-\(1\)/Conservation-and-Open-Space-Element.pdf](https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Plans-and-Elements/Elements/Conservation-and-Open-Space-Element-(1)/Conservation-and-Open-Space-Element.pdf) (accessed October 2022).
- Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. *Society of Vertebrate Paleontology*, 1–11.
- University of California Museum of Paleontology (UCMP). 2023. UCMP online database specimen search portal, <http://ucmpdb.berkeley.edu/> (accessed September 2023).

8 List of Preparers

Rincon Consultants, Inc.

Primary Author

- Andrew McGrath, Paleontologist

Principal Review

- Shannon Carmack, Principal

Appendix A

Staff Resumes



Shannon Carmack

Principal/Architectural History Program Manager

Shannon has more than 21 years of professional experience providing cultural resources management and historic preservation planning for large-scale and high-profile projects. She has worked throughout California in numerous sectors including local planning, development/construction, public utilities, Department of Defense, transportation, recreation, and education. Shannon prepares documentation to satisfy CEQA/NEPA, Section 106, and Local Historic Preservation Ordinances. She also provides reports and studies that are in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and the California Historic Building Code. She has developed and implemented successful mitigation for countless projects that included Historic American Building Survey documentation, oral histories, and interpretive programs. Shannon meets and exceeds requirements in the Secretary of the Interior's Professional Qualification Standards in Architectural History and History. Her experience includes being the Senior Architectural Historian on several projects including the City of Beverly Hills 9006 Wilshire Boulevard Historic Assessment, City of West Hollywood – 7965-7985 Santa Monica Boulevard EIR, and City of West Hollywood – Perry Hotel and Residences Cultural Resources Report.

EDUCATION

BA, History, emphasis in American History, California State University, Long Beach
AA, Anthropology, Orange Coast College

CERTIFICATIONS/ REGISTRATIONS

Green Strategies for Historic Buildings, National Preservation Institute
CEQA Workshop Training, Association of Environmental Professionals
Oral History Methods, California State University, Long Beach
Identification and Evaluation of Mid-twentieth Century Buildings, National Preservation Institute
Section 4(f) Cultural Resources Compliance for Transportation Projects, National Preservation Institute

YEARS OF EXPERIENCE

21

SELECT PROJECT EXPERIENCE

Principal-in-Charge, City of Los Angeles Sanitation District – Cultural Resources Assessment for the Reseda Riverloop Greenway Project, Los Angeles County

Shannon is currently serving as Principal-in-Charge for the Cultural Resources Assessment for the Reseda Riverloop Greenway Project, which is subject to Section 106. The project proposes the development of a pedestrian greenway and associated small scale infrastructure along and near the banks of the Los Angeles River, roughly between Wilbur Avenue and Reseda Boulevard in Los Angeles's Reseda neighborhood. The assessment includes the delineation of an Area of Potential Effects (APE), review of a previously conducted search of the California Historical Resources Information System (CHRIS), a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), Native American consultation, archival and background research, and a cultural resources field survey and builds on the findings of the Cultural Resources Assessment Report for the Los Angeles Bikeway and Greenway Project, prepared by Rincon in 2020.

Senior Architectural Historian, West Basin Municipal Water District (subconsultant to Prime contractor) – Palos Verdes Recycled Water Pipeline Project CEQA Documentation, Los Angeles County

Shannon served as Senior Architectural Historian for this project on behalf of the West Basin Municipal Water District. Shannon assisted with a cultural resources technical study for the project to deliver recycled water from the existing Anza Lateral pipeline in the city of Torrance to the Palos Verdes Golf Club in the city of Palos Verdes Estates. Rincon conducted a cultural resources technical study in accordance with CEQA Plus which included compliance with Section 106 of the National Historic Preservation Act. Specifically, Shannon led the built environment component of the analysis which included historic group consultation and the evaluation of several historic-period resources, including the Palos Verdes Golf Club property, which was determined to be ineligible for historic designation.



Architectural Historian, City of Merced – Tank No. 3 Historic American Engineering Record, Merced County

Shannon served as Architectural Historian for the City of Merced Public Works Department demolition of its existing water tank due to its structural failing. The tank was previously determined eligible for the National Register of Historic Places and was listed in the California Register of Historical Resources. To mitigate the demolition of the historical resource in accordance with CEQA, Rincon was retained to complete a historic documentation package that included photographs and a written history of the structure, in accordance with National Park Service Guidance. Specifically, Shannon served as project manager and reviewed the documentation for quality assurance and quality control.

Senior Architectural Historian, Santa Cruz County – Five Waters Pipelines Project, Santa Cruz County

Shannon served as Senior Architectural Historian, assisting with conducting a cultural resources study of the Project on behalf of the San Lorenzo Valley Water District. The project site is generally located in the vicinity of the communities of Ben Lomond, Boulder Creek, and Felton in Santa Cruz County. One historic property was identified within the APE; a segment of California State Route (SR) 236, which is significant for its role in facilitating early and ongoing tourism in Big Basin Redwoods State Park, California's oldest state park. Shannon conducted an analysis of the resource and potential project effects and concluded that no historic properties would be affected by the project.

Senior Architectural Historian, County of San Diego – Pacific Beach Pipeline Project, San Diego

Shannon served as Senior Architectural Historian for water pipeline improvement project located within the San Diego community of Pacific Beach. One built environment resource, a semi-subterranean water reservoir constructed in 1908 was found ineligible for listing at the National, State and local level of historic significance. The analysis included archival research, a site visit, proportion of DPR forms and development of a historic context for the report.

Cultural Resources Principal, Montecito Water District – Alder Creek Flume Repair Project CEQA/NEPA Documentation and Regulatory Permitting, Santa Barbara County

Shannon provided senior oversight for the Alder Creek Flume Repair Project, located in the Los Padres National Forest. The project will replace a section of Alder Flume, which was extensively damaged following the Thomas Fire in 2017. The project requires a permit from the United States Forest Service and is receiving funding from the Federal Emergency Management Agency and is therefore considered a federal undertaking subject to Section 106 of the National Historic Preservation Act. Shannon served as the Principal for the cultural resources technical study with efforts including coordination with the United States Forest Service, field survey, and preparation of a technical report.

Project Manager, County of Los Angeles Chief Executive Office – Historical Resources Compliance for the Rancho Los Amigos National Rehabilitation Center Historic District, City of Downey, County of Los Angeles

Shannon was Project Manager for the project to provide historic preservation services to the County of Los Angeles in support of redevelopment efforts on the Rancho Los Amigos National Rehabilitation Center campus. The property contains a California Register-listed historic district with 73 buildings and structures stretched out on 52-acres. Project included surveys, building documentation and historic research for the master planning process to document the upcoming programming and facility needs of the County. Additional documents included a four-volume Feasibility Analysis which considered the rehabilitation and adaptive reuse of each historic district contributor, Historic American Building Survey documentation/ and mitigation monitoring compliance. Coordination with project architects and engineers on appropriate treatments to historic buildings in compliance with the Standards was required as well as familiarity with the State Historical Building Code. The project also required attendance at numerous meetings with the project team, agencies, municipalities, and community groups.

FULL AFFILIATIONS

- California Council for the Promotion of History, Member
- California Preservation Foundation, Member
- Los Angeles Conservancy, Member
- National Trust for Historic Preservation, Member
- Long Beach Heritage, Member
- Historical Society of Long Beach, Member



- Cultural Heritage Commission, City of Long Beach, Commissioner

PUBLICATIONS/PRESENTATIONS

There is No Try: Moving an Immovable Object at Mission San Gabriel, Society for California Archaeology, Visalia, California, March 2014 [Co-author: Shannon Carmack]

March 19, 2010. Presenter, with Judith Marvin. "San Timoteo Canyon and the Noble Family." Annual Conference, Society for California Archaeology, Riverside, California

March 2008. Presenter, with Leslie Heumann and Marie Campbell. "Feasibility Analysis for Historic Properties" Annual Conference, National Association of Environmental Professionals, San Diego, California

January 2007. Presenter, with Judith Marvin. "Settlement and Economic Confluence on the Western Expanse: Native American Power Brokers and Anglo American Entrepreneurs in San Timoteo Canyon and San Gorgonio Pass" Annual Conference, Society for Historical Archaeology, Williamsburg, Virginia





Andrew J. McGrath, PhD

Paleontologist/Project Manager

Dr. McGrath has three years of experience as a paleontological resources consultant, and nine years of paleontological research experience, including fieldwork in California and Bolivia, presentations at international research conferences, and multiple first-author publications.

Dr. McGrath earned a PhD in Earth Science in 2021 from the University of California, Santa Barbara. For his dissertation, Dr. McGrath analyzed South American native ungulate and rodent taxonomy, phylogeny, biochronology, and locomotor ecology.

Since joining Rincon in July 2021, Dr. McGrath has conducted construction monitoring and field surveys; prepared technical documents (e.g., environmental impact reports, initial studies, construction compliance monitoring reports, and paleontological mitigation plans); and helped manage compliance and staffing on large construction projects. These projects have been completed in compliance with a variety of federal (Bureau of Land Management, National Park Service), state (California Energy Commission, Caltrans), and municipal regulatory agencies.

EDUCATION

PhD, Earth Science, University of California, Santa Barbara
Certificate in College and University Teaching, University of California, Santa Barbara

BA, Biology &

BA, Evolutionary Biology, summa cum laude, Case Western Reserve University, Cleveland, Ohio

YEARS OF EXPERIENCE

3

SELECT PROJECT EXPERIENCE

Assistant Project Manager, Metropolitan Water District – Prestressed Concrete Cylinder Pipe Rehabilitation Program, Reach 3a Project, Los Angeles County

Dr. McGrath created and delivered a Worker Environmental Awareness Program for paleontological and cultural resources and ensured compliance with regards to paleontological resources for this project in the cities of Los Angeles, Long Beach, Carson, and Torrance, California.

Assistant Project Manager/Field Director, Casitas Municipal Water District – East and West Ojai Avenue Pipeline Replacement Project, Ventura County

Dr. McGrath coordinated paleontological monitors, conducted paleontological monitoring, and drafted the final monitoring report for this water pipeline replacement project in Ojai, California.

Assistant Project Manager/Field Monitor, Soquel Creek Water District – Country Club Well Mitigation Project, Santa Cruz County

Dr. McGrath wrote the Paleontological Resources Mitigation Plan and Paleontological Monitoring Report and served as the paleontological monitor for this project which involved constructing a new well and associated infrastructure in Aptos, California.

Assistant Project Manager/Field Director, Southern California Edison Company – Del Valle Substation, Los Angeles and Ventura Counties

Dr. McGrath reviewed an existing Paleontological Resources Technical Report, conducted two field surveys of the proposed project area, and drafted an addendum to the Paleontological Resources Technical Report summarizing those field surveys.

Assistant Project Manager/Qualified Paleontologist, Los Angeles County Metropolitan Transportation Authority – Metrolink Lancaster Station Improvements Project, Los Angeles County

This project involves upgrading the Lancaster Metrolink station as part of the Los Angeles County Metropolitan Transportation Authority's updated Metrolink Antelope Valley Line (AVL), which will provide rapid passenger train service between Los Angeles Union Station and Lancaster. Dr. McGrath prepared the Paleontological Mitigation and Monitoring Plan to guide paleontological monitoring during project construction to comply with AVL's programmatic Environmental Impact Report.



Paleontological Oversight, California High-Speed Rail – Construction Package 1 (CP-1), Fresno & Madera Counties

CP-1 of California's high-speed rail system extends from the City of Madera to the City of Fresno. Dr. McGrath is responsible for paleontological mitigation along this segment, including directing monitors, reviewing monitoring logs, managing fossil curation, and creating non-compliance reports or directive letters, as necessary.

Project Manager, Lockwood at Vintage LLC – Lockwood Apartments 1&2 Project, Ventura County

The Lockwood Apartments 1&2 Project involves the construction of an apartment complex in Oxnard, California. Dr. McGrath is responsible for coordinating paleontological monitoring and pre-construction biological surveys for this project.

Assistant Project Manager/Field Director, California High Speed Rail – CP-1D North Extension Project, Madera County

CP-1D is located in Madera, California. Dr. McGrath was responsible for scheduling paleontological and archaeological monitors, coordinating with Native American monitors, and drafting monthly compliance reports.

Assistant Project Manager, Intersect Power – Blythe Mesa Solar II Project, Riverside County

The Blythe Mesa Solar II project involved the construction of a utility-scale solar energy facility. Dr. McGrath scheduled paleontological monitors, cataloged fossil discoveries, and assessed paleontological monitoring needs on private and federal lands. Dr. McGrath also drafted monitoring reports summarizing monitoring efforts for the County of Riverside and Bureau of Land Management.

Paleontologist, Southern California Edison Company – Cal City Substation 115 kV Upgrade Project, Kern & San Bernardino Counties

The Cal City Substation 115 kV Upgrade project analyzes several proposed routes for new and upgraded utility lines near California City, California. Dr. McGrath led a field survey and was the primary author of the resulting Paleontological Resources Technical Report for the Bureau of Land Management and California Public Utilities Commission. He also reviewed the Paleontological Resources Mitigation and Monitoring Program.

Principal Investigator, LPA Design Studios – Campus Pointe Master Plan Entitlements, San Diego County

Dr. McGrath serves as Principal Investigator for this project involving the construction of a commercial development in San Diego, California. Dr. McGrath is responsible for ensuring compliance with City of San Diego regulations for paleontological resources.

Assistant Project Manager/Field Monitor, Patch Services, LLC – Henrietta BESS Compliance Phase, Kings County

Dr. McGrath drafted the Paleontological Resources Mitigation Plan in accordance with California Energy Commission standards for the construction of a Battery Energy Storage System (BESS) near Lemoore, California. He also served as a paleontological monitor for a portion of the construction phase.

Subject Matter Expert, Southern California Gas Company – Pipeline Safety Enhancement Plan, Various Counties/Cities, California

Dr. McGrath has drafted numerous paleontological resources sections of Detailed Environmental Reports for the Pipeline Safety Enhancement Program, which involves the testing and maintenance of Southern California Gas Company pipelines throughout southern California. This program involves projects that cross numerous municipal, state, and federal jurisdictions.

Assistant Project Manager, Southern California Edison Company – Lugo-Victorville Remedial Action Scheme, San Bernardino County, California and Nye County, Nevada

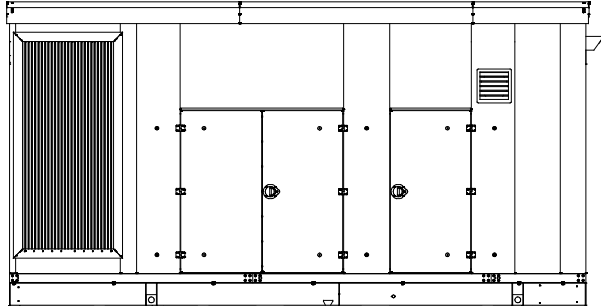
Dr. McGrath was responsible for revising existing Paleontological Resources Technical Reports, reviewing Preliminary Environmental Assessments, and drafting Paleontological Resources Mitigation and Monitoring Programs, for this large-scale utility line installation project. This project was required to comply with County, State, Bureau of Land Management, and National Park Service regulations.



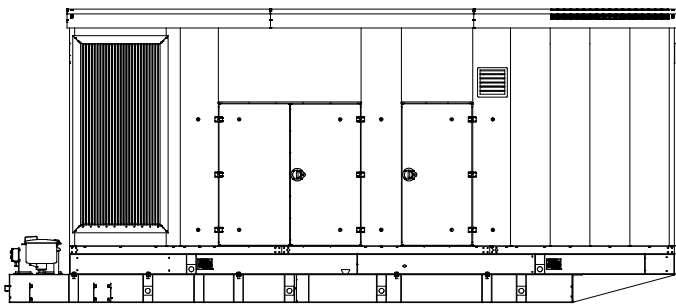
Appendix C

Generator Noise Specifications

Sound Enclosure and Subbase Fuel Tank Package



Level 1 Sound Enclosure with Lift Base



Level 2 Sound Enclosure with Subbase Fuel Tank
(shown with optional spill containment)

Enclosure and Subbase Fuel Tank Combinations

Four enclosure configurations are available with the subbase fuel tanks:

- Sound Enclosure Level 1
- Sound Enclosure Level 1, AQMD Ready
- Sound Enclosure Level 2
- Sound Enclosure Level 2, AQMD Ready

Available Approvals and Listings

- UL 2200 Listing
- UL142 Listing (fuel tanks)
- CSA Approval
- IBC Seismic Certification
- California OSHPD Approval (KD800- KD1750 models)
- cUL Listing (fuel tanks only)
- Hurricane Rated Enclosure - Available on aluminum Sound Level 2 enclosures, KD800- KD1750 models (Impact rated for Large Missile Level E and Wind load rated per Florida Building Code, tested to TAS201- 94, TAS202- 94 and TAS203- 94 standards)

NOTE: Some models may have limited third-party approvals; see your local distributor for details.

Applicable to the following models:
KD800 - KD2500 (includes KD1250-A,
KD1250-4, KD2500-4)

Sound Level 1 Enclosure Standard Features

- Internal silencers with flexible exhaust connectors and exhaust elbows.
- Mounts to lift base and optional subbase fuel tank.
- Aluminum construction with six large, hinged, removable doors for easy maintenance.
- Fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Lockable, flush-mounted door latches.
- Air inlet louvers to reduce rain and snow entry.
- Sloped roof to reduce the buildup of moisture and debris.
- Acoustic insulation that meets UL 94 HF1 flammability classification.
- Sound level 1 enclosure is designed to 150 mph (241 kph) wind load rating.
- Sound level 1 enclosure uses internal silencers, acoustic insulation and acoustic-lined air inlet hoods.

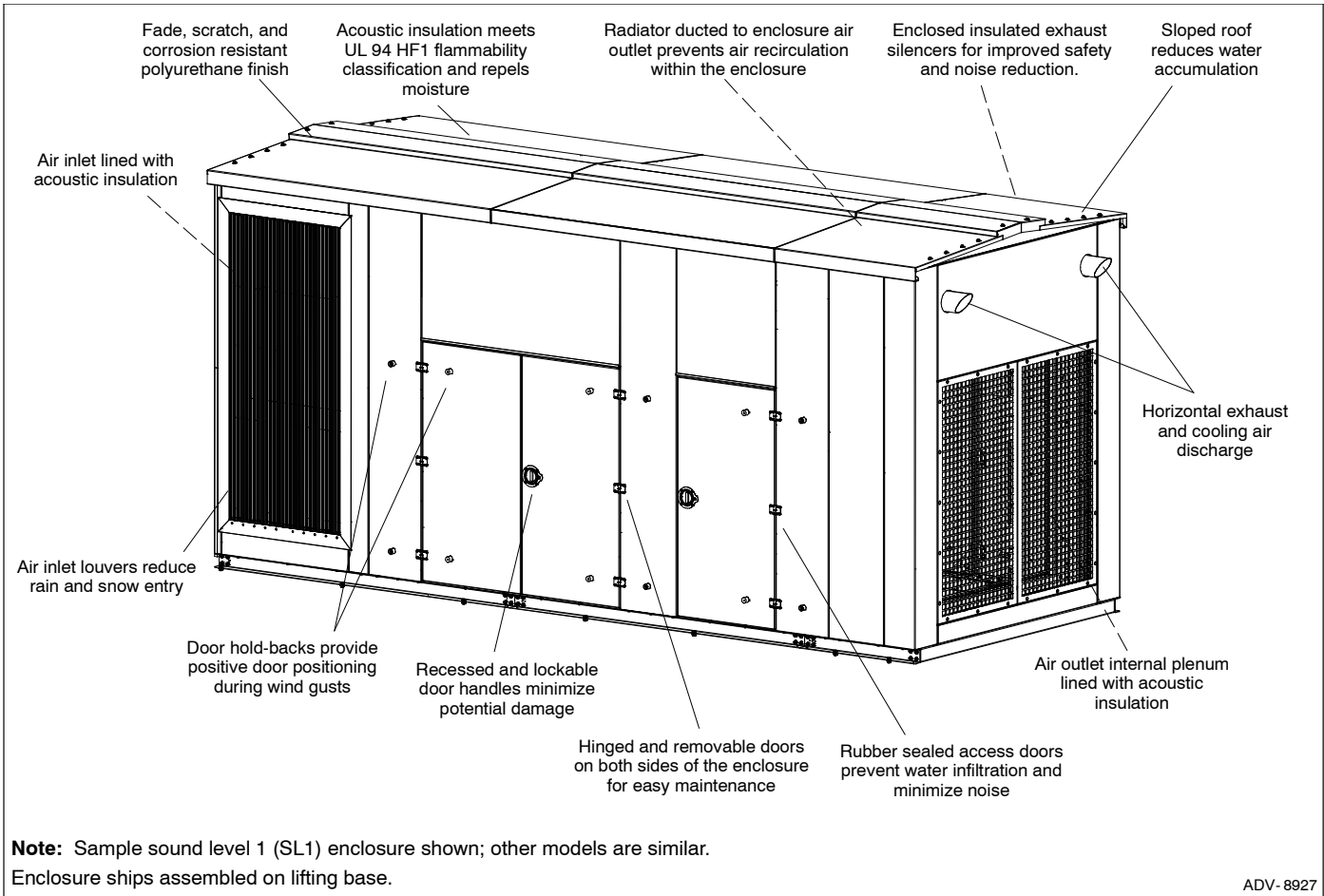
Sound Level 2 Enclosure Standard Features

- Includes all of the sound level 1 enclosure features with the addition of up to 51 mm (2 in.) acoustic insulation material, intake sound baffles, secondary silencers, and vertical air discharge with rain caps.
- Vertical outlet hood with 90 degree angles to redirect air and reduce noise.
- Sound level 2 enclosure is certified to 186 mph (299 kph) wind load rating for KD800- 2500 models.

Subbase Fuel Tank Features

- The fuel tank has a Power Armor Plus™ textured epoxy-based rubberized coating.
- The above-ground rectangular secondary containment tank mounts directly to the generator set, below the generator set skid (subbase).
- Both the inner and outer tanks have UL-listed emergency relief vents.
- Flexible fuel lines are provided with subbase fuel tank selection.
- The containment tank's construction protects against fuel leaks or ruptures. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- The above ground secondary containment subbase fuel tank meets UL 142 requirements.
- State tanks with varying capacities are available. Florida Dept. of Environmental Protection (FDEP) File No. EQ-634 approved.

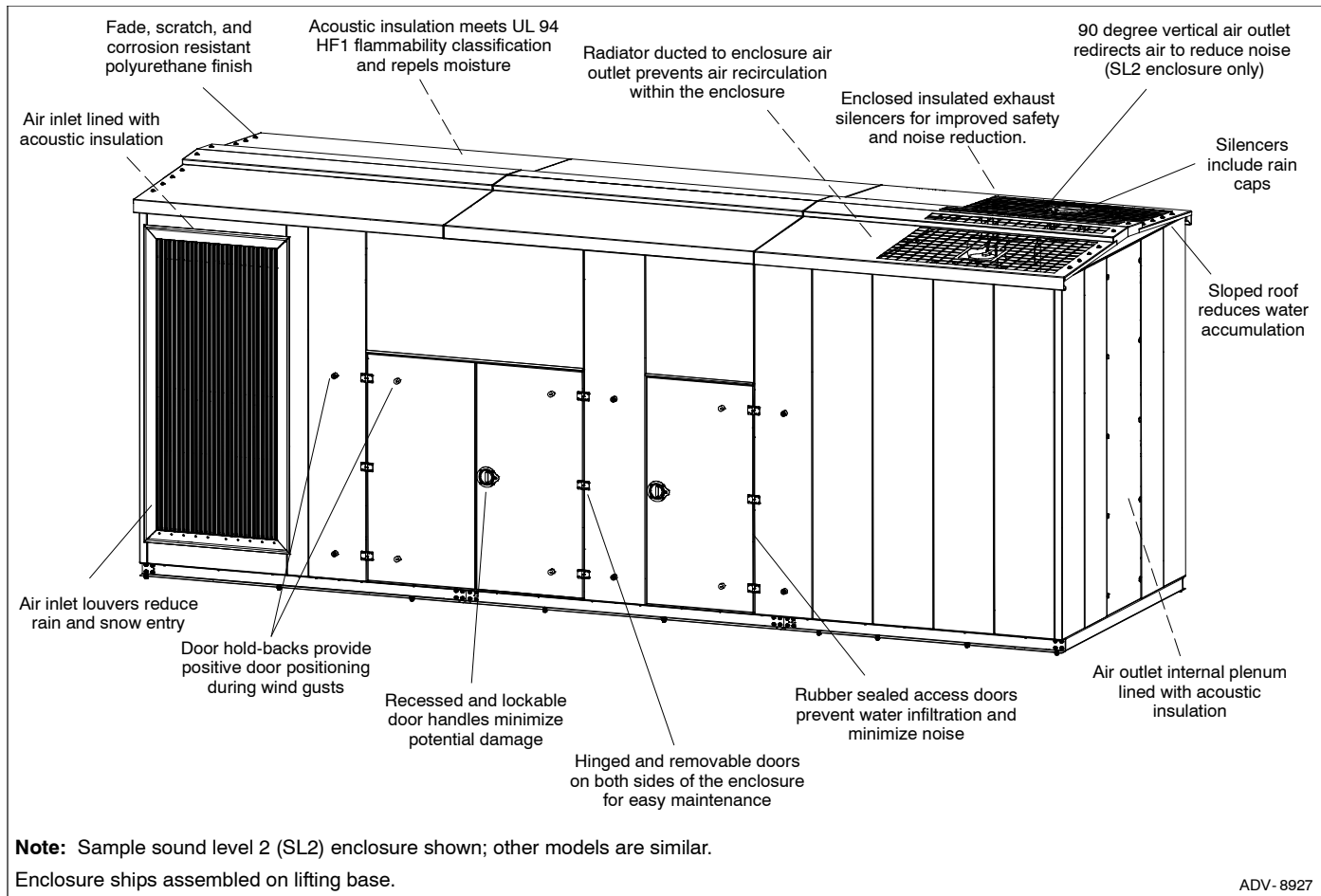
Aluminum Sound Enclosures



Level 1 Sound Enclosure Features

- Heavy-duty formed panels, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
- Polyurethane enamel paint. Superior finish, durability, and appearance.
- The enclosure has a sloped roof to reduce the buildup of moisture and debris.
- Internal exhaust silencers offering maximum component life and operator safety.
- **NOTE:** Installing an additional length of exhaust tail pipe may increase backpressure levels. Please refer to the generator set spec sheet for the maximum backpressure value.
- Service access. Multiple personnel doors for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Bolted panels facilitate service, future modification upgrades, or field replacement.
- Cooling/combustion air intake. Fixed air intake louvers.
- Sound-attenuating design using critical silencers. Acoustic insulation UL 94 HF1 listed for flame resistance.
- Horizontal air discharge. Sound level 1 (SL1) enclosures use a horizontal design that directs exhaust and cooling air out the end of the enclosure.

Aluminum Sound Enclosures

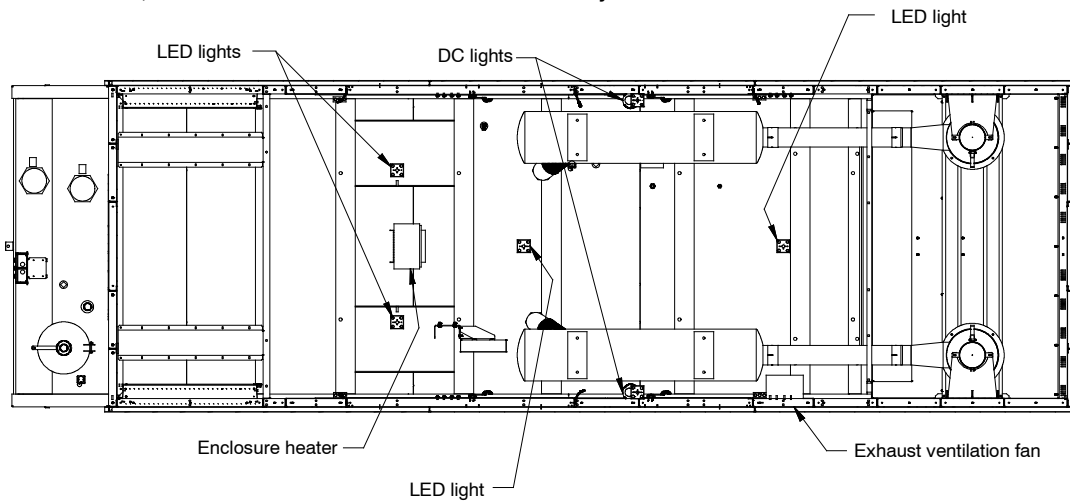


Level 2 Sound Enclosure Features

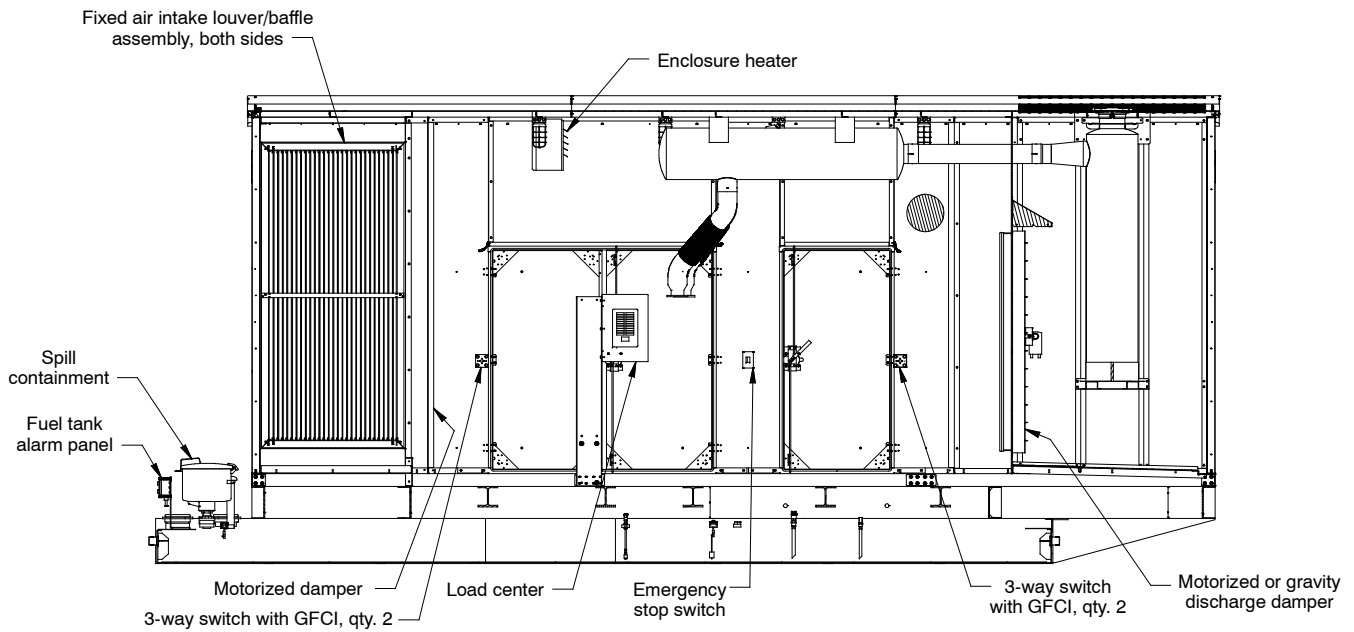
- Heavy-duty formed panels, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
- Polyurethane enamel paint. Superior finish, durability, and appearance.
- The enclosure has a sloped roof to reduce the buildup of moisture and debris.
- Internal exhaust silencers offering maximum component life and operator safety.
- Service access. Multiple personnel doors on both sides for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Bolted panels facilitate service, future modification upgrades, or field replacement.
- Cooling/combustion air intake. Fixed air intake louvers.
- Sound-attenuating design using additional secondary silencers and up to 51 mm (2 inches) of added acoustic insulation, UL 94 HF1 listed for flame resistance.
- Vertical air discharge. Sound level 2 (SL2) models use a vertical air discharge design that redirects exhaust and cooling air up and above the enclosure to reduce noise.

Aluminum Sound Enclosure Options

Top view of SL2 enclosure, shown with roof removed for illustration only:



Side view of SL2 enclosure, shown with side panels removed for illustration only:

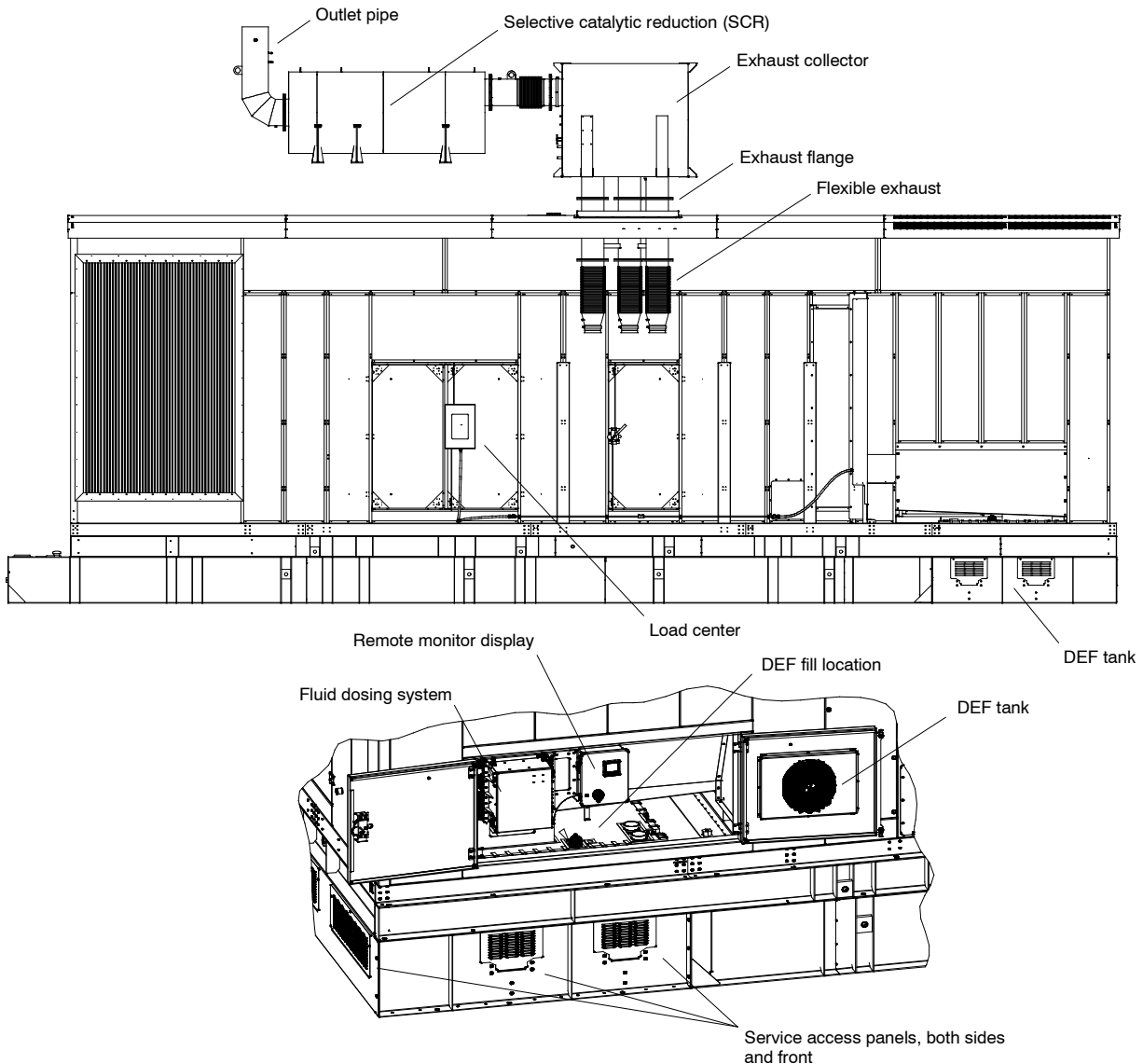


Note: Sample sound level 2 (SL2) enclosure shown; other models are similar.

ADV-8919-5

Tier 4 Aluminum Sound Enclosure

KD2500-4, Side view of SL2 enclosure, shown with side panels removed for illustration only:



Note: Sample sound level 2 (SL2) enclosure shown; other models are similar.

ADV-9179-2

Tier 4, Level 2 Sound Enclosure Features

- Available on KD1250-4 and KD2500-4
- Tier 4 options only available with sound level 2 enclosures.
- Includes all of the sound level 1 and 2 enclosure features with the addition of DEF tank, SCR, and exhaust collector.
- Remote monitor display
- Locates DEF tanks and lines
- Correctly sizes DEF and diesel tanks
- Service box for control and filter mounting
- Platforms not included
- Diesel fuel state tank is standard
 - KD1250-4
 - State tank, 5863 L (1549 gal.) or 11205 L (2960 gal.)
 - DEF tank capacity,
 - * 620 L (164 gal.) with 5863 L (1549 gal.) state tank
 - * 1241 L (328 gal.) with 11205 L (2960 gal.) state tank
 - KD2500-4
 - State tank, 14130 L (3733 gal.)
 - DEF tank capacity, 1241 L (328 gal.)

Aluminum Sound Enclosure Options

Basic Electrical Package (BEP)

Distribution Panel/Load Center. Prewired AC power distribution of all factory-installed features including block heater, two GFCI-protected internal 120-volt service receptacles, internal lighting, and commercial grade wall switches. Single-phase or three-phase load center powered by building source power and protected by a main circuit breaker, rated for 100, 125, or 200 amps as noted, with capacity and circuit positions for future expansion. AC power distribution installed in accordance with NEC and all wiring within EMT thin wall conduit. LED AC lights located within UL-listed fixtures designed for wet locations.

- BEP, single-phase, 120/208, 60 Hz or 120/240 VAC, 60 Hz. Includes 100 amp electrical panel, two 3-way switches, four LED lights, and two GFCI receptacles. *
- BEP, three-phase, 120/208, 60 Hz or 120/240VAC, 60 Hz. Includes 125 amp electrical panel, two 3-way switches, four LED lights, and two GFCI receptacles.
- BEP, 200 amp, single-phase, 120/208, 60 Hz or 120/240 VAC, 60 Hz. Includes 200 amp electrical panel, two 3-way switches, four LED lights, and two GFCI receptacles. *
- BEP, 200 amp, three-phase, 120/208, 60 Hz or 120/240VAC, 60 Hz. Includes 200 amp electrical panel, two 3-way switches, four LED lights, and two GFCI receptacles.

DC Light Package

DC Light Package (DLP). Prewired, internal DC light package offering an economical alternative light source within the enclosure, as a complement to the BEP or a source of light when AC power is not available. Battery drain limited with fuse protection and controlled through a 0- 60 minute, spring-wound, no-hold timer. Available in LED.

Electrical Accessories

Wiring Kits. Electrical wiring for accessories. BEP required.

- Alternator heater wiring (KD1250- 2500 only)
- Block heater wiring, single-phase *
- Block heater wiring, three-phase
- Battery charger wiring
- Wire DEF tank heater †
- Wire power supply (Tier 4 system heaters) §

Emergency Stop Switch

- Generator set emergency stop switch, qty. 1.

NOTE: Not available with hurricane rated enclosures.

* Not available options with Tier 4 generator set enclosures.

† Only available on enclosed Tier 4 generator set enclosures.

§ Only available on open or enclosed Tier 4 generator sets.

Stepdown Transformers. 100 amp BEP required, 60 Hz only. KD1250- 2500 only. *

- Single-phase, 120/240 V *
- Three-phase, 120/208 V *

Disconnect Switches. Disconnect switch for stepdown transformer. 60 Hz only. *

- Single-phase *
- Three-phase *

Enclosure Heater

Heater, 3.7/5 kW Ceiling Mounted. Electrical utility heater prewired to load center internal to enclosure. Rated at 17100 Btu. Includes adjustable louvers offering down flow and horizontal air tuning, built-in thermostat with automatic fan delay controls.

- Heater kit with 1 heater, single/three phase, 208/240 VAC, 60 Hz. BEP required.
- Heater kit with 2 heaters, for KD1250- 2500 only, single/three phase, 208/240 VAC, 60 Hz. 200 amp BEP required.

Exhaust Fan

- Exhaust Ventilation Fan. Mounted inside the enclosure. BEP required.

Motorized Inlet Louvers. 60 Hz only; BEP required.

- Aluminum construction
- Insulated aluminum construction
- Galvanized construction

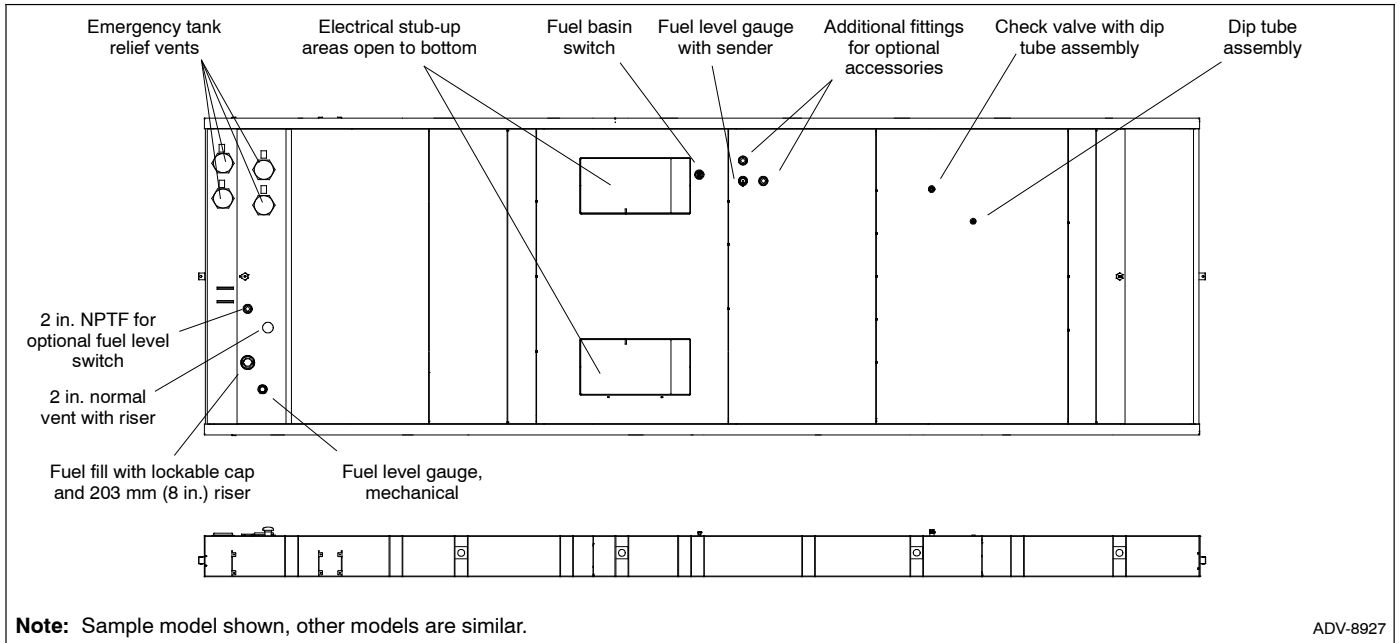
Motorized Outlet Louvers. 60 Hz only; BEP required.

- Aluminum construction
- Insulated aluminum construction
- Galvanized construction

Gravity Air Outlet

- Aluminum construction

Subbase Fuel Tank



Subbase Fuel Tank Standard Features

- Extended operation. State tanks with various capacities for multiple hour requirements.
- UL listed. Secondary containment generator set base tank meeting UL 142 requirements.
- NFPA compliant. Designed to comply with the installation standards of NFPA 30 and NFPA 37.
- Integral external lift lugs. Enables crane with spreader-bar lifting of the complete package (empty tank, mounted generator set, and enclosure) to ensure safety.
- Emergency pressure relief vents. Vents ensure adequate venting of inner and outer tank under extreme pressure and/or emergency conditions.
- Normal vent with cap. Vent is raised above lockable fuel fill.
- Fuel level gauge with sender.
- Mechanical fuel level gauge.
- Leak detection switch. Annunciates a contained primary tank fuel leak condition at generator set control.
- Electrical stub-up area open to bottom.
- Additional 2 in. NPT fittings for optional accessories.

Subbase Fuel Tank Options

Bottom Clearance

- I-beams, provide 102 mm (4 in.) of ground clearance (not available with OSHPD or IBC seismic certification)

Emergency Vent Options

- 127 mm (5 in.), IBC
- 152.4 mm (6 in.), IBC KD800- 1000 12 hr. tank only

Fuel in Basin Options

- Fuel in basin switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved
- 100% engine fluid containment

Fuel Supply Options

- Fire safety valve (installed on fuel supply line)
- Ball valve (installed on fuel supply line)

Fuel Fill Options

- Fill pipe extension to within 152 mm (6 in.) of bottom of fuel tank
- 18.9 L (5 gallon) spill containment
- 18.9 L (5 gallon) spill containment with 95% shutoff
- 18.9 L (5 gallon) spill containment fill to within 152 mm (6 in.) of bottom of fuel tank
- 18.9 L (5 gallon) spill containment, OSHPD/IBC
- 18.9 L (5 gallon) spill containment with 95% shutoff, OSHPD/IBC
- 28.4 L (7.5 gallon) spill containment, Florida Dept. of Environmental Protection (FDEP) File No. EQ-345 approved
- 28.4 L (7.5 gallon) spill containment with 95% shutoff, Florida Dept. of Environmental Protection (FDEP) File No. EQ-345/EQ-257 approved

High Fuel Level Switch

- High fuel level switch, 24V
- High fuel level switch, 24V, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved
- Fuel tank panel, 3 alarm, 24 V
- Fuel tank panel, 3 alarm, 24 V, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Normal Vent Options

- 3.7 m (12 ft.) above grade (without spill containment)
- 3.7 m (12 ft.) above grade (with spill containment)

Freestanding Stairs

- Stairs only, single door access
- Stairs with platform, single door access
- Stairs with catwalk, 2 door access, door length only
- Stairs with catwalk, 2 door access, full length of enclosure

Tank Marking Options

- Decal, Combustible Liquids - Keep Fire Away (qty. 2)
- Decal, NFPA 704 identification (qty. 2)
- Decal, tank number and safe fuel fill height (qty. 2)

Enclosure and Subbase Fuel Tank Specifications

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load (nominal)	Max. Dimensions, mm (in.)			Max. Weight, † kg (lb.)	Fuel Tank Height, mm (in.)	Sound Pressure Level at 60 Hz with Full Load, dB(A) ‡
		Length	Width §	Height			

KD800 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10184 (22452)	—	90
3475 (918)	12	7309 (288)		3706 (146)	13772 (30362)	356 (14.0)	
6621 (1749)	24			3934 (155)	14252 (31421)	584 (23.0)	
10573 (2793)	48			4264 (168)	14831 (32698)	914 (36.0)	
15740 (4158)	72			9144 (360)	4366 (172)	16242 (35808)	

KD800 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	7707 (303)	2616 (103)	3350 (132)	10587 (23340)	—	75
3475 (918)	12	8434 (332)		3706 (146)	14175 (31250)	356 (14.0)	
6621 (1749)	24			3934 (155)	14655 (32309)	584 (23.0)	
10573 (2793)	48			4290 (169)	15234 (33586)	915 (36.0)	
15740 (4158)	72			9144 (360)	4366 (172)	16645 (36696)	

KD900 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10497 (23343)	—	91	
3475 (918)	12	7309 (288)		3706 (146)	14085 (31253)	356 (14.0)		
6621 (1749)	24			3934 (155)	14565 (32312)	584 (23.0)		
12969 (3426)	48			8400 (331)	4293 (169)	16348 (36243)		940 (37.0)
19381 (5120)	72			11050 (435)	4369 (172)	17527 (38840)		1016 (40.0)

KD900 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	7707 (303)	2616 (103)	3350 (132)	10900 (24231)	—	75
3475 (918)	12	8434 (332)		3706 (146)	14488 (32141)	356 (14.0)	
6621 (1749)	24			3934 (155)	14968 (33200)	584 (23.0)	
12969 (3426)	48			4290 (169)	16751 (37131)	940 (37.0)	
19381 (5120)	72			11050 (435)	4366 (172)	17930 (39728)	

KD1000 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10810 (23833)	—	92	
3475 (918)	12	7309 (288)		3706 (146)	14398 (31743)	356 (14.0)		
6621 (1749)	24			3934 (155)	14878 (32802)	584 (23.0)		
12969 (3426)	48			8400 (331)	4290 (169)	16661 (36733)		940 (37.0)
19381 (5120)	72			11050 (435)	4366 (172)	17840 (39330)		1016 (40.0)

KD1000 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	7707 (303)	2616 (103)	3353 (132)	11213 (24721)	—	76
3475 (918)	12	8434 (332)		3706 (146)	14801 (32631)	356 (14.0)	
6621 (1749)	24			3934 (155)	15281 (33690)	584 (23.0)	
12969 (3426)	48			4290 (169)	17064 (37621)	940 (37.0)	
19381 (5120)	72			11050 (435)	4366 (172)	18243 (40218)	

KD1250/1500 SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *

Lifting Base	0	8831 (348)	3033 (119)	3579 (141)	17116 (37748)	—	93
5863 (1549)	18/15	9594 (378)		3960 (156)	22326 (49234)	381 (15.0)	
9860 (2605)	30/25			4138 (163)	22808 (50296)	559 (22.0)	
11204 (2960)	34/28			4214 (166)	22973 (50661)	635 (25.0)	
19214 (5076)	58/48			11113 (438)	4468 (176)	25277 (55741)	
21985 (5808)	66/55	4570 (180)			25684 (56637)	991 (39.0)	

KD1250/1500 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	10420 (410)	3033 (119)	3579 (141)	18031 (39764)	—	79
5863 (1549)	18/15	11147 (439)		3960 (156)	23241 (51250)	381 (15.0)	
9860 (2605)	30/25			4138 (163)	23723 (52312)	559 (22.0)	
11204 (2960)	34/28			4214 (166)	23888 (52677)	635 (25.0)	
19214 (5076)	58/48			4468 (176)	26192 (57757)	889 (35.0)	
21985 (5808)	66/55	4570 (180)			26599 (58653)	991 (39.0)	

* Data in table is for reference only. Height includes enclosure, lift base, and tank (if equipped). Refer to your authorized Kohler distributor for enclosure and subbase fuel tank specification details.

† Max. weight includes the generator set (wet) with the largest alternator option, enclosure, silencers, lift base, and tank (no fuel).

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft.). Refer to TIB-114 for details. Enclosed generator set sound data for some models was not available at time of print.

§ An additional 940 mm (37 inches) of clearance on each side for opening and closing the access doors is recommended.

NOTE: If the Est. Fuel Supply Hours column shows more than one number, the numbers represent each model in that range.

Enclosure and Subbase Fuel Tank Specifications, continued

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load (nominal)	Max. Dimensions, mm (in.)			Max. Weight, † kg (lb.)	Fuel Tank Height, mm (in.)	Sound Pressure Level at 60 Hz with Full Load, dB(A) ‡
		Length	Width §	Height			

KD1250-4 SL2 Sound Enclosure with State Code Subbase Fuel Tank ◆*

5863 (1549)	17	11147 (439)	3033 (119)	4640 (183)	22507 (49619)	381 (15.0)	75
11204 (2960)	33			4894 (193)	23731 (52318)	635 (25.0)	

KD1250-A/1350 SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *

Lifting Base	0	8831 (348)	3033 (119)	3579 (141)	17116 (37748)	—	93
5863 (1549)	18/17	9594 (378)		3960 (156)	22326 (49234)	381 (15.0)	
9860 (2605)	30/29			4138 (163)	22808 (50296)	559 (22.0)	
11204 (2960)	34/32			4214 (166)	22973 (50661)	635 (25.0)	
19214 (5076)	58/56	11113 (438)		4468 (176)	25277 (55741)	889 (35.0)	
21985 (5808)	67/64			4570 (180)	25684 (56637)	991 (39.0)	

KD1250-A/1350 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	10420 (410)	3033 (119)	3579 (141)	18031 (39764)	—	76
5863 (1549)	18/17	11147 (439)		3960 (156)	23241 (51250)	381 (15.0)	
9860 (2605)	30/29			4138 (163)	23723 (52312)	559 (22.0)	
11204 (2960)	34/32			4214 (166)	23888 (52677)	635 (25.0)	
19214 (5076)	58/56			4468 (176)	26192 (57757)	889 (35.0)	
21985 (5808)	67/64			4570 (180)	26599 (58653)	991 (39.0)	

KD1600 SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *

Lifting Base	0	8831 (348)	3033 (119)	3579 (141)	17343 (38248)	—	94
5863 (1549)	14	9594 (378)		3960 (156)	22553 (49734)	381 (15.0)	
9860 (2605)	23			4138 (163)	23035 (50796)	559 (22.0)	
11204 (2960)	26			4214 (166)	23200 (51161)	635 (25.0)	
19214 (5076)	45	11113 (438)		4468 (176)	25504 (56241)	889 (35.0)	
21985 (5808)	52			4570 (180)	25911 (57137)	991 (39.0)	

KD1600 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	10420 (410)	3033 (119)	3579 (141)	18258 (40264)	—	79
5863 (1549)	14	11147 (439)		3960 (156)	23468 (51750)	381 (15.0)	
9860 (2605)	23			4138 (163)	23950 (52812)	559 (22.0)	
11204 (2960)	26			4214 (166)	24115 (53177)	635 (25.0)	
19214 (5076)	45			4468 (176)	26419 (58257)	889 (35.0)	
21985 (5808)	52			4570 (180)	26826 (59153)	991 (39.0)	

KD1750 SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *

Lifting Base	0	8831 (348)	3033 (119)	3579 (141)	17343 (38248)	—	95
5863 (1549)	13	9594 (378)		3960 (156)	22553 (49734)	381 (15.0)	
9860 (2605)	21			4138 (163)	23035 (50796)	559 (22.0)	
11204 (2960)	24			4214 (166)	23200 (51161)	635 (25.0)	
19214 (5076)	42	11113 (438)		4468 (176)	25504 (56241)	889 (35.0)	
21985 (5808)	48			4570 (180)	25911 (57137)	991 (39.0)	

KD1750 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *

Lifting Base	0	10420 (410)	3033 (119)	3579 (141)	18258 (40264)	—	79
5863 (1549)	13	11147 (439)		3960 (156)	23468 (51750)	381 (15.0)	
9860 (2605)	21			4138 (163)	23950 (52812)	559 (22.0)	
11204 (2960)	24			4214 (166)	24115 (53177)	635 (25.0)	
19214 (5076)	42			4468 (176)	26419 (58257)	889 (35.0)	
21985 (5808)	48			4570 (180)	26826 (59153)	991 (39.0)	

* Data in table is for reference only. Height includes enclosure, lift base, and tank (if equipped). Refer to your authorized Kohler distributor for enclosure and subbase fuel tank specification details.

|| Tier 4 generator enclosure height includes the fuel tank and enclosure up to the exhaust flange. The height does not include the SCR, or the SCR inlet and outlet pipes.

** Tier 4 generator enclosure weight includes the DEF tank but does not include the SCR or the SCR inlet and outlet pipes.

† Max. weight includes the generator set (wet) with the largest alternator option, enclosure, silencers, lift base, and tank (no fuel).

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft.). Refer to TIB-114 for details. Enclosed generator set sound data for some models was not available at time of print.

§ An additional 940 mm (37 inches) of clearance on each side for opening and closing the access doors is recommended.

NOTE: If the Est. Fuel Supply Hours column shows more than one number, the numbers represent each model in that range.

Enclosure and Subbase Fuel Tank Specifications, continued

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load (nominal)	Max. Dimensions, mm (in.)			Max. Weight, † kg (lb.)	Fuel Tank Height, mm (in.)	Sound Pressure Level at 60 Hz with Full Load, dB(A) ‡
		Length	Width §	Height			
KD2000/2250/2500 (KD62V12 Engine) SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *							
Lifting Base	0	10774 (424)	3488 (137)	4141 (163)	33073 (72909)	—	90
8577 (2266)	15/14/13	11465 (451)		4522 (178)	40485 (89252)	381 (15)	
14130 (3733)	25/22/22			4700 (185)	41216 (90861)	559 (22)	
16451 (4346)	29/26/25			4776 (188)	41497 (91483)	635 (25)	
KD2000/2250/2500 (KD62V12 Engine) SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *							
Lifting Base	0	12766 (503)	3488 (137)	4141 (163)	35121 (77426)	—	78
8577 (2266)	15/14/13	13491 (531)		4522 (178)	42533 (93766)	381 (15)	
14130 (3733)	25/22/22			4700 (185)	43264 (95378)	559 (22)	
16451 (4346)	29/26/25			4776 (188)	43545 (95997)	635 (25)	
KD2000/2250/2500 (KD62V12A Engine) SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *							
Lifting Base	0	10774 (424)	3488 (137)	4141 (163)	33073 (72909)	—	90
8577 (2266)	16/14/13	11465 (451)		4522 (178)	40485 (89252)	381 (15)	
14130 (3733)	26/23/22			4700 (185)	41216 (90861)	559 (22)	
16451 (4346)	31/27/25			4776 (188)	41497 (91483)	635 (25)	
KD2000/2250/2500 (KD62V12A Engine) SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *							
Lifting Base	0	12766 (503)	3488 (137)	4141 (163)	35121 (77426)	—	78
8577 (2266)	16/14/13	13491 (531)		4522 (178)	42533 (93766)	381 (15)	
14130 (3733)	26/23/22			4700 (185)	43264 (95378)	559 (22)	
16451 (4346)	31/27/25			4776 (188)	43545 (95997)	635 (25)	
KD2500-4 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank ▲**							
14130 (3733)	21	13491 (531)	3488 (137)	4907 (193)	43583 (96084)	559 (22)	78

* Data in table is for reference only. Height includes enclosure, lift base, and tank (if equipped). Refer to your authorized Kohler distributor for enclosure and sub-base fuel tank specification details.

▲ Tier 4 generator enclosure height includes the lift base, tank, and enclosure up to the exhaust flange. The height does not include the exhaust collector, SCR, or the SCR inlet and outlet pipes.

⚙ Tier 4 generator enclosure weight includes the DEF tank but does not include the exhaust collector, SCR, or SCR inlet and outlet pipes.

† Max. weight includes the generator set (wet) with the largest alternator option, enclosure, silencers, lift base, and tank (no fuel). for details. Enclosed generator set sound data for some models was not available at time of print.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft.). Refer to TIB-114

§ An additional 940 mm (37 inches) of clearance on each side for opening and closing the access doors is recommended.

NOTE: If the Est. Fuel Supply Hours column shows more than one number, the numbers represent each model in that range.

Notes



KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the
US and Canada, phone 1-800-544-2444
KOHLERPower.com

DISTRIBUTED BY:

Availability is subject to change without notice. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler® generator set distributor for availability.

© 2016 Kohler Co. All rights reserved.