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Subject: National City Bayfront Projects and Plan Amendment, Draft Environmental Impact Report (DEIR), SCH #2018121054

Dear Ms. Buzaitis:

The California Department of Fish and Wildlife (CDFW) has reviewed the San Diego Unified Port District's DEIR for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW provided a comment letter, dated January 21, 2019, on the Notice of Preparation of the DEIR.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW may also need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 *et seq.*) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), the Project Proponent may seek related take authorization as provided by the Fish and Game Code.

[1] CEQA is codified in the California Public Resources Code in section 21000 *et seq*. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

PROJECT DESCRIPTION SUMMARY

Proponent: While the San Diego Unified Port District (District) acts as the Lead Agency under CEQA for the Project, for purposes of this letter, CDFW refers to the District, City of National City (City), GB Capital Holdings (GB Capital), and Pasha Automotive Services (Pasha) collectively as the Project Proponents.

Objective: The Project has both landside and waterside development components; an amendment to the District's Port Master Plan (PMP); amendments to the City's Local Coastal Program (LCP), General Plan, Harbor District Specific Area Plan (HDSAP), Land Use Code (LUC) (Municipal Code Title 18 Zoning), and Bicycle Master Plan.

Specifically, the Project includes the following main components.

- The National City Marina District Balanced Land Use Plan (Balanced Plan) involving changes to land and water use designations in the District's PMP.
- The GB Capital Component, which would include construction and operation of a recreational vehicle (RV) park, modular cabins, dry boat storage, up to four hotels, and an expanded marina, primarily within the District's jurisdiction.
- The Pasha Rail Improvement Component, which would involve construction and operation of a rail connector track and storage track within the District's Jurisdiction.
- The Pasha Road Closures Component, which would result in closure of Tidelands Avenue between Bay Marina Drive and 32nd Street, as well as West 28th Street between Tidelands Avenue and Quay Avenue, within the District's and City's jurisdictions and redesignation of the area to Marine-Related Industrial in the District's PMP.
- The Bayshore Bikeway Component, which would consist of construction and operation of Segment 5 of the Bayshore Bikeway within the District's and City's jurisdictions.
- The City Program – Development Component, which would include construction and operation of hotel, restaurant, retail, and/or a combination of tourist/visitor-serving commercial development north of Bay Marina Drive and the potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic within the City's jurisdiction.
- The PMPA Component, which would utilize a PMP Amendment (PMPA) to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses.
- The City Program – Plan Amendments Component, which would involve amendments to the City's LCP, General Plan, HDSAP, LUC, and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations.

Location: The Project occurs on approximately 77 acres, consisting of approximately 58 landside acres and 19 waterside acres. The Project site is in the southwestern portion of the City, primarily within the District's existing jurisdiction but also partially within the City's existing jurisdiction. The Project area is generally bordered by Paradise Marsh (part of the San Diego Bay National Wildlife Refuge/Sweetwater Marsh Unit) to the east, Sweetwater Channel to the south, the National City Marine Terminal and maritime uses to the west, and Civic Center Drive and commercial and industrial uses to the north.

Biological Setting and Impact Summary: Various components of the Project would or could potentially have significant temporary and permanent impacts on both marine and terrestrial biological resources and organisms.

Marine Impacts

Construction of the waterside portion of the GB Capital Component, including new moorings, aquaculture, and docks, would include in-water operations, such as pile driving, which would generate increased noise and ground-disturbing activities within the marine community. Impact-hammer and vibratory-hammer pile-driving activities would potentially generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) of green sea turtle (*Chelonia mydas;* federal Endangered Species Act (ESA)- listed threatened), fishes, and marine mammals, including candidate, sensitive, or special-status species, within Sweetwater Channel. Mitigation Measure BIO 7 (MM-BIO-7) in the DEIR would require, prior to construction activities involving impact-hammer and vibratory in-water pile driving, implementation of a marine mammal, fish injury, and green sea turtle monitoring program. For a period of 15 minutes prior to the start of in-water construction, a qualified biologist retained by a Project Proponent (i.e., GB Capital) would monitor around the active pile driving areas to ensure that special-status species were not present. Monitors would also monitor for injured fish and stop construction work if there were an observation of concern. In-water pile driving would begin with soft starts, gradually increasing the force of the pile driving to allow marine mammals, green sea turtles and fishes to flee areas adjacent to pile driving activities. In addition, the Project Proponent would ensure that if in-water construction is performed during the California least tern (least tern; *Sterna antillarum browni*; California Fully Protected Species (FPS); CESA- and ESA- listed endangered) nesting season that turbidity is monitored during in-water construction. If the in-water work area is 20% more turbid than ambient conditions, the Project Proponent would cease work immediately until the turbidity dissipated within the work area. If the turbidity cannot be dissipated within the work area, the Project Proponent would be required to install a silt curtain to control the turbidity during in-water construction.

Operation of the waterside portion of the proposed GB Capital Component would include a vessel dock and new boat slips within Sweetwater Channel, moorings, and aquaculture facilities. The dock structures would shade eelgrass (*Zostera marina;* Magnuson-Stevens Fishery Conservation and Management Act (MSA)- designated essential fish habitat (EFH)) habitat area of particular concern (HAPC) growing along the shoreline. Aquaculture facilities might require the use of floating or suspended containment structures. The proposed expanded marina would increase boating operations and storage. Prior to the start of any in-water construction, the Project Proponent would retain a qualified marine biologist to develop an eelgrass mitigation plan in compliance with the California Eelgrass Mitigation Policy. MM-BIO-12 would that require pre-construction and at least two years of post-construction eelgrass surveys be conducted. MM-BIO-13 would require implementation of regulatory agency-approved mitigation to reduce overwater coverage prior to implementation of the Project.

Terrestrial Impacts

Construction of the landside portion of the proposed Project, particularly the GB Capital Component, Bayshore Bikeway Component, and City Program – Development Component, would require demolition or grading equipment for site preparation, construction cranes for installation of the hotels, and standard construction equipment, such as earth-moving equipment, concrete trucks, forklifts, and pile drivers. Construction would temporarily disrupt the area due to an increase

in noise levels, truck traffic, and ground-disturbing activities. Some components of the Project would result in permanent impacts to terrestrial habitats and sensitive animal and plant species. The proposed Project includes construction and operation of Segment 5 of the Bayshore Bikeway. The DEIR analyzes three alignments of the Bayshore Bikeway; however, only one alignment will be selected for implementation. Route 3 is currently the preferred alignment according to the DEIR.

Construction of Route 1 or Route 3 could result in indirect or inadvertent impacts resulting in direct mortality of individual estuary seablite (*Suaeda esteroa*: California Native Plant Society (CNPS) Rare Plant Rank 1B.2) plants during construction activities. These impacts would be significant. MM-BIO-1 would ensure that an authorized biologist would be present onsite during construction within or adjacent to suitable habitat for estuary seablite to ensure that avoidance and minimization measures were followed properly.

Construction of Bayshore Bikeway Component Route 1, which could result in the permanent loss of 0.03 acre of coastal salt marsh habitat, has the potential to negatively affect the state-listed Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; CESA-listed endangered), observed in the Project area during site surveys; wandering skipper (*Panoquina errans*); Multiple Species Conservation Plan (MSCP) Covered Species), observed directly adjacent to the Project area; and yellow rail (*Coturnicops noveboracensis*; California Species of Special Concern), which has a moderate potential to occur within the salt marsh habitat in Paradise Marsh. These impacts would be significant without mitigation. If Route 1 were selected as the final alignment for the Bayshore Bikeway Component, and if impacts on salt marsh habitat were anticipated, MM-BIO-2 requires the Project Proponent responsible (i.e., the City or Caltrans) to consult with the CDFW to determine the need to seek an Incidental Take Permit (ITP) through Section 2081 of the Fish and Game Code for potential impacts on Belding's savannah sparrow habitat. Compensatory mitigation would be provided at a minimum of a 1:1 ratio in accordance with the ITP requirements.

The GB Capital Component and the Bayshore Bikeway (Routes 1 and 3) Component of the Project could produce noise-generating impacts resulting from Project construction activities (e.g., grading, site preparation) near salt marsh habitats supporting Belding's savanna sparrow or light-footed Ridgway's rail (*Rallus longirostris levipes*; FPS; CESA- and ESA-listed endangered) could cause nest or chick abandonment. MM-BIO-3 would prohibit construction work from occurring within 300 feet of the marsh during the light-footed Ridgway's rail and Belding's savannah sparrow breeding season (February 15– September 15).

Operation of Bayshore Bikeway Component Route 1 could result in pedestrians or cyclists traveling off-trail, which could result in direct mortality of terrestrial candidate, sensitive, or special-status plant species. MM-BIO-8 would require the Project Proponent to install fencing along the edge of the Route 1 to prevent unauthorized access and trampling into Paradise Marsh.

Bayshore Bikeway Component Route 1 and Route 3 and GB Capital Component could involve removal or trimming of suitable roost trees could directly harm roosting bats, resulting in mortality of common or special-status bat species. These impacts could result in large bat mortality events and would be significant absent mitigation. MM-BIO-6 would require surveys for maternal bat roost sites and avoidance of seasonal impacts.

Construction of the Park Expansion, Pasha Rail Improvement Component, and Roadway Configuration in the Balanced Plan could result in noise-generating impacts near osprey nests could cause nest or chick abandonment. MM-BIO-4 would avoid all noise-generating construction

activities during the osprey nesting season (January 15–June 15) or provide 500-foot avoidance buffers from any observed active nest.

The Pepper Park Expansion, Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3 could result in potential disturbance or destruction of nests protected by the Migratory Bird Treaty Act (MBTA). MM-BIO-5 would require avoidance of all vegetation or noise-generating construction activities during the nesting season (February 15–September 15)), or, if construction could not be avoided during the nesting season, nesting bird surveys would be required, and construction prohibited within a buffer zone around active nests.

Construction of the GB Capital Component and Bayshore Bikeway Component Route 1 or Route 3) would have the potential to remove Diegan coastal sage scrub (including restored and baccharis-dominated forms). The potential reduction in Diegan coastal sage scrub would be significant. MM-BIO-10 would require compensation for permanent impacts on Diegan coastal sage scrub habitats at a minimum 1:1 ratio, with compensation occurring as creation, enhancement, or restoration. The compensation could occur through a combination of one or more of the following: onsite enhancement, re-establishment, or creation; or payment into an agency-approved in-lieu fee, mitigation program, or other approved mitigation provider.

Construction of Bayshore Bikeway Component Route 1 would have the potential to remove coastal salt marsh habitat. If Route 1 were chosen, then MM-BIO-11 requires that, prior to issuance of a Coastal Development Permit, the Project Proponent of Bayshore Bikeway Component would request and participate in stakeholder meetings with applicable regulatory agencies and the District to identify locations within the San Diego region to mitigate impacts on coastal salt marsh habitat. All feasible efforts to avoid impacts on coastal salt marsh would be made during final Project design. If avoidance could not be accomplished, then areas for on-site restoration or enhancement within the Paradise Marsh would be prioritized for the required compensatory mitigation. Typical mitigation ratios for coastal salt marsh habitat are 2:1 to 3:1 depending on site conditions at both the impact site and mitigation site.

Use of reflective building and glass finishes in hotel development associated with the City Program – Development Component might confuse birds in flight, leading to an increase in strikes. This impact would be potentially significant. Where a building would be taller than three stories, MM-BIO-9 would require an ornithologist (retained by the respective Project Proponent and pre-approved by the District and familiar with local species to review building plans to verify that the proposed building has incorporated specific design strategies that qualify for Leadership in Energy and Environmental Design (LEED) credits, as described in the American Bird Conservancy's Bird-Friendly Building Design (Sheppard and Phillips 2015) or an equivalent guide to avoid or reduce the potential for bird strikes.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the District in adequately identifying and/or mitigating the Plan's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Recommendations may also be included to improve the document.

I. Mitigation Measure or Alternative and Related Impact Shortcoming

COMMENT #1: Seabird Foraging Habitat Impacts—Sweetwater Channel

CDFW reviewed the DEIR, Appendix H and noted the potential special status seabird species listed that may be present within the proposed waterside Project area of Sweetwater Channel. The State fully protected seabird species that occur or have the potential to forage in the Sweetwater Channel Project area include:

- California least tern
- California brown pelican, (brown pelican), (*Pelecanus occidentalis californicus*; FPS)

Issue: The least tern foraging area near their nesting colony at the D Street Fill location will be significantly impacted by the proposed waterside Project due to loss of foraging open water habitat and loss of eelgrass habitat within Sweetwater Channel. The D Street least tern nesting colony may be one of the most successful nesting sites in California, and the least terns have been observed foraging in Sweetwater Channel (CDFW NOP Letter, Jan. 2019). The least tern is migratory and forages on juvenile or small adult fish in San Diego Bay or offshore near their nesting sites. The nearest suitable foraging site and fish nursery habitat with eelgrass close to the D Street nesting colony is Sweetwater Channel entrance, which is considered a sensitive habitat area for bird foraging.

Specific Impacts: According to the DEIR, permanent seabird foraging impacts will occur due to the proposed in-water Project construction within Sweetwater Channel. This includes permanent large area foraging habitat losses of eelgrass and open shallow water due to overwater structure shading and habitat covering. Other potential permanent impacts include general recreational boating activities, boat moorings, and floating shellfish aquaculture equipment. Temporary foraging impacts may include underwater noise and turbidity due to in-water construction.

Why impacts would occur: Permanent and temporary foraging habitat impacts will occur because least terns currently nest on the least tern nesting colony at the D Street nesting site adjacent to Sweetwater Channel and forage in the channel during the breeding and nesting season, which is typically between April 1st and September 15th. Foraging habitat loss impacts would cause the least terns and other sensitive birds that currently use the Sweetwater Channel, for suitable foraging habitat, to seek other suitable foraging areas further away from nests. This could potentially leave the eggs or chicks vulnerable to predation on the D Street nesting site. Additionally, there will be temporary Sweetwater Channel habitat degradation related to pile driving underwater noise, and turbidity.

Permanent Impacts: The proposed in-water Project developments would shade and cover eelgrass and open shallow water habitat causing expected and potential adverse bird foraging impacts that was not fully analyzed and discussed in the DEIR.

Temporary Impacts: During construction of concrete piles there will be underwater noise and turbidity from pile driving which will cause fish and foraging birds to avoid their usual foraging habitat and may cause adverse impacts related to barotrauma injury or death of fish. This may temporarily cause fish used by least terns to be unavailable or scarce during their critical nesting and chick rearing season.

Evidence impacts would be significant: Based on recent 2018 eelgrass surveys documented in the DEIR (Appendix H), the Sweetwater Channel eelgrass bed area east of the Pier 32 Marina entrance is historically a persistent eelgrass bed offering high quality foraging habitat for fully protected seabirds and other sensitive birds.

Permanent Impacts: After construction of the overwater boat docks, boat moorings, pier platform, and shellfish aquaculture equipment, open water seabird foraging habitat would be permanently covered. According to the DEIR (Appendix H), the eelgrass shading effects of the proposed overwater structure would be expected to cause permanent losses, and/or degradation, of most if not all the existing and persistent eelgrass habitat. Generally, this is expected to degrade the eelgrass ecosystem and marine biodiversity as discussed in the DEIR (Appendix H) regarding impacts to primary and secondary (fish) productivity and bottom-up trophic level impacts. The local ecosystem level impacts would likely reduce fish needed for least tern foraging habitat on a permanent basis if not replaced within Sweetwater Channel in the near vicinity, which is likely not feasible. Offsite mitigation would likely be necessary, making all Sweetwater Channel habitat losses permanent within the local area. Anthropogenic disturbances and sedimentation from permanent increased boating activity, boat moorings, and shellfish aquaculture operation may cause additional eelgrass losses, and degradation of bird foraging habitat. All impacts combined may permanently and significantly reduce high quality seabird foraging habitat near the D Street least tern nesting colony and may reduce the D Street nesting least tern population.

Temporary Impacts: Generally, fish move away from the source of underwater noise and turbidity during construction, and this is expected to temporarily reduce migratory least tern and resident bird foraging opportunities within the Sweetwater Channel. Underwater noise and fish responses are discussed in detail in the DEIR (Appendix H) regarding barotrauma impacts to fish. During construction of concrete piles, there would be generation of water turbidity from pile driving which is caused by bottom sediment disturbances during construction of any new piles for docks and piers.

Recommended Potentially Feasible Mitigation Measure(s): CDFW recommends the Final EIR include the following to reduce the risk of adverse foraging impacts to fully protected least terns and Brown pelicans:

Mitigation Measure #1: Add the following additional mitigation measure to the Final EIR: To avoid temporary foraging impacts to least terns during their nesting and breeding season, conduct pile driving outside of least tern breeding and nesting season (typically between April 1st and September 15th). If the least tern nesting season cannot be avoided, then CDFW has further recommendations below.

Recommendation #1: Add the following additional in-water construction protection measures to the Final EIR: To further avoid and minimize impacts to fully protected and federal or state endangered species, add a least terns and Brown pelican safety zone monitoring and avoidance plan. Each bird species should have mitigation measures specified that will avoid or minimize in-water construction impacts.

Recommendation #2: To avoid impacts to least tern foraging, marine life, and their habitat, CDFW recommends choosing a feasible Sweetwater Channel waterside development project alternative which will reduce impacts below the level of significant or choose Alternative 2, described in the DEIR, to avoid coverage and shading of open water habitat. The focus for Sweetwater Channel regarding locally sensitive and fully protected birds should include

avoidance of take and avoidance and minimization of foraging habitat impacts. This would include avoiding and minimizing surface water losses, overwater shading of eelgrass, as well as boating and marina impacts discussed below. Additionally, it is important to avoid and minimize impacts related to live aboard noise, night lighting, and unauthorized boat landings on the bird nesting and Refuge areas. The DEIR identifies Project Alternative 2 as the "no water side development" alternative to avoid all degradation and losses of eelgrass and open water foraging habitat.

COMMENT #2: Pile Driving Impacts and Sound Criteria

Issue: CDFW reviewed Appendix H of the DEIR that analyzed underwater noise and turbidity impacts within the Sweetwater Channel. The proposed waterside Project will generate temporary underwater noise and turbidity from pile driving construction of 79 concrete piles for Sweetwater Channel new boat docks, new pier platform, and for the existing marina expansion. There is potential of significant barotrauma impacts to fish and invertebrates which will occur from the proposed use of impact hammers. CDFW relies on guidance from the Fisheries Hydroacoustic Working Group for setting sound pressure level safety criteria for fish resources, and for pile driving projects. The agreed upon criteria consists of sound pressure levels (SPL) of 206 decibels (dB) peak and 187 dB (or 183 dB for fish less than 2 grams body weight) accumulated sound exposure level (SEL) for all listed fish within a project area. Impacts to marine organisms from underwater sound are influenced by the SELs, SPLs, sound frequency, and depth and distance from the sound output source. CDFW prefers the use of the vibratory hammer for pile driving and recommends against using a dynamic or impact hammer. Additional information on in water sound level criteria can be found at: https://dot.ca.gov/programs/environmental-analysis/biology/hydroacoustics

Specific Impacts: Pile driving has potential significant underwater sound pressure effects to fish, marine mammals and sea turtles as discussed in the DEIR.

Why impacts would occur: During installation of concrete piles, there would be underwater noise created from pile driving which will cause altered foraging behaviors of fish, marine mammals, and sea turtles. Fish may temporarily avoid their usual foraging habitat during pile driving. Adverse fish impacts may occur due to higher levels of sound pressure from impact hammers causing potential barotrauma injury or death of fish.

Evidence impacts would be significant: The biological technical report of the DEIR (Appendix H), indicates pile driving impacts to fish and other marine life are likely to cause at least temporary impacts from lower levels of sound pressure, and in some cases may cause adverse impacts to fish related to elevated levels of sound pressure. No significant impacts to other marine life are expected with implementation of biological monitoring and buffer zones. Additionally, the DEIR states that underwater sound pressure waves could result in fish temporarily avoiding the construction area, and cause mortality of some coastal pelagic fish.

Recommended Potentially Feasible Mitigation Measure(s): CDFW recommends the Final EIR include the following to reduce the risk of adverse impacts from pile driving activities.

Recommendation #3: Additional fish impacts mitigation measures for concrete pile driving activities should be included in the Final EIR to further avoid and minimize direct impacts to marine fish, and indirect fish nursery impacts to Sweetwater Channel and the existing eelgrass ecosystem. A fish protection plan such as a Marine Fish Species Impact Avoidance and Minimization Plan (Plan) for pile construction impacts should be developed. The Plan should

include, at a minimum, the below stated mitigation measures, and include the use of the guidance from the Fisheries Hydroacoustic Working Group for setting sound pressure level safety criteria for fish resources.

Mitigation Measure #2: Underwater Noise. Feasible underwater noise dampening mitigation measures should be used for pile driving such as noise dampening blocks, air bubble curtains and/or coffer dam methodologies as applicable for concrete pile driving in addition to the proposed Project methods of soft starts and wildlife safety zones (buffers).

Mitigation Measure #3: Underwater Noise. All concrete piles should be driven with a vibratory hammer to the maximum extent feasible. If an impact hammer is required for pile driving, then underwater sound monitoring is recommended. If the hydroacoustic sound levels generated exceed the Interim Criteria for Injury to Fish (peak sound exposure level (SEL) of 206 decibels (dB) and accumulated SEL of 187 dB SEL threshold for fish over 2 grams and 183 dB for fish under 2 grams), (Interim Criteria 2008), then additional sound pressure wave mitigation is recommended to reduce the sound levels below maximum.

Mitigation Measure #4: Turbidity and Sedimentation. The DEIR indicates that the Project Proponent will use silt curtains to minimize turbidity only if turbidity monitoring results indicate a silt curtain is necessary. While we do understand this mitigation measure is somewhat protective to water quality and eelgrass, CDFW recommends that silt curtains be installed prior to, and during all pile driving activities. This mitigation recommendation is more protective for the sensitive Sweetwater Channel and eelgrass habitats that are adjacent to the proposed Project pile driving location for the new dock.

COMMENT #3: Native Eelgrass and Open Water Habitat Impacts

Issue #1: The proposed in-water portion of the Project will have potentially significant indirect impacts from shading of eelgrass cover (1.88 acres), potential eelgrass habitat (3.49 acres), and direct impacts from coverage of an undetermined area of open water habitat within Sweetwater Channel. The indirect loss of 3.49 acres of potential eelgrass habitat was identified, but not discussed in the DEIR as needing compensatory mitigation. The potential eelgrass habitat should be mitigated in addition to the 1.88 acres of eelgrass cover (See eelgrass habitat compensation measures and recommendations below).

Issue #2: The proposed Project may have additional significant adverse Sweetwater Channel soft bottom and eelgrass impacts from temporary in-water construction work, and permanent boating operation impacts for the remaining life of the Project that were not fully addressed in the DEIR.

Issue #3: The proposed Project may have additional significant adverse Sweetwater Channel soft bottom and eelgrass impacts from the proposed shellfish aquaculture facility.

Specific Impacts: As stated in the DEIR, eelgrass observed east of the Pier 32 Marina entrance within Sweetwater Channel during the 2018 eelgrass survey will be shaded and open water habitat will be covered by the proposed waterside Project. The Project Proponent proposes overwater structures to include new boat docks, boat moorings, pier platform, and shellfish aquaculture floating equipment. All overwater structures will cause reduction of open surface water habitat, and shading of channel water, eelgrass cover, potential eelgrass habitat (unvegetated), and soft bottom.

Additionally, there will be potentially permanent and temporary eelgrass impacts generated from boating and in-water construction. This may include indirect effects such as underwater noise, water turbidity, sedimentation, propellor wash, and boat wakes resulting in bank erosion. Direct effects may include physical soft bottom disturbances such as anchoring, propellor cuts, and pile driving during construction.

Shellfish aquaculture impacts: Shellfish aquaculture may permanently impact eelgrass by increasing sedimentation, turbidity, shading, and accumulation of debris underneath aquaculture equipment.

Why impacts would occur: According to the DEIR impact assessment, all the eelgrass within Sweetwater Channel will be adversely impacted by the proposed Project due to shading, and general boating activities. Eelgrass is a plant that utilizes photosynthesis for growth, and its survival depends on sunlight reaching the bottom of the Sweetwater Channel. The DEIR states there will be an assumed total eelgrass area loss of 1.88 acres based on a 2018 eelgrass survey. Most of the eelgrass exists along the shoreline where the new boat dock would be located with an additional portion of eelgrass found throughout the Sweetwater Channel where the boat moorings and aquaculture facility are proposed. Additionally, there are 3.49 acres of unvegetated, potential eelgrass habitat mapped as seen in Figure 3 of Appendix H, some of which will be permanently impacted due mainly to new overwater structure shading.

Adverse or temporary eelgrass habitat impacts may occur from in-water dock construction, mooring, and increased boating including turbidity, sedimentation, anchor and propellor cuts, and boat wake effects.

Shellfish aquaculture facilities potentially cause impacts to eelgrass growing underneath or adjacent to the facility operations. This may include indirect effects such as sedimentation, turbidity, shading, and accumulation of debris underneath aquaculture equipment all of which could displace or degrade eelgrass habitat.

Evidence impacts would be significant: The loss of 1.88 acres of eelgrass cover and 3.49 acres of unvegetated, potential eelgrass was identified in the DEIR and is considered a significant impact by CDFW. Eelgrass is a sensitive and rare habitat that is highly productive as a juvenile fish nursery, and used by adult fish and invertebrates for foraging, spawning, and shelter. Eelgrass beds are also considered a “special aquatic site” and given protections by the Clean Water Act. Additionally, the importance of eelgrass protection and restoration, as well as the ecological benefits of eelgrass, is identified in the California Public Resources Code (PRC §35630). Guidance for eelgrass impact avoidance, minimization, and compensatory mitigation as well as guidance for eelgrass mitigation banking is provided by the California Eelgrass Mitigation Policy (CEMP), (NOAA, 2014). (https://media.fisheries.noaa.gov/dam-migration/cemp_oct_2014_final.pdf).

Shellfish aquaculture facilities floating over eelgrass beds will shade the eelgrass bed below and adjacent areas which may have potentially significant impacts as indicated by the DEIR, (Appendix H). Shellfish aquaculture can have other potentially significant impacts such as generating additional benthic nutrients, eelgrass sedimentation, and equipment debris which may fall to the bottom covering eelgrass and benthic sediments. On the other hand, there can be eelgrass and water quality benefits from shellfish aquaculture.

Recommended Potentially Feasible Mitigation Measure(s): CDFW recommends incorporating the following mitigation measures and recommendations into the Final EIR to avoid and minimize the impacts to eelgrass habitats, and open water habitat.

Recommendation #4: CDFW recommends an eelgrass and open water habitat Mitigation, Monitoring and Reporting Plan (MMRP) be developed in collaboration with CDFW and other agencies and be included in the Final EIR. CDFW also recommends adding alternatives for in-water project designs which would avoid adverse impacts. CDFW also recommends that comprehensive baseline eelgrass and open water surveys be conducted and the results added to the Final EIR. Additionally, eelgrass and open water habitat mitigation site locations and alternatives should be discussed in the Final EIR. Once final designs are completed, CDFW recommends that the MMRPs and Final EIR include a habitat loss/gain analysis summary table indicating area of habitat losses, and how each loss of eelgrass, potential eelgrass habitat, and open surface water habitat will be mitigated. Prior to finalizing the MMRPs for the proposed in-water Project, a plan for avoiding Eelgrass Shading and Open Water Coverage should be developed and included in the MMRP to identify tentative habitat impact avoidance and minimization measures to be finalized prior to in-water construction.

Recommendation #5: CDFW recommends Project Alternative 2 (no in-water development) be chosen as the proposed Project to avoid the significant habitat impacts of Sweetwater Channel, a habitat area considered sensitive and of high quality by CDFW. If Project Alternative 2 is chosen, this would avoid loss of significant areas of valuable eelgrass and open shallow water habitat due to overwater structure shading and coverage. CDFW has identified this area as sensitive because of the significant area of extant eelgrass and bird foraging habitat used by sensitive birds, some of which are fully protected.

Recommendation #6: The proposed Project will likely have direct and indirect construction and operational eelgrass habitat impacts that may not show up shortly after construction. CDFW recommends at least two or more annual eelgrass monitoring and impact analysis surveys should be conducted.

Recommendation #7: If transplanting of eelgrass is required for eelgrass compensatory mitigation, a Scientific Collecting Permit (SCP) from CDFW will be required prior to harvest and transplanting activities. The SCP may include conditions such as donor bed surveys, limits on number and density of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements. Please visit the CDFW's SCP webpage for more information: https://wildlife.ca.gov/Licensing/Scientific-Collecting.

Mitigation Measure #5: Eelgrass and open water habitat impacts should be avoided, minimized, and unavoidable impacts compensated on site, and in-kind if feasible. The eelgrass MMRP and the Final EIR should include several alternative eelgrass mitigation site locations to compensate for expected losses of eelgrass cover (1.88 acres as of 2018), potential eelgrass habitat (3.49 acres as of 2018), and open water habitat. Actual losses of these habitats should be determined and compensated after construction is complete.

Mitigation Measure #6: The proposed Project should avoid and minimize the area of overwater structure covering open water habitat and shading of eelgrass beds to the maximum extent feasible. Additionally, the MMRP as recommended above, should include, at a minimum, the following mitigation measures:

- to protect Sweetwater Channel habitats from turbidity and sedimentation effects during bottom disturbing construction activity, install silt curtains around eelgrass beds as feasible. Monitor and mitigate turbidity during construction. Restrict the turbidity plume to the smallest possible area;
- locate overwater structures such as aquaculture equipment, boat moorings, docks and all barge anchoring outside of eelgrass habitat; and,
- boat mooring anchor designs and installation should include methods to avoid anchor chain scouring of the soft bottom and eelgrass over the life of the proposed Project.

COMMENT #4: Impacts from Construction of Bayshore Bike Route #1

Issue: If Route 1 is selected as the final alignment for the Bayshore Bikeway Component, construction could result in impacts to coastal salt marsh habitat and Belding's savannah sparrow.

Specific Impacts: Direct impacts on 0.03 acre of southern coastal salt marsh would potentially occur only if the Bayshore Bikeway Component Route 1 alignment were selected. These impacts would result in the potential for direct take of Belding's savannah sparrow, a California endangered CESA-listed species.

Why impacts would occur: Route 1 would be located at the far eastern edge of the proposed Habitat Buffer, directly adjacent to and above Paradise Marsh. Impacts from this route would occur partially within disturbed areas and native habitats, including coastal sage scrub and coastal salt marsh habitat.

Evidence impacts would be significant: "Endangered species" as defined by CESA means a native species that is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat or change in habitat (Fish & G. Code § 2062). Impacts to Belding's savannah sparrow habitat would likely require the Project Proponent to seek an Incidental Take Permit (ITP) through Section 2081 of the Fish and Game Code for potential impacts on Belding's savannah sparrow habitat and provide mitigation for habitat loss.

The DEIR suggests that impacts to coastal salt marsh habitat would be achieved through restoration or enhancement. The principal shortcoming of most proposed enhancement projects is that they can often result in a net loss of wetland acreage. Only through the restoration of former wetlands or through the creation of new wetlands can no-net-loss be achieved (California Coastal Commission).

Recommended Potentially Feasible Alternative: CDFW recommends incorporating the following recommendation into the EIR to avoid and minimize the impacts to Belding's savannah sparrow.

Recommendation #8: The DEIR states that Route 3 of the Bayshore Bikeway is currently the preferred route**.** Route 3 would be located primarily within disturbed areas on the eastern edge of the proposed GB Capital Component and within the western side of the proposed Habitat Buffer and would result in minimal impacts to special-status species and sensitive vegetation communities (i.e., coastal salt marsh, Diegan coastal sage scrub). CDFW recommends Route 3 be chosen as the proposed Project to avoid the potential for significant impacts to the endangered Belding's savannah sparrow, wandering skipper, yellow rail, and sensitive habitats.

General Comments

1. As discussed in CDFW's 2019 NOP comment letter, there are additional water quality and anthropogenic impacts that may be potentially significant and should be analyzed and included in the Final EIR with mitigation measures and monitoring plans proposed. These impacts may be generated from the marina expansion and the new boat docks within Sweetwater Channel. Impacts may include boat propeller wash and wake erosional effects, new lighting on boat docks/moorings, increased debris on channel bottom, and ongoing operational airborne/underwater noise and anthropogenic disturbances to wildlife related to boats moored or docked inside the channel. Additional potentially significant water quality impacts within Sweetwater Channel may include, at a minimum, the following:

    - Changes in circulation.
    - Changes in temperature and dissolved oxygen.
    - Resuspension of suspected sediment pollutants.
    - Long-term reduction in water clarity; and
    - Increased nutrient and toxic pollutant load levels from terrestrial or moored point sources.

2. According to the DEIR, Appendix H, Page 16, it is probable that some eelgrass would remain within the Project area after implementation of the boat dock, moorings, and shellfish aquaculture improvements, and any eelgrass that survives could be deducted from the final mitigation. The Appendix H also suggested any excess eelgrass not needed for mitigation could be maintained in an eelgrass bank as eelgrass credits that could then be sold or used to offset eelgrass impacts from other future projects in San Diego Bay. If the District chooses to propose an eelgrass mitigation bank, CDFW recommends that they consult with CDFW and other applicable agencies on whether this excess eelgrass could be used in a mitigation bank. Additionally, CDFW recommends going through the CDFW mitigation bank process. More information on the CDFW mitigation banking process can be found at: https://wildlife.ca.gov/Conservation/Planning/Banking/Guidelines.

3. The DEIR does not specify a final design or purpose for the proposed aquaculture facility and equipment. The DEIR describes that it will be off-bottom floating containments at the water surface and that the location would be over eelgrass habitat within the Sweetwater Channel. If shellfish aquaculture operation is proposed in the future, then the District should provide complete and detailed information about the final design, locations, purpose, and aquaculture species. Additionally, include marine resources impact avoidance and minimization mitigation measures, and discuss compensatory mitigation. CDFW recommends that the District collaborate early and often with CDFW and other agencies on appropriate designs and locations to avoid and minimize negative impacts to wildlife, and other natural habitats such as eelgrass. Additionally, a CDFW-issued aquaculture registration will be required annually for any future aquaculture operation. More information on the CDFW aquaculture permitting process can be found at: https://permits.aquaculturematters.ca.gov/Permit-Guide.

4. Disturbance of the bottom sediments from dredging and pile construction may redistribute non-native species that compete with native species. This could cause widespread adverse impacts to eelgrass and the marine ecology. The invasive algae *Caulerpa taxifolia* is listed as a federal noxious weed under the U.S. Plant Protection Act and while deemed eradicated in 2006 is monitored for potential future emergence. Another invasive algae species found recently in Newport Bay is *Caulerpa prolifera*, which is also a potential threat to growth and expansion of native eelgrass beds and other native alga. CDFW recommends including a mitigation measure detailing a pre-construction *Caulerpa spp*. survey to identify potential existence of invasive

Caulerpa spp. If any *Caulerpa spp*. are found, including *Caulerpa prolifera,* the observations should be reported to CDFW and other applicable agencies within 24 hours as described in the Caulerpa Control Protocol. https://www.fisheries.noaa.gov/west-coast/habitat-conservation/aquatic-invasive-species-west-coast.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist the District in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to (for terrestrial impacts) Meredith Osborne, Environmental Scientist, at Meredith.Osborne@wildlife.ca.gov or (for marine impacts) Loni Adams, Environmental Scientist, at Loni.Adams@wildlife.ca.gov.

Sincerely,

DocuSigned by:
David Mayer
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References

NOAA (National Oceanic and Atmospheric Administration) Fisheries, West Coast Region. 2014. California Eelgrass Mitigation Policy and Implementing Guidelines.

Fisheries Hydroacoustic Working Group. 2008. Interim Criteria for Injury of Fish Exposed to Pile Driving Operations: Memorandum. Washington: Federal Highway Administration.

California Coastal Commission: Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone, Chapter Two - An Overview of Mitigation Processes and Procedures.

Attachments

A. CDFW Comments and Recommendations

Attachment A:

CDFW Comments and Recommendations

	Recommendations/Mitigation Measures	**Timing**	**Responsible Party**
Mitigation Measure #1	Add the following additional mitigation measure to the Final EIR: To avoid temporary foraging impacts to least terns during their nesting and breeding season, conduct pile driving outside of least tern breeding and nesting season (typically between April 1st and September 15th). If the Least tern nesting season cannot be avoided, then CDFW has further recommendations below.	Prior to release of the EIR	The District
Mitigation Measure #2	Underwater Noise. Feasible underwater noise dampening mitigation measures should be used for pile driving such as noise dampening blocks, air bubble curtains and/or coffer dam methodologies as applicable for concrete pile driving in addition to the proposed Project methods of soft starts and wildlife safety zones (buffers).	During construction	Project Proponent
Mitigation Measure #3	Underwater Noise. All concrete piles should be driven with a vibratory hammer to the maximum extent feasible. If an impact hammer is required for pile driving, then underwater sound monitoring is recommended. If the hydroacoustic sound levels generated exceed the Interim Criteria for Injury to Fish (peak sound exposure level (SEL) of 206 decibels (dB) and accumulated SEL of 187 dB SEL threshold for fish over 2 grams and 183 dB for fish under 2 grams), (Interim Criteria 2008), then additional sound pressure wave mitigation is recommended to reduce the sound levels below maximum.	During construction	Project Proponent
Mitigation Measure #4	Turbidity and Sedimentation. The DEIR indicates that the Project Proponent will use silt curtains to minimize turbidity only if turbidity monitoring results indicate a silt curtain is necessary. While we do understand this mitigation measure is somewhat protective to water quality and eelgrass, CDFW recommends that silt curtains be installed prior to, and during all pile driving activities. This mitigation recommendation is more protective for the sensitive Sweetwater Channel and eelgrass habitats that is adjacent to the proposed Project pile driving location for the new dock.	Prior to construction	Project Proponent

Mitigation Measure #5	Eelgrass and open water habitat impacts should be avoided, minimized, and unavoidable impacts compensated on site, and in-kind if feasible. The eelgrass MMRP and the Final EIR should include several alternative eelgrass mitigation site locations to compensate for expected losses of eelgrass cover (1.88 acres as of 2018), potential eelgrass habitat (3.49 acres as of 2018), and open water habitat. Actual losses of these habitats should be determined and compensated after construction is complete.	Prior to release of the EIR During/after construction	The District and Project Proponent
Mitigation Measure #6	The proposed Project should avoid and minimize the area of overwater structure covering open water habitat and shading of eelgrass beds to the maximum extent feasible. Additionally, the MMRP as recommended above, should include, at a minimum, the following mitigation measures: • To protect Sweetwater Channel habitats from turbidity and sedimentation effects during bottom disturbing construction activity, install silt curtains around eelgrass beds as feasible. Monitor and mitigate turbidity during construction. Restrict the turbidity plume to the smallest possible area. • Locate overwater structures such as aquaculture equipment, boat moorings, docks and all barge anchoring outside of eelgrass habitat. • Boat mooring anchor designs and installation should include methods to avoid anchor chain scouring of the soft bottom and eelgrass over the life of the proposed Project.	Prior to release of the EIR Before construction	The District and Project Proponent
Recommendation #1	Add the following additional in-water construction protection measures to the Final EIR: To further avoid and minimize impacts to fully protected and federal or state endangered species, add a least terns and Brown pelican safety zone monitoring and avoidance plan. Each bird species should have mitigation measures specified that will avoid or minimize in-water construction impacts.	Prior to release of the EIR	The District
Recommendation #2	To avoid impacts to least tern foraging, marine life, and their habitat, CDFW recommends choosing a feasible Sweetwater Channel waterside development project alternative which will reduce impacts below the level of	Prior to release of the EIR	The District

	significant or choose Alternative 2, described in the DEIR, to avoid coverage and shading of open water habitat. The focus for Sweetwater Channel regarding locally sensitive and fully protected birds should include avoidance of take and avoidance and minimization of foraging habitat impacts. This would include avoiding and minimizing surface water losses, overwater shading of eelgrass, as well as boating and marina impacts discussed below. Additionally, it is important to avoid and minimize impacts related to live aboard noise, night lighting, and unauthorized boat landings on the bird nesting and Refuge areas. The DEIR identifies Project Alternative 2 as the "no water side development" alternative to avoid all degradation and losses of eelgrass and open water foraging habitat.		
Recommendation #3	Additional fish impacts mitigation measures for concrete pile driving activities should be included in the Final EIR to further avoid and minimize direct impacts to marine fish, and indirect fish nursery impacts to Sweetwater Channel and the existing eelgrass ecosystem. A fish protection plan such as a Marine Fish Species Impact Avoidance and Minimization Plan (Plan) for pile construction impacts should be developed. The Plan should include, at a minimum, the below stated mitigation measures, and include the use of the guidance from the Fisheries Hydroacoustic Working Group for setting sound pressure level safety criteria for fish resources.	Prior to release of the EIR	The District
Recommendation #4	CDFW recommends an eelgrass and open water habitat Mitigation, Monitoring and Reporting Plan (MMRP) be developed in collaboration with CDFW and other agencies and be included in the Final EIR. CDFW also recommends adding alternatives for in-water project designs which would avoid adverse impacts. CDFW also recommends that comprehensive baseline eelgrass and open water surveys be conducted and the results added to the Final EIR. Additionally, eelgrass and open water habitat mitigation site locations and alternatives should be discussed in the Final EIR. Once final designs are completed, CDFW recommends that the MMRPs and Final EIR include a habitat loss/gain analysis summary table indicating area of habitat losses, and how each loss of	Prior to release of the EIR	The District

	eelgrass, potential eelgrass habitat, and open surface water habitat will be mitigated. Prior to finalizing the MMRPs for the proposed in-water Project, a plan for avoiding Eelgrass Shading and Open Water Coverage should be developed and included in the MMRP to identify tentative habitat impact avoidance and minimization measures to be finalized prior to in-water construction.		
Recommendation #5	CDFW recommends Project Alternative 2 (no in-water development) be chosen as the proposed Project to avoid the significant habitat impacts of Sweetwater Channel, a habitat area considered sensitive and of high quality by CDFW. If Project Alternative 2 is chosen, this would avoid loss of significant areas of valuable eelgrass and open shallow water habitat due to overwater structure shading and coverage. CDFW has identified this area as sensitive because of the significant area of extant eelgrass and bird foraging habitat used by sensitive birds, some of which are fully protected.	Prior to release of the EIR	The District
Recommendation #6	The proposed Project will likely have direct and indirect construction and operational eelgrass habitat impacts that may not show up shortly after construction. CDFW recommends at least two or more annual eelgrass monitoring and impact analysis surveys should be conducted.	After construction	Project Proponent
Recommendation #7	If transplanting of eelgrass is required for eelgrass compensatory mitigation, a Scientific Collecting Permit (SCP) from CDFW will be required prior to harvest and transplanting activities. The SCP may include conditions such as donor bed surveys, limits on number and density of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements. Please visit CDFW's SCP webpage for more information: https://wildlife.ca.gov/Licensing/Scientific-Collecting.	During/after construction	Project Proponent

Recommendation #8	The DEIR states that Route 3 of the Bayshore Bikeway is currently the preferred route**.** Route 3 would be located primarily within disturbed areas on the eastern edge of the proposed GB Capital Component and within the western side of the proposed Habitat Buffer and would result in minimal impacts to special-status species and sensitive vegetation communities (i.e., coastal salt marsh, Diegan coastal sage scrub). CDFW recommends Route 3 be chosen as the proposed Project to avoid the potential for significant impacts to the endangered Belding's savannah sparrow, wandering skipper, yellow rail, and sensitive habitats.	Prior to release of the EIR	The District and Project Proponent