Staff Report

TO: Board of Harbor Commissioners

FROM: John Moren, Director of Operations
THRU: James B. Pruett, General Manager

DATE: October 21, 2020

SUBJECT: Surfers Beach Restoration Pilot Project – Eelgrass Mitigation Update and Proposal

Requested Action/Issue:
Receive a presentation from consultants on the Pillar Point Harbor-Wide Eelgrass Management and Mitigation Plan associated with the Surfers Beach Restoration Pilot Project. Consider proposals for engineering and design and other planning costs for Surfers Beach Project and required eelgrass mitigation efforts. Approve increase in Capital Expenditure Appropriations of $137,900 to be funded by available working capital.

These costs include (not to exceed):

1. $121,400 to ESA to complete design and engineering for Surfers Beach and eelgrass mitigation in Pillar Point Harbor (PPH) and prepare a Monitoring and Adaptive Management Plan.
2. $4,000 to Marine Taxonomic Services for biological consulting support to the PPH Eelgrass Mitigation Project planning.
3. Up to $12,500 to prepare a Sampling and Analysis Plan and conduct sediment sampling and analysis at the proposed eelgrass mitigation and sediment borrow sites (vendor TBD).

Recommended Motion:
Motion: Approve increase in Capital Expenditure Appropriations of $137,900 to cover anticipated engineering and planning costs for the Surfers Beach Restoration Pilot Project and required eelgrass mitigation efforts at Pillar Point Harbor.

Policy Implications:
Consistent with the District's goal to use excess sediment build-up from within the Harbor for beneficial re-use on Surfers Beach and responsibility to conduct maintenance dredging in the East Basin of PPH.

Background:
The goal of the Surfers Beach Restoration Pilot Project is to remove sediment which has built up inside the PPH outer breakwater and move it to Surfers Beach for beneficial re-use. In addition to addressing coastal erosion and public access issues at Surfers Beach, this project would also address the impacts to vessel navigation and anchoring associated with the shoaling that has occurred inside of the Harbor since the outer

breakwater was constructed. The anticipated outcome is that the project will address impaired public access/recreational impacts and damages from coastal storms.

Figure 1. Photo showing the proposed Surfers Beach placement area

The ESA/Damitz team has prepared permitting-level and draft engineering design documents for the Project that were presented to a Technical Advisory Committee (TAC) composed of local, state and federal agency staff, including the District, City of Half Moon Bay, San Mateo County, California Department of Fish and Wildlife, California Coastal Commission, California Department of Transportation, U.S. Army Corps of Engineers, and Greater Farallones National Marine Sanctuary. The outcome was a preferred approach for design and construction of the project using a suction dredge and pumping system to transport a sand slurry via pipeline from the Pillar Point Harbor to Surfers Beach. ESA then developed a permit-level design that was used by Damitz for preparation of permit applications and consultations with the permitting agencies.

The Project planning phase, while close to being complete, has encountered some noteworthy delays during the past year. In August 2019, a baseline eelgrass survey was completed for the project area, as required by permit agencies. During this survey, it was discovered that there are significant eelgrass beds that have recently established in the proposed Project dredging footprint, due to the shoaling caused by the PPH outer breakwaters. A subsequent Harbor-wide eelgrass survey was then completed for the

Project in November 2019 to accurately assess the extent of eelgrass beds throughout PPH. This follow up survey mapped a total of 5,712 square meters of eelgrass habitat, with 4,258 square meters occurring in the Harbor's east basin (see Figure 2 below).

Figure 2. November 2019 PPH Harbor-wide Eelgrass Survey Results

Following the discovery of eelgrass, the ESA Project engineering team and consultant Damitz assessed options for dredging sand for the Surfers Beach project while avoiding the eelgrass habitat, however it was determined that it would not be possible to obtain anywhere near the target of 75,000 cubic yards of sand for the Project. Furthermore, with the continued shoaling in this part of the Harbor, if no action is taken, the eelgrass will likely continue to expand throughout the PPH east basin, making it much more difficult to obtain permitting approval for any future dredging in the east basin.

Since the existence of eelgrass means that any future dredging of this area (including for the Surfers Beach Project or routine boat launch ramp maintenance dredging) would require mitigation for the eelgrass that is impacted, District staff and consultant Brad Damitz made the decision to move forward with the development of an eelgrass mitigation plan for PPH. Damitz subcontracted with Marine Taxonomic Services, Ltd. to prepare an eelgrass mitigation plan and ESA subcontracted out eTrac, Inc. to conduct a

harbor-wide bathymetry survey to acquire data that would be used for the development of this mitigation plan. Part of this October 2020 funding request is intended to replenish funding in ESA's design task budgets that were used to cover the cost of the survey and other unanticipated eelgrass mitigation-related efforts that they were directed by the District and Damitz to complete. This includes a series of assessments and evaluations required by permitting agencies for eelgrass mitigation planning. These unanticipated efforts, completed by ESA, were needed to determine whether the Project could move forward without impacts or whether additional steps would be needed to address impacts to eelgrass, and ultimately used budget that was originally allocated for development of final engineering design for the Project.

A Pillar Point Harbor Eelgrass Management and Mitigation Plan (Plan) was finalized in September 2020. This Plan proposes to establish a large (29,000 square meter) "platform", by cutting and filling an area off of the West Breakwater in the Harbor's west basin, identified in the Plan, to establish a -1' MLLW depth, which was determined to be an optimal depth for eelgrass growth in this area (see Figure 3). In addition to cutting/filling at the mitigation site, the mitigation entails dredging and importing additional sediment from another site in PPH and placing the sediment at this area in the West Basin identified in the Eelgrass Management Plan. The proposed plan is to obtain this material from off of the PPH Boat Launch Ramps, since there is an existing need for periodic maintenance dredging in this area to maintain usability of the ramps. Additional sediment sampling will need to occur at the ramps to assess the suitability of that material for use in constructing the mitigation platform.

Meetings were held with staff from Army Corps of Engineers, Regional Water Quality Control Board, California Coastal Commission and National Marine Fisheries Service, to obtain input prior to the mitigation plan development process. On 9/01/2020, staff from these agencies were convened to present and solicit input on the proposed mitigation concept. The agencies, overall, were supportive of the concept and indicated that it is something that the District could obtain permits for and implement.

Due to the large volume of eelgrass beds that require mitigation, and subject to the requirements and guidelines in the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP), the proposed eelgrass mitigation concept involves implementing a fairly large construction project necessary to establish the large platform by excavating the shallow areas of the site and filling the deeper areas, as well as dredge and import addition fill from elsewhere in PPH (see Figure 3 below for conceptual plan). In addition to construction and monitoring costs it will also require engineering services to prepare final plans for the construction of the mitigation site as well as some additional analyses including sediment sampling and analysis. The Board of Harbor Commissioners, at their October 2020 meeting will consider approval of funding for the required engineering and other soft costs for completing construction plans. Once plans are developed and permits acquired, the Board would also need to approve funding for construction of the mitigation platform and transplanting of eelgrass,

as well as monitoring costs associated with the 5 years of monitoring required by the CEMP.

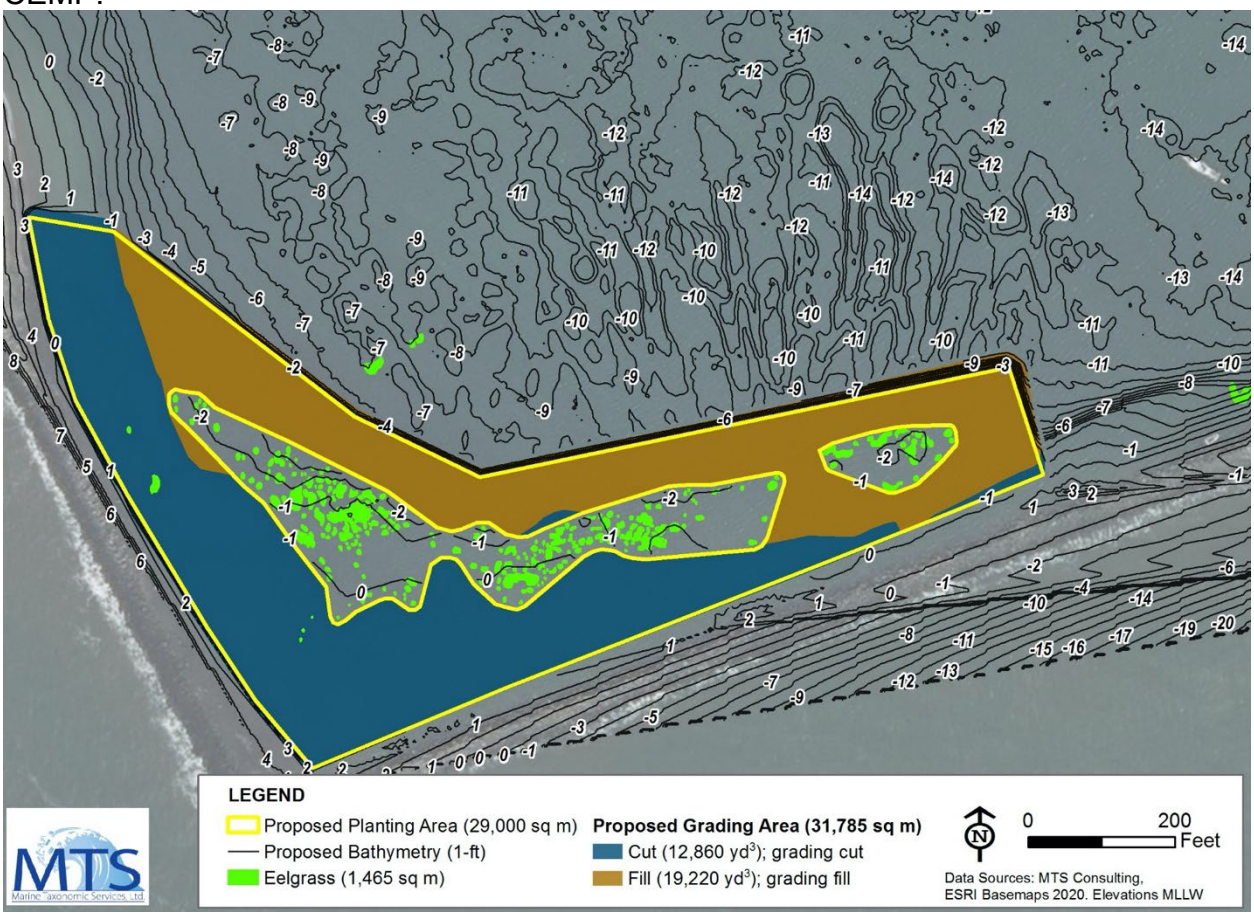

Figure 3. Conceptual plans for proposed eelgrass mitigation adjacent to West Breakwater

There is an urgency to initiate the eelgrass mitigation as soon as possible due to the existing extent of the eelgrass and the fact that the eelgrass will likely continue to spread with the ongoing shoaling in the east basin to the point where it will no longer be possible to mitigate for the expanded eelgrass within PPH. The current plan is to initiate the eelgrass mitigation work in Spring 2021 so that Surfers Beach Project construction could occur in Summer 2021. In order for that to happen, the Board would need to approve the mitigation project and the District would need to obtain the required permits and regulatory approvals. Additional work that needs to be completed for Project planning includes submission of permit applications, finalizing of dredging and engineering plans, completion of CEQA process and required surveys and analyses, and initiation of the bid process and hiring of a contractor.

Recommended Motion:

Motion: Approve increase in Capital Expenditure Appropriations of $137,900 to cover anticipated engineering and planning costs for the Surfers Beach Restoration Pilot Project and required eelgrass mitigation efforts at Pillar Point Harbor.

Attachments:

1. Surfers Beach Project PPT Update Presentation
2. Pillar Point Harbor-Wide Eelgrass Management and Mitigation Plan
3. ESA Proposal, Surfers Beach Restoration Pilot Project/PPH Eelgrass Mitigation
4. MTS Proposal for PPH Eelgrass Mitigation Biological Consulting