



Environmental Permitting Strategy

Technical Memorandum #11

Paradise Sewer Project

June 9, 2022



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1. Introduction

The Town of Paradise is implementing the proposed Paradise Sewer Project (project), which involves identifying and implementing a long-term solution for collection, treatment, and reuse/disposal of its wastewater. HDR is under contract to assist with the first two phases of the project. Phase 1 included final selection of a wastewater alternative, and Phase 2 covers the preparation of an Environmental Impact Report analyzing the selected alternative. This technical memorandum is part of the Phase 2 effort and provides details regarding regulatory permits and authorizations that may be triggered by impacts on aquatic resources and/or special-status species habitats that could result from implementation of the proposed project. It is anticipated that these permits will be obtained during final design, the next phase of the project.

The following resource agencies and regulatory triggers are evaluated in this technical memorandum:

- U.S. Army Corps of Engineers (Corps) Clean Water Act Section 404
- Central Valley Regional Water Quality Control Board (Water Board) Clean Water Act Section 401
- U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Endangered Species Act Section 7
- California Department of Fish and Wildlife (CDFW) Fish and Game Code Section 1602 (Lake and Streambed Alteration Agreement) and Section 2081 (California Endangered Species Act Incidental Take Permit)

1.1 Proposed Project Summary

The proposed project would consist of three primary components: the core collection system, extended collection system, and export pipeline system. The infrastructure to serve Paradise's sewer service area is called the core collection system and would consist of force mains, gravity trunk lines, and up to 28 pump stations. The core collection system pipelines would generally be buried within existing, paved Town of Paradise rights-of-way, with some crossings of private parcels. The core collection system would transition to the export pipeline system.

The proposed export pipeline system would start at the southern end of the core collection system as a gravity sewer line, and would continue southwest 18.2 miles to Chico for connection to the Chico Water Pollution Control Plant. Most of the export pipeline would be constructed within Butte County road rights-of-way, with the exception of a 1.1-mile segment between Skyway and Highway 99 that would cross private land. Open cut methods would be used to construct most of the export pipeline system, except for five trenchless crossings of three creeks, Highway 99 and the Union Pacific Railroad.

1.2 Extended Collection System

The extended collection system is currently defined at a conceptual level; therefore, the location and extent of necessary buried gravity and pressure lines, maintenance holes, and pump stations are not available at this time. As such, regulatory permits and authorizations that may be required for the construction of the extended collection system cannot be defined at this time and will be evaluated

under a separate document once this component of the proposed project is further identified.

2. Regulatory Permits and Authorizations

2.1 Core Collection System

The core collection system would generally be constructed within existing paved rights-of-way and previously converted and disturbed native habitats; therefore, it is assumed that no impacts on aquatic resources and/or special-status species habitats regulated by the Corps, Water Board, USFWS, NMFS, and/or CDFW would be incurred by this proposed project component. As such, no regulatory permits from the aforementioned agencies would be required prior to construct the core collection system. It is recommended, however, that the 60 percent design be evaluated by a qualified biologist to confirm the absence of impacts on aquatic resources and/or special-status species habitats that may require regulatory permits and/or authorizations.

2.2 Export Pipeline System

Most of the proposed export pipeline would also be installed via open cut methods in existing paved rights-of-way, except for the segment between Skyway and Highway 99. The export pipeline segment between Skyway and Highway 99 would likely result in direct and indirect impacts on vernal pools¹, as well as encroach within suitable habitat for both Swainson's hawk (*Buteo swainsoni*) and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). The action of open cutting through vernal pools would trigger a Corps 404 permit, Water Board 401 Water Quality Certification, and USFWS Section 7 consultation. The Corps 404 permit and Water Board 401 Water Quality Certification will be required for the discharge of dredged and fill materials into waters of the U.S. The USFWS Section 7 consultation will be required for direct and indirect impacts on federally listed vernal pool species such as vernal pool fairy shrimp (*Branchinecta lynchei*), and valley elderberry longhorn beetle should ground disturbance activities occur within 165 feet of an elderberry shrub.

Avoidance of direct impacts on aquatic resources, including vernal pools, while still performing ground disturbance activities within 250 feet of vernal pools and/or 165 feet of elderberry shrubs would still trigger the need to consult with USFWS per the Endangered Species Act. However, avoidance of impacts on aquatic resources would remove the need to obtain a Corps 404 permit and Water Board 401 Water Quality Certification. The absence of a Corps 404 permitting trigger would mean that consultation with USFWS would need to be completed through the Section 10 process. Section 10 has no statutory timeframes within which USFWS is required to render a decision, unlike Section 7; therefore, this process is unpredictable and lengthy.

The HDD crossings of Butte Creek, Comanche Creek, and Little Chico Creek would trigger the need for a CDFW 1602 Lake and Streambed Alteration Agreement for potential adverse impacts that may result in the event of a frac-out during the drilling operation. Central Valley steelhead (*Onchorhynchus mykiss irideus*) and Central Valley spring-run Chinook salmon (*Onchorhynchus tshawytscha*) both have the potential to occur in Butte Creek; therefore, an HDD crossing of this creek would also trigger the need for consultation with NMFS for potential direct and indirect impacts on federally listed

¹ Please refer to the Aquatic Resources and Vegetation Communities mapbook provided in Appendix E of the Environmental Impact Report for the location of annual grassland/vernal pool habitats.



salmonids in the event of a frac-out. Additionally, depending on the location and extent of disturbance associated with the HDD entry and exit locations, encroachment within 165 feet of elderberry shrubs may occur, thus triggering consultation with USFWS. The Corps will not require 404 coverage for HDD activities on Butte Creek, Comanche Creek, or Little Chico Creek; therefore, if aquatic resources impacts are fully avoided, consultation with USFWS and NMFS would need to be completed through the Section 10 process described above.

If a Water Board 401 Water Quality Certification is required for discharge of dredge and fill material into aquatic resources due to open cut activities, then they will likely include potential water quality impacts resulting from frac-out in the 401 Water Quality Certification issued for the export pipeline. If a Corps 404 permit and corresponding Water Board 401 Water Quality Certification are not required, then a Waste Discharge Requirement may be necessary from the Water Board prior to construction.

Swainson's hawks were documented in the vicinity of the proposed project during surveys conducted by HDR biologists in 2021². If ground disturbance activities would occur within 0.25 miles of an active Swainson's hawk nest³, then an incidental take permit from CDFW would also be required.

As design advances to the 60 percent level, if the export pipeline footprint deviates in other locations from the paved right-of-way, impacts on aquatic resources and special-status species would need to be evaluated by a qualified biologist. Changes in impacts on aquatic resources and special-status species habitats would likely alter the permit requirements and timelines.

3. Permit Summary

The core collection system is not anticipated to trigger the need for permits or authorizations from the Corps, Water Board, USFWS, NMFS, and/or CDFW. However, the export pipeline will require the permits shown in Table 1. These permits would require completion of 60-percent design documents prior to submittal of applications to the agencies. Therefore, the durations shown in the table begin at the point in time that the 60-percent design is completed. However, it is recommended that agency coordination begin after the 30-percent design milestone is achieved to get early feedback on the proposed project from the Corps, Water Board, USFWS, NMFS, and/or CDFW to facilitate development of permit application packages customized to the needs of each agency.

² Please refer to the September 30, 2021, *Swainson's Hawk Survey and Elderberry Shrub Mapping Report Technical Memorandum* prepared by HDR's Dan Williams for additional details on Swainson's hawk nest locations and activity in the vicinity of the export pipeline system.

³ Swainson's hawk nesting season typically runs from March through July.



Table 1. Permits Required for the Export Pipeline System

Issuing Agency	Permit	Time Required to Obtain ^a
U.S. Army Corps of Engineers (Corps)	Clean Water Act Section 404 Permit	10 - 12 months <i>Longer time is due to dependency on completion of USFWS and NMFS Section 7 consultation processes.</i>
Central Valley Regional Water Quality Control Board (Water Board)	Clean Water Act Section 401 – Water Quality Certification	8 – 10 months
U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act Section 7 – Biological Opinion	8 – 10 months
National Marine Fisheries Service (NMFS)	Endangered Species Act Section 7 – Letter of Concurrence	4 – 5 months <i>Anticipating NMFS will concur with a “not likely to adversely affect” determination, thus triggering an informal consultation process.</i>
California Department of Fish and Wildlife (CDFW)	Fish & Game Code Section 1602 – Lake and Streambed Alteration Agreement	8 – 10 months
California Department of Fish and Wildlife (CDFW)	Fish & Game Code Section 2081 – California Endangered Species Act Incidental Take Permit	8 – 12 months <i>This permit may be avoided if construction can be scheduled to avoid working within 0.25 miles of an active Swainson’s hawk nest.</i>

a. Measured from the completion of 60-percent design.