



August 16, 2019

Governor's Office of Planning & Research

AUG 16 2019

Mr. Kevin Hadden
Orange County Sanitation District
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STATE CLEARINGHOUSE

Subject: Comments on the Availability of a Draft Recirculated Environmental Impact Report for the Bay Bridge Pump Station and Force Mains Replacement Project, Newport Beach, CA (SCH# 2016111031)

Dear Mr. Hadden:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Draft Recirculated Environmental Impact Report (DREIR) for the Bay Bridge Pump Station and Force Mains Replacement Project, dated June 2019. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act, [CEQA] Guidelines §15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code § 2050 et seq.) and Fish and Game Code section 1600 *et seq.* The Department also administers the Natural Community Conservation Planning program.

The DREIR proposes modification of the Bay Bridge Pump Station (Northeast Station) locations, creation of a new South Pump Station, and new alternative alignments for the replacement/installation of one new force main across Newport Bay Channel. Two basic force main alignments (south and north of the Bay Bridge) are presented, and one will be chosen. Three feasible force main installation technologies and two pump station locations are described for consideration, and one final force main construction technology and pump station location will be chosen. Pump station locations are located within an entirely developed area on the east side of the channel. Horizontal directional drilling (HDD) will be used to install a new force main underneath the existing Newport Bay Channel if the north alignment is chosen. If the south alignment is chosen, either dredging, microtunneling, or a combination of the two will be used. Construction is estimated to take place over nine to twelve months.

Upper and Lower Newport Bay is an estuary and supports not only extensive eelgrass beds, but also rare coastal lagoon habitats and wetlands; these wetland habitats are found within the Upper Newport Bay State Marine Conservation Area (SMCA) which are protected under the State Marine Life Protection Act. SMCAs protect tidal lands, wetlands up to the mean high tide line, fish and fish habitat for many fish species that are both state and federally managed from the bay bridge to the San Diego Creek Channel. The project area is surrounded by sensitive areas to the north and south of the highway bridge including eelgrass beds (*Zostera marina* and/or *Zostera pacifica*) and shallow estuarine waters/wetlands, which are essential foraging habitats for multiple species. Green sea turtles (*Chelonia mydas*; Endangered Species Act (ESA) listed- threatened) may be found foraging in this area and southern steelhead (*Oncorhynchus mykiss*; ESA-listed endangered) may be found during migration periods

(calfish.ucdavis.edu, 2019). Marine mammals may occasionally be found near the project area. The shallow waters and eelgrass are also important for the resident and migratory bird species. The California least tern (*Sterna antillarum browni*; ESA-listed endangered; California fully protected species) and many other sensitive seabirds and shorebirds may forage and nest in the vicinity between April and September.

Pre-construction surveys are proposed for nesting birds (BIO-1), marine mammals in the case of dredging (BIO-2), and eelgrass and/or kelp species habitats (BIO-3). The Department has identified additional biological resources issues that are of concern. We offer the following comments and recommendations to assist the Orange County Sanitation District (OCSD) in avoiding or minimizing potential project impacts to biological resources.

1. The Department recommends that the selected force main alignment be located outside of the Upper Newport Bay SMCA. Feasible methods should be used to avoid and minimize any residual impacts to the SMCA habitats and species. No net loss of wetlands within the SMCA should occur per the California Fish and Game Commission's Wetland Resources Policy (2019). If complete avoidance of direct and indirect impacts to the SMCA is not feasible, OCSD should collaborate further with the Department prior to finalizing the force main alignment/technology.
2. Dredging alternatives described in the DREIR would involve the direct removal of eelgrass habitat and marine invertebrates. Dredging can result in underwater noise, causing behavioral responses such as interruption of species movements between Lower Newport Bay and Upper Newport Bay. Proposed dredging activities may result in turbidity and sedimentation that could be carried by currents into the SMCA resulting in direct impacts. This may lead to poor water quality, and indirect impacts to birds, marine plants, animals, and SMCA. Because of potentially significant impacts associated with dredging, the Department recommends utilizing HDD technologies to avoid impacts to eelgrass, wetlands, fish, birds, benthic habitat, and invertebrates.
3. Conceptually, HDD methods create fewer impacts than traditional dredging; however, the use of a clay lubricant, specifically bentonite slurry, can permanently impact aquatic species and their habitats when hydrofractures (commonly referred to as "frac-outs") occur. Bentonite is often considered non-toxic; however, benthic invertebrates, aquatic plants, fish, and their eggs can be smothered by fine particles of bentonite if it is discharged into waterways. Accordingly, the Department recommends the DREIR adopt a mitigation measure focusing on minimizing direct, indirect, and cumulative impacts that may occur from hydrofractures associated with HDD operations. At a minimum, the mitigation measure should include the following:
 - a. drilling shall halt immediately when a hydrofracture is detected, and hydrofractures shall be cleaned immediately after they occur, if feasible. Necessary response equipment shall be readily accessible and in good working order;
 - b. borehole pressures should be monitored during all drilling, boring, and reaming activities. The monitor should be independent of and work closely with the drill operator during operations. The drill operator and/or monitors shall have the authority to halt HDD activities without reprisal;
 - c. all field personnel shall understand their responsibility for timely reporting of hydrofractures; and,

- d. techniques to reduce potential for hydrofracture and inadvertent returns, such as:
 - i. sufficient earth cover for the given substrate should be used to increase resistance to hydrofracture;
 - ii. an adequately dense drilling fluid should be used to avoid travel of drilling fluid in porous sands;
 - iii. the bore should be conducted in a manner that avoids collapse;
 - iv. borehole pressure should be maintained low enough to avoid hydrofracture;
 - v. reaming and pullback rates should be maintained at rates slow enough to avoid over-pressurization of the bore;
 - vi. the surface above the vicinity of the drill head should be visually monitored for surface evidence of hydrofracture;
 - vii. drilling methods should be modified to suit site conditions such that hydrofracture does not occur; and,
 - viii. Non-toxic dyes or markers should be utilized to aid hydrofracture detection.
4. The Department thanks OCSD for their consideration of avoidance of impacts to biological resources through the incorporation of HDD and microtunneling techniques; however, as stated above, these techniques are not entirely without risk (e.g., hydrofractures). Given that it is possible for hydrofractures to substantially adversely impact the Newport Bay Channel, we encourage the OCSD to consult further with the Department regarding the possible submittal of a streambed notification package to the Lake and Streambed Alteration Program, per Fish and Game Code section 1600 *et seq.*
5. The Department is concerned for potential impacts to eelgrass due to its historical presence throughout Upper and Lower Newport Bay. Eelgrass habitat areas are designated Habitat Areas of Particular Concern (HAPC) under the federal Magnuson-Stevens Fishery Conservation and Management Act, the primary law governing marine fisheries management in U.S. waters. The National Marine Fisheries Service, in collaboration with the Department and other agencies, developed a statewide California eelgrass mitigation policy (CEMP, 2014) that incorporates a "no net loss of habitat" in order to help conserve eelgrass resources in California. Eelgrass habitat is present within the project area and will need to be addressed if the project includes dredging. Should eelgrass mitigation and transplanting be required, the Department requires a Scientific Collecting Permit to collect eelgrass, and a Letter of Authorization for eelgrass translocations. The Department requests to be provided with any pre- and/or post-project survey reports, and draft mitigation and monitoring plans, with an opportunity to comment and collaborate prior to finalization.
6. The protection and restoration of oysters and eelgrass is critical to the health and resiliency of the Newport Bay ecosystem. Because both species provide many ecosystem services for our coastal wetlands, the Department recommends that additional surveys be conducted for other species such as Olympia oysters (*Ostrea lurida*) during the pre-construction eelgrass surveys. Oysters may be present in the project area and should be avoided if identified. Oysters increase the abundance of fish and wildlife through their creation of complex habitat and improvement of water quality through filter feeding. Oysters also stabilize sediments, buffer erosion, and wave energy, which can reduce the impacts of sea level rise (coastkeeper.org, July 2019). We recommend that pre-construction surveys be incorporated into a mitigation measure in the DREIR.

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7. The Department recommends construction impacts to sensitive species and foraging habitat be avoided completely, when feasible (e.g., avoiding construction during the California least tern breeding/nesting season). Measures to minimize direct and indirect impacts to marine life resources may include monitoring, halting construction activities, and installing silt curtains to reduce turbidity/sedimentation effects. Risk of environmental contamination releases due to accidental hydrofractures during drilling should also be reduced by best available practices (see Comment 3).

The Department appreciates the opportunity to comment on the DREIR for this project and to assist OCSD in further minimizing and mitigating project impacts to biological resources. The Department requests that a written response to our comments be provided in the final EIR, as required per CEQA Guidelines section 15088(d). If you have any questions or comments regarding this letter, for land species please contact Jennifer Turner of the Department at (858) 467-2717 or jennifer.turner@wildlife.ca.gov. For marine species, Marine Protected Areas and Eelgrass, please contact Loni Adams of the Department at (858) 627-3985 or loni.adams@wildlife.ca.gov.

Sincerely,



Gail K. Sevens
Environmental Program Manager
South Coast Region

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