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STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:	)	Docket No. 15-AFC-01
	)	
APPLICATION FOR CERTIFICATION	)	
OF THE PUENTE POWER PROJECT	)	

Exhibit No. 4023

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Application for Certification
(15-AFC-01)

Puente Power Project (P3)
Oxnard, CA

Responses to CEC Data Requests Set 4 (77-107)

October 2016

Submitted to:
The California Energy Commission

Prepared by:

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN RESPONSES

ACOE	United States Army Corps of Engineers
AFC	Application for Certification
CAISO	California Independent System Operator
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CFR	United States Code of Federal Regulations
CNDDB	California Natural Diversity Database
CWA	Clean Water Act
kV	kilovolt
LARWQCB	Los Angeles Regional Water Quality Control Board
LGIA	Large Generator Interconnection Agreement
MGS	Mandalay Generating Station
MW	megawatt
NPDES	National Pollutant Discharge Elimination System
NRG	NRG Energy Center Oxnard LLC or Applicant
NWP	nationwide permit
P3	Puente Power Project
PAA	Project Areas of Analysis
PSA	Preliminary Staff Assessment
RHA	Rivers and Harbors Act of 1899
SCE	Southern California Edison
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WRC	Water Resource Control

Technical Area: Biological Resources
Author: Carol Watson

BACKGROUND:

The Project Enhancement: Outfall Removal and Beach Restoration (TN213802) contains unclear information regarding the jurisdictional status and nature of the potential waters (Edison Canal and the outfall structure) on the project site. As part of the project reconfiguration, process wastewater and stormwater would be comingled and conveyed to the Edison Canal via an 18-inch pipe, or transfer pipe. The transfer pipe would discharge into a small sump near the Edison Canal, before discharging into the Edison Canal. The applicant further states that additional riprap may be necessary along the banks of the Edison Canal, to prevent the discharge from eroding the bank; yet Section 3.2.2.1 (page 3.7) states that no impacts to the canal are expected because work activities would be confined to upland, developed areas. Section 3.2.1.1 (page 3.4) states that the Edison Canal may be a non-wetland water of the U.S., Waters of the State, and/or a California Department of Fish and Wildlife (CDFW)-jurisdictional channel. Discharge of dredge and fill material to waters of the U.S. are regulated by the U.S. Army Corps of Engineers (ACOE) via the Clean Water Act, Section 404, and require a permit. Impacts to CDFW-jurisdictional channels may require a Section 1600 Lake and Streambed Alteration Agreement permit. The Energy Commission staff needs more information regarding these issues to complete its analysis.

DATA REQUEST

77. Please further describe the amount of riprap to be placed in the Edison Canal, and describe potential impacts to wildlife and habitat.

RESPONSE

The discharge point for wastewater from the Puente Power Project (P3) and Mandalay Generating Station (MGS) Unit 3, and for stormwater from the MGS property (including the P3 site), will be either an existing concrete structure or a new culvert pipe. The decision about which alternative to implement will be made during final design. It may be necessary to place a limited amount of additional riprap to support the new discharge structure. If the culvert method is used for the discharge, and if additional erosion control is needed, energy dissipation measures (i.e., flow diffuser at end of pipe) could be installed in lieu of adding riprap. In any case, no new structures or fill, including riprap, will be placed below the high tide line or mean high water line.

As described in the Project Enhancement – Outfall Removal and Beach Restoration, the banks of the Edison Canal are already covered in riprap in the vicinity of the proposed discharge. Nonnative invasive iceplant (*Carpobrotus edulis*), which provides very limited habitat, has colonized the bank in this area.

Given the existing conditions in the vicinity of the proposed discharge and the nature, extent, and location of any new structures or fill, no significant impacts to biological resources are expected as a result of installation of the new discharge point.

DATA REQUEST

78. Please contact CDFW and complete a Notification of Lake or Streambed Alteration, if appropriate.

RESPONSE

Neither the Edison Canal nor the intermittent channel across the beach between the existing outfall structure and the ocean constitute a river, stream, or lake subject to the lake and streambed alteration program set forth in California Fish and Game Code Sections 1600-1616. Therefore, a Notification of Lake or Streambed Alteration is not required.

The Applicant contacted Ms. Mary Meyers of California Department of Fish and Wildlife (CDFW) on October 27, 2016. Applicant informed Ms. Meyers that, based on its review of the applicability of California Fish and Game Code Sections 1600-1616 to the proposed project refinements, no Notification of Lake or Streambed Alteration nor Lake or Streambed Alteration Agreement would be required for either removal of the existing outfall or installation of the new discharge. The tidal channel, which has been created on the beach as a result of the intermittent discharge of MGS wastewater and stormwater and which will be eliminated with implementation of the project, does not constitute a river, stream or lake subject to the lake and streambed alteration program. The Edison Canal, which is also a tidal water, would not be altered in any way as a result of installation of the new discharge point. Therefore, the Applicant has concluded that the outfall removal and the discharge to the canal are not subject to the requirement to obtain a Lake or Streambed Alteration Agreement. Ms. Meyers indicated that she would discuss the project further with management in her regional office.

Contact information is as follows:

California Department of Fish and Wildlife
Mary Meyers
Mary.Meyers@wildlife.ca.gov
Senior Environmental Scientist, South Coast Region
(805) 640-8019

DATA REQUEST

79. Please provide the contact information and reports of conversation for your contacts with CDFW.

RESPONSE

Please see the response to Data Request 78.

DATA REQUEST

80. Please contact ACOE to determine if the project requires a Section 404 permit. Provide the contact information and reports of conversation.

RESPONSE

Clean Water Act Section 404

Section 404 of the federal Clean Water Act (CWA Section 404) establishes a program to regulate, among other things, the discharge of dredged or fill material into waters of the United States, including wetlands.[1] Activities in waters of the United States regulated under CWA Section 404 include fill for development, such as placement of fill necessary for construction of outfall or discharge structures.[2] CWA Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States.[3] Regulated activities may be authorized by individual permits issued by the United States Army Corps of Engineers (ACOE). In addition, discharges that will have only minimal adverse effects may be authorized by general permits issued by the ACOE, which are referred to as nationwide permits (NWPs).

Waters of the United States include, among other water bodies, all waters that are subject to the ebb and flow of the tide,[4] the territorial seas,[5] and all tributaries[6] and waters adjacent[7] thereto. For tidal waters of the United States, CWA Section 404 jurisdiction extends to the high tide line,[8] which is defined as the line of intersection of the land with the water's surface at the maximum height reached by a rising tide.[9] For nontidal waters of the United States, jurisdiction extends to the ordinary high water mark,[10] which is defined as that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, or the presence of litter and debris.[11] For the territorial seas, which would include the Pacific Ocean to a distance of 12 nautical miles from the mean low water mark,[12] CWA Section 404 jurisdiction is limited to a seaward distance of 3 nautical miles.[13]

Rivers and Harbors Act of 1899 Section 10

Although not specifically raised in the Data Request, Applicant also addresses herein Section 10 of the federal Rivers and Harbors Act of 1899 (RHA Section 10), which requires authorization from the ACOE for construction of any structure in or over any navigable water of the United States.[14] The term “structure” includes, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction.[15] Similar to CWA

[1] 33 United States Code (USC) Section 1344.
[2] United States Code of Federal Regulations (CFR), Title 33, Part 323.2(f).
[3] 33 USC Section 1344(a).
[4] 33 CFR Part 328.3(a)(1).
[5] 33 CFR Part 328.3(a)(3).
[6] 33 CFR Part 328.3(a)(5).
[7] 33 CFR Part 328.3(a)(6).
[8] 33 CFR Part 328.4(b)(1).
[9] 33 CFR Part 328.3(c)(7).
[10] 33 CFR Part 328.4(c)(1).
[11] 33 CFR Part 328.3(c)(6).
[12] 1982 U.N. Convention on the Law of the Seas.
[13] 33 CFR Part 328.4(a).
[14] 33 USC Section 403.
[15] 33 CFR Part 322.2(b).

Section 404, activities regulated under RHA Section 10 may be authorized by individual permits or by NWP. A number of the NWPs issued by the ACOE authorize activity pursuant to both CWA Section 404 and RHA Section 10.

Navigable waters of the United States include, among other water bodies, waters that are subject to the ebb and flow of the tide.[16] This includes canals and other artificial water bodies that are subject to the ebb and flow of the tides.[17] For tidal waters, jurisdiction extends landward to the mean high water mark.[18]

Contact with ACOE

The Applicant contacted Dr. Daniel Swenson, Chief, ACOE Los Angeles and San Bernardino Section, Regulatory Division, on October 25, 2016. The Applicant provided information concerning the Project Enhancement – Outfall Removal and Beach Restoration, including removal of the existing outfall structure and installation of the new discharge point at the Edison Canal. Dr. Swenson generally confirmed the permitting requirements of CWA Section 404 and RHA Section 10, as described above, and stated that if permits were required, the permitting would be handled out of the ACOE's Ventura office.

Contact Information is as follows:

U.S. Army Corps of Engineers
Dr. Daniel P. Swenson
Chief, Los Angeles and San Bernardino Section, Regulatory Division
Daniel.P.Swenson@usace.army.mil
(213) 452-3414

Permitting Requirements Associated with Project Refinements

Installation of New Discharge to Edison Canal

Although no formal delineation has been performed, the Edison Canal likely meets the definition of both "waters of the United States" and "navigable waters of the United States." Jurisdictional waters beyond the canal itself, such as wetlands, are not expected to be present in the vicinity of the new discharge point due to the minimal topographical relief needed to collect or concentrate water, lack of stable substrate where wetlands would have the time to form, abundance of riprap, and absence of hydrophytic vegetation. No fill or structures associated with the new discharge point will be constructed in the Edison Canal below either the high tide line or the mean high water mark, meaning that if the Edison Canal is in fact a jurisdictional water under CWA Section 404 and/or RHA Section 10, all activity will fall outside the jurisdictional boundaries, and no permits will be required from the ACOE in connection with installation of the new discharge point. The discharge itself will be authorized by the modified National Pollutant Discharge Elimination System (NPDES) permit for the MGS property.

Removal of Existing Outfall

As a water body subject to the ebb and flow of the tide, and constituting territorial seas out to a distance of 12 nautical miles, the Pacific Ocean constitutes waters of the United States and navigable waters of the United States over which ACOE has jurisdiction seaward to a distance

[16] 33 CFR Part 329.4.
[17] 33 CFR Part 329.8.
[18] 33 CFR 329.12(a)(2).

of 3 nautical miles. In addition, although no formal delineation has been performed, based on currently available information, the channel associated with the outfall to the ocean likely constitutes waters of the United States as a tributary and/or waters adjacent to waters of the United States (i.e., the Pacific Ocean). Other jurisdictional waters, such as wetlands, are not expected to be present due to the minimal topographical relief needed to collect or concentrate water, lack of stable substrate where wetlands would have the time to form, abundance of riprap, and absence of hydrophytic vegetation. Work activities associated with the removal of the outfall and placement of fill will be conducted within the high tide line and mean high water mark. Therefore, a permit is required from the ACOE pursuant to CWA Section 404 and possibly RHA Section 10. Removal of the existing outfall is authorized by NWP 7, which authorizes regulated activity related to outfall structures under both CWA Section 404 and RHA Section 10.

DATA REQUEST

81. Please contact the Regional Water Quality Control Board to determine if the project requires a Section 401 water quality certification. Provide the contact information and reports of conversation.

As explained in the response to Data Request 80, no fill or structures associated with the new discharge point will be constructed in the Edison Canal below the high tide line, meaning they will fall outside the jurisdictional boundaries of CWA Section 404, and no CWA Section 404 permit will be required from the ACOE in connection with this aspect of the project. As a result, it will not be necessary to obtain a CWA Section 401 water quality certification from the Los Angeles Regional Water Quality Control Board (LARWQCB) for construction of the new discharge to the Edison Canal. It should be noted, however, that the existing MGS NPDES permit will be modified to address the new discharge to the Edison Canal.

As further explained in the response to Data Request 80, a permit is likely required from the ACOE pursuant to CWA Section 404 and possibly RHA Section 10 in connection with removal of the existing outfall. However, this activity is authorized by NWP 7. CWA Section 401 water quality certification is performed during the rulemaking process adopting the NWPs, and therefore no additional certification is required in connection with the project.

The Applicant contacted Ms. L.B. Nye, Total Maximum Daily Loads (TMDL) and Standards Unit Chief with the LARWQCB, on October 20, 2016. The Applicant provided information concerning the Project Enhancement – Outfall Removal and Beach Restoration, including removal of the existing outfall structure and installation of the new discharge point at the Edison Canal, and inquired about the CWA Section 401 water quality certification process. Ms. Nye confirmed that a Section 401 Water Quality Certification would be required for the installation of a new discharge point to the Edison Canal and removal of the existing outfall, if either activity required an individual CWA Section 404 permit from the ACOE. Ms. Nye confirmed that the need for the CWA Section 401 water quality certification would depend on the need to obtain a CWA Section 404 Permit from the ACOE. Ms. Nye also stated that she would rely on the determination of the ACOE regarding the need to obtain a CWA Section 404 Permit.

Contact information is as follows:

LARWQCB
Ms. L.B. Nye
TMDLs and Standards – Unit Chief
lnye@waterboards.ca.gov
(213) 576-6785

BACKGROUND:

The Edison Canal provides habitat for fish and wildlife, and may support the federally endangered tidewater goby. As part of the project, the project would discharge into the Edison Canal, instead of to the Pacific Ocean. Water discharges may adversely impact the Edison Canal and any species inhabiting it by affecting the temperature, quality, or salinity of the water. Tidewater gobies have been documented in waters with salinity levels from 0 to 42 parts per thousand (ppt) or higher (as a comparison, sea water is about 34 ppt), temperature levels from 8 to 25 degrees Celsius (46 to 77 degrees Fahrenheit), and water depths from 25 to 200 centimeters (10 to 79 inches) (USFWS 2016).

DATA REQUEST

82. Please describe how storm and wastewater discharges would be treated to control release of sediments and to reduce its temperature to that of the Edison Canal.

RESPONSE

The LARWQCB's Water Quality Control Plan – Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (LARWQCB, 1994) (Basin Plan) sets forth the following limitation with respect to the release of sediments: "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." The Edison Canal is listed in the Basin Plan as the "Edison Canal Estuary," with existing beneficial uses (E) for Marine Habitats of the Channel islands and Mugu Lagoon, which serve as pinniped haul-out areas for one or more species (o). Standard Best Management Practices will be implemented on site to minimize erosion and control the release of sediments to the canal. Stormwater will initially be directed to the retention basins, where any sediments that are conveyed to the basin would be allowed to settle prior to discharge to the canal.

The State Water Resources Control Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California on January 7, 1971, and amended it on September 18, 1975 (SWRCB, 1975) (California Thermal Plan). The California Thermal Plan states that "Elevated temperature wastes shall comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance" (Water Quality Objective 3.A.1). As applicable, the project will manage releases to the canal in accordance with the California Thermal Plan, which includes limits on new discharges to estuaries (i.e., waters that serve as mixing zones for fresh and ocean waters during a major portion of the year).

The discharge of process wastewater and stormwater into the canal will be managed in compliance with the effluent monitoring, effluent limitations, and discharge specifications in the modified NPDES permit (NPDES No. CA0001180) that will be obtained for the project. The NPDES permit incorporates the requirements of the LARWQCB Basin Plan and California Thermal Plan, which, together with other effluent limitations in the NPDES permit, will prevent adverse impacts to the canal.

It is also important to note that, with the exception of the relatively small volume of process wastewater from P3, all of the discharges that will be directed to the manmade Edison Canal (i.e., wastewater from MGS Unit 3 and stormwater from the entirety of the MGS property) are currently being discharged across the beach and to the ocean via the existing outfall structure. Any potential impacts associated with the proposed discharge to the Edison Canal, none of

which are significant, must be evaluated in the context of the improvements to baseline conditions that will result from removal of the existing outfall, including restoration of the beach and dune habitat in the vicinity of the outfall.

References

LARWQCB (Los Angeles Regional Water Quality Control Board), 1994. Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. June 13.

SWRCB (State Water Resources Control Board), 1975. Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California. Adopted in 1971, amended in 1975.

DATA REQUEST

83. Please describe how discharge of storm and wastewater would impact the Edison Canal in terms of turbidity, salinity, temperature, pH, or other relevant chemical constituents, and discuss how wildlife in the canal, particularly tidewater goby, may be affected by such discharges.

RESPONSE

P3 will use potable water as its source water, and the amount of wastewater generated will be approximately 6.5 acre-feet per year. MGS Unit 3 will continue to draw source water from the Edison Canal, as it does currently. With implementation of the project refinements, MGS Unit 3 wastewater, up to approximately 240 acre-feet per year, will be discharged to the Edison Canal, which is equivalent to the MGS Unit 3's withdrawal from the canal. Thus, the combined wastewater discharges from P3 and MGS Unit 3 would be small in comparison to the tidal prism of the canal and would not substantially change the turbidity, salinity, temperature, pH, or other relevant chemical constituents in the canal. Furthermore, the discharge of process wastewater to the canal will be subject to effluent limitations and discharge specifications in the modified NPDES permit (NPDES No. CA0001180) that will be obtained for the facility. Please refer to the responses to Data Requests 77 and 82 for further discussion of measures that will be implemented to ensure that discharge of wastewater will not adversely impact the Edison Canal and associated wildlife.

The current stormwater drainage area to the Edison Canal is approximately 3,300 acres (5.2 square miles) and is roughly bounded by Harbor Boulevard to the west, Gonzales Road to the north, Ventura Road to the east, and Fifth Street and Wooley Road to the south. There are more than 60 existing discharge points along the 2-mile length of the canal. Stormwater enters the canal through major drainage ditches, numerous culvert pipes, and one concrete paved flume. There are three major storm drains that discharge to the canal: the Doris Drain, the West Fifth Street Drain, and the Wooley Road Drain. For decades, Edison Canal has received stormwater from the area, with no apparent negative impacts to the marine life in the canal. Please refer to the response to City of Oxnard Data Request 104 for further discussion of current stormwater discharges to the Edison Canal. Figure 104-2 contained therein shows the major watersheds that drain to the canal, and Table 104-1 summarizes their areas and percent developed and undeveloped (Parma, 2003).

The volume of additional stormwater discharged to the canal from the MGS property, including the P3 site, will be minimal compared to current baseline discharges. As explained in the response to City of Oxnard Data Request 104, the additional volume is approximately 1.3 percent of the estimated total peak runoff into the Edison Canal. This figure likely overestimates the incremental contribution from the MGS property, because it does not factor in recycling and reuse of stormwater from the P3 site. Furthermore, discharges of stormwater from the MGS property will be subject to effluent limitations contained in the NPDES permit for the facility; whereas much of the urban and agricultural stormwater currently discharged to the canal is not subject to any specific water quality standards. The relatively low volume of relatively high quality stormwater that will be discharged to the Edison Canal from the MGS property will not result in significant impacts to water quality in the canal.

In the Application for Certification (AFC) and the Project Enhancement – Outfall Removal and Beach Restoration, it was conservatively assumed that the potential could exist for tidewater goby to be present in the Edison Canal, because the species is known to occur within the 10-mile regional study area for biological resources evaluated for P3, specifically at the Santa

Clara River estuary, in the Oxnard Drain ("J Street Canal"), the Ormond Beach Area, and southeast of Port Hueneme (CDFW, 2015). However, based on water quality and habitat requirements for tidewater goby outlined in U.S. Environmental Protection Agency and U.S. Fish and Wildlife Services documents, and conditions observed during onsite surveys, the Channel Islands Harbor and Edison Canal do not appear to possess the estuarine environment preferred by tidewater goby, or several of the other physical or biological features required for tidewater goby life history processes, and therefore is not suitable habitat for the tidewater goby. Based on information in the 2013 Designation of Critical Habitat for Tidewater Goby; Final Rule (USFWS, 2013) and historical location information (Swift et al., 1989), tidewater goby would not be expected in the Channel Islands Harbor and Edison Canal. Although there is a potential for tidewater goby to enter the harbor following wash-out events from nearby source populations (i.e., Santa Clara River and Ventura River) during winter storms, due to the largely marine environment in the harbor and canal, tidewater goby that could enter these water bodies at any time would not be expected to persist or establish a population.

Federal and state documents report that tidewater goby prefer salinities of less than 12 parts per thousand (USFWS, 2005). The salinity in the Edison Canal is typically very close to the salinity of the Pacific Ocean, which is where the Edison Canal originates. Additionally, tidewater goby prefer shallow water (i.e., less than approximately 3 feet) habitats with emergent vegetation. The water depth of the canal varies throughout the year, and daily due to the tide fluctuation, but is generally more than 10 feet deep. The canal does not typically harbor emergent vegetation.

Taking into consideration the volume and quality of the water that will be discharged to the Edison Canal, the regulatory and permitting requirements applicable to the discharge, and the unsuitability of the habitat in the vicinity of the discharge to tidewater goby, adverse impacts to this species are not expected. Finally, as stated in the response to Data Request 82, any potential impacts associated with the proposed discharge to the Edison Canal, none of which are significant, must be evaluated in the context of the improvements to baseline conditions that will result from removal of the existing outfall, including restoration of the beach and dune habitat in the vicinity of the outfall. These improvements can only be achieved by redirecting discharges to the Edison Canal.

References

CDFW (California Department of Fish and Wildlife), 2015. California Natural Diversity Database (CNDDB). The CNDDB GIS data in shapefile format. Available online at: https://nrm.dfg.ca.gov/cnddb/view/updates.aspx. Accessed January 2015.

Parma James, G., 2003. Mandalay Generating Station Intake Canal Shoaling Study. Prepared by Reliant Energy Wholesale Service Company, Engineering Services. November 18. PF#MAN 300008.

Swift, C.C., J.L. Nelson, C. Maslow, and T. Stein, 1989. Biology and distribution of the tidewater goby, *Eucyclogobius newberryi* (Pisces: Gobiidae) of California. Contributions in Science 404, Natural History Museum of Los Angeles County, Los Angeles. 19 pp.

USFWS (U.S. Fish and Wildlife Service), 2005. Recovery Plan for the Tidewater Goby (*Eucyclogobius newberryi*). Pacific Region, U.S. Fish and Wildlife Service, Portland, Oregon. December 7. Accessed online at https://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/TidewaterGobyfinalRecoveryPlan.pdf. Accessed through October 2016.

USFWS (U.S. Fish and Wildlife Service), 2013. Federal Register Volume 78. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Tidewater Goby (*Eucyclogobius newberryi*). U.S. Fish and Wildlife Service, Interior. February 6. Available online at: https://www.gpo.gov/fdsys/pkg/FR-2013-02-06/pdf/2013-02057.pdf. Accessed through October 2016.

BACKGROUND:

Dune mats at the site of the outfall structure are a sensitive natural community, and may contain special status species such as globose dune beetle, silvery legless lizard, dunedelion or South Coast saltscale, among others. Section 3.2.2.2 (page 3-7) states that outfall demolition and removal activities would occur on the beach adjacent to the dunes. Section 3.2.2.2 (page 3-8) further states that demolition would result in the temporary disturbance of sandy beach and dune vegetation, with overall impacts stated as being 0.4 acres (Section 2.1.2, page 2-2). The acres of temporary impact to vegetation communities and developed portions of the site is unclear. Furthermore, without specific data on which species inhabit the outfall and access road, staff is unable to complete its analysis of impacts to special status plants and wildlife.

DATA REQUEST

84. Please provide impact acres for land cover types, including sandy beach, dune vegetation, and developed (outfall structure, wing walls and riprap).

RESPONSE

Potential impact acres for vegetation communities and land cover types by activities associated with the outfall removal, including an assumed 20-foot buffer zone, are presented in Table 84-1 and shown on Figure 84-1. It must be noted that, with the exception of the beneficial loss of manmade land cover type (i.e., open water habitat associated with the manmade channel, culverted water, and developed land cover), the impacts to vegetation communities and other land cover types are temporary in nature. It is anticipated that these temporarily disturbed areas will return to their pre-project condition following completion of demolition. Furthermore, once demolition of the existing outfall is complete and the beach and dune area is restored, the net effect will be an increase in natural vegetation communities and land cover types relative to current baseline conditions. The last column in Table 84-1 includes the net gain in natural land cover types as a result of the project.

Approximately 1.14 acres associated with impacts due to construction activities, plus an additional 1.91 acres of existing open water channel, will be naturally restored to sandy beach, for a total of 3.05 acres. Approximately 1 acre of this area is expected to also be recolonized by adjacent dune mat vegetation. Thus, any impacts associated with removal of the outfall will be temporary in nature, and the long-term result of the project will be restoration of natural beach and dune habitat over an area that is greater than that temporarily impacted by demolition activities.

Table 84-1
Impact Areas for Land Cover Types Associated with Outfall Removal

Land Cover Type	Construction Impacts[2] (acres)	Access to Outfall (acres)	Total (acres)	Naturally Restored to Sandy Beach (acres)
Anthropogenic, Nonnative, and Naturalized				
Culverted Water	0.09	0	0.09	0.09
Developed[1]	0.39	0	0.39	0.39
Ice Plant Mats	0.09	0.12	0.21	0.09
Ruderal	0	0.003	0.003	0
Sub-total	*0.57*	*0.123*	*0.69*	*0.57*
Native				
Dune Mats	0.3	0.37	0.67	0.3
Open Water[3]	0.23	0	2.14	2.14
Sandy Beach	0.04	0	0.04	0.04
Sub-total	*0.57*	*0.37*	*2.85*	*2.48*
Grand Total	**1.14**	**0.49**	**3.54**	**3.05**

Notes:

1 Developed land cover type includes outfall structure, wing walls, and riprap.
2 Construction impacts include the aboveground outfall demolition area, slurry-filling of the mixing vault and concrete culvert, and the 20-foot buffer zone surrounding the demolition activity area and culvert.
3 Post-construction impacts include the conversion of 1.91 acres of open water habitat to a naturally restored sandy beach.

DATA REQUEST

85. Please perform focused surveys for special status plants and wildlife on dune habitat to be impacted by outfall removal and use of the access road.

RESPONSE

Surveys were conducted on the dune areas that may be impacted by outfall removal, including the access road to the outfall removal area, and are documented in the AFC Biological Resources section. A biological field reconnaissance was performed by AECOM biologist Christopher Julian on January 12, 2015, and botanical and wildlife surveys of the site and surrounding vicinity (1,000-foot buffer) were conducted by AECOM biologists Christopher Julian, Julie Love, and Elihu Gevirtz on March 12 and 31, 2015. During each survey, common and special-status species were documented. Specifically, AFC Tables 4.2-2 and 4.2-3 document the plant and wildlife species observed by habitat in the project site and the immediate vicinity. Further information on these surveys, including survey methods and results, can be found in Section 4.2, Biological Resources, of the AFC.

As described in Section 3.2.1.2 of the Project Enhancement – Outfall Removal and Beach Restoration (TN# 213802), various special-status plant and wildlife species have the potential to occur in the area surrounding the outfall. The two plant species noted by the California Energy Commission (CEC) in the Background to this Data Request, dunedelion and South Coast salt scale, are analyzed in Section 3.2.2.2 of the Project Enhancement. Although these species are not expected to be present in the affected area, pre-construction surveys, biological monitoring during demolition, and implementation of proposed avoidance and minimization measures in accordance with proposed Preliminary Staff Assessment (PSA) Conditions of Certification BIO-6, Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and BIO-7, General Impact Avoidance and Minimization Measures, will limit impacts in the event that these species are found.

The other two special-status species noted by the CEC, globose dune beetle and silvery legless lizard, have the potential to occur in the impact area, as described in Table 4.2-1 of the AFC. Although these are sensitive resources, they are not federally or state listed. The globose dune beetle, which maintains no federal or state designation, and the silvery legless lizard, which is a California Species of Concern, are species of low mobility. As discussed in Section 3.2.2.2 of the Project Enhancement, species of low mobility such as these would be unable to escape mortality. Pre-construction surveys, biological monitoring during demolition, and implementation of proposed avoidance and minimization measures in accordance with proposed PSA Conditions of Certification BIO-6 and BIO-7, will limit impacts to these species if present.

Any impacts associated with removal of the outfall will be temporary in nature, and the long-term result of the project will be restoration of natural beach and dune habitat over an area that is greater than that temporarily impacted by demolition activities. Thus, the project results in a net benefit to the species identified above, and others that may occupy the area in the vicinity of the existing outfall.