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Staff:	MV-LB
Staff Report:	2/28/2024
Hearing Date:	3/14/2024

STAFF REPORT: REGULAR CALENDAR

Application No.:	5-23-0409
Applicant:	Huntington Beach Wetlands Conservancy John Villa, Executive Director
Agents:	Emily Beck, Moffatt & Nichol
Location:	Adjacent to and inland of Pacific Coast Highway and immediately upcoast of the Santa Ana River, nearest cross streets are Brookhurst Street and Pacific Coast Highway; Huntington Beach, Orange County APNs 114-160-72, -73, -74
Project Description:	Restoration within Talbert Marsh including measures to address erosion that has degraded marsh habitat along the southeastern shoreline and on the west bank of South Island within Talbert Marsh. Proposed work includes placement of fiber mat, filter fabric, cobble, gravel, soil or gravel sills, coir logs, and marsh plantings and non-native plant removal. Talbert Marsh is a part of the Huntington Beach Wetlands Complex located adjacent to and inland of Pacific Coast Highway, in southern Huntington Beach.
Staff Recommendation:	Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The project is proposed as a pilot wetlands restoration project in Talbert Marsh. Currently, areas within the marsh are eroding. As these areas erode, coastal salt marsh vegetation disappears, leaving behind unvegetated mud flats. Although the proposed project will include fill of wetlands, the filled area will remain intertidal habitat and so there will be no decrease in wetland area. No conversion of wetland area to uplands will occur. Rather, the proposed project would restore the area along the southeastern shoreline that is currently unvegetated mudflats back to the vegetated coastal salt marsh habitat that was present prior to erosive events. The proposed project will also restore area on South Island shoreline that had provided refugia for sensitive bird species. This project is proposed to address the erosive process that is leading to this loss of sensitive habitat. It is expected to restore 0.04 acre of vegetated wetland area and bird refugia that has been lost. If the erosion is not addressed, it is expected to continue eroding the marsh shorelines, removing higher quality habitat and leaving lower quality, unvegetated mudflats in its place. If the erosion continues to be unaddressed, more and more higher quality habitat will continue to be lost.

The project is located in two areas within Talbert Marsh, the southeastern shoreline (Phase 1) and the western shoreline of South Island (Phase 2) (**Exhibit 6**). The project phases refer to location, not timing. All work is proposed concurrently. Work in Phase 1 will include placement of fill, placement of sediment retention devices, and planting of coastal salt marsh vegetation. All plantings will be sourced from within the Huntington Beach Wetlands Complex (Talbert, Brookhurst, and Magnolia Marshes). Work in Phase 2 will include placement of fill and placement of sediment retention devices as needed to arrest erosion and establish increased sensitive bird refugia along the South Island's western shoreline. To access the Phase 1 and Phase 2 locations, a six foot wide construction access path is proposed through Talbert Marsh uplands. The proposed path will follow a degraded asphalt road that has been overtaken by vegetation. Much of the proposed path's footprint is occupied by ruderal non-native vegetation. However, coastal dune vegetation is present within the footprint as well (**Exhibit 6**). The area of the construction access path will be revegetated with seeds of native coastal dune species. The seeds will be collected from the adjacent dune habitat prior to commencement of construction. In addition, monthly non-native plant removal will occur within the construction path area following completion of Phases 1 and 2. The proposed project includes Biological Monitoring of the revegetation of the Phase 1 and construction access path areas. **Special Condition 1** requires the revegetation monitoring to occur as proposed with a few modifications.

To address the erosion problem and to retain sediment that will support the revegetation of coastal salt marsh and establishment of expanded bird refugia, the proposed project will place fill within the wetlands. The proposed project will implement various measures intended to retain the imported sediment in place (**Exhibit 4**). These measures include placement of natural filter fabric, natural coconut fiber rolls, coir logs, gravel sills, gravel berms, and wooden stakes to secure these materials in place where needed. Proposed

Phase 1 revegetation will also help retain sediment in that area. The gravel sills will be composed of coir rock bags and jute twine. Coir logs and sills will be both placed individually and stacked as needed. Coir logs will be composed of 100% biodegradable plant-based materials. All stakes will be removed once the coir logs are degraded and/or vegetation has established. The proposed project includes a Physical Monitoring Plan to address the effectiveness of the measures intended to arrest erosion. Arresting erosion is necessary to retain higher quality marsh habitat. **Special Condition 3** requires the Physical Monitoring Plan to be implemented as proposed.

The sediment fill material will be sourced from the adjacent Santa Ana River, which historically was connected to Talbert Marsh. The source location is inland of the coastal zone. Fill materials will include cobble (in the Phase 1a area only), gravel (up to a maximum diameter of three inches), and sediment. The river materials have been tested for consistency with the National Oceanic & Atmospheric Administration (NOAA) Screening Quick Reference Table (SQUIRT). SQUIRT provides guidelines which are used to screen sediments for contaminant concentrations that might cause adverse biological effects and to identify sediments for further toxicity testing. The testing revealed that the sediments are suitable for deposition in Talbert Marsh. **Special Condition 4** requires that, as proposed, only sediment consistent with the SQUIRT testing guidelines be placed within Talbert Marsh. **Special Condition No. 4** also prohibits use of onsite dunes as a source of fill material and limits the size of rock that may be used with the project, both of which are consistent with the project as proposed.

Talbert Marsh is part of the Huntington Beach Wetlands Complex, which also includes Brookhurst and Magnolia Marshes. The applicant, the Huntington Beach Wetlands Conservancy (HBWC) is a 501(c)3 non-profit organization founded in 1985 with the goal to acquire, restore, and protect the coastal wetlands of Huntington Beach. The HBWC owns and maintains the Huntington Beach Wetlands Complex. Since its formation, HBWC has successfully restored Talbert, Brookhurst and Magnolia marshes (**Exhibit 1b**).

As a 501(c)3 non-profit organization, HBWC is requesting a fee waiver for this habitat restoration project pursuant to Coastal Act Section 30620(c)(3). Coastal Act Section 30620(c)(3) states that the Commission give extra consideration for a fee waiver to private 501(c)3 non-profit organizations, such as HBWC, when a permit is required for a habitat restoration project, such as the proposed project. Section13055(h)(1) of Title 14 of the California Code of Regulations directs the Executive Director to waive the CDP application fee when requested by resolution of the Coastal Commission. The fee waiver motion is on page 6 of this report. Staff recommends that the Commission approve the fee waiver. However, if the Commission determines that a fee waiver is not appropriate, **Special Condition No. 8** requires payment of the application fee prior to issuance of the CDP.

As proposed, the project will not occur during Belding's savannah sparrow breeding season (February 15 to July 15) or during California least tern breeding season (April –

August). That is, no work will occur between February 15 through August 31. And, also as proposed, a qualified biologist is to be on site during all significant construction activities and a minimum of three times per week to ensure protection of bird species, among other reasons. To ensure that these measures are carried out as proposed, **Special Condition No. 2** requires that they be implemented as proposed.

Special Condition No. 5 requires the applicant to comply with all requirements and mitigation measures from the Regional Water Quality Control Board and the United States Army Corps of Engineers, with respect to preservation and protection of water quality and marine and terrestrial environments. **Special Condition No. 5** also makes the applicant aware that if either of these agencies require changes to the project as approved by the Commission, these changes must be submitted to the Executive Director in order to determine if an amendment to the approved permit is required. **Special Condition No. 6** requires implementation of construction Best Management Practices (BMPs) to protect water quality.

The site is located adjacent to Talbert Marsh Multi-Use Public Access Path and the Santa Ana River Trail bicycle and pedestrian path. Construction access is proposed along the Talbert Marsh Multi-Use path. **Special Condition No. 7** requires the applicant to implement the Public Access Plan as proposed which will assure that public access is maximized during construction.

This same project was previously proposed and approved with conditions via CDP application 5-20-0348 (HBWC). However, that permit expired before the permit was issued. No condition compliance had occurred prior to expiration. The currently proposed project is the same as the original project except that the special conditions of the prior approval have largely been incorporated into the current project.

Staff is recommending approval of the proposed development subject to eight special conditions to assure consistency with Coastal Act policies regarding protection of wetlands, ESHA, water quality, and public access. Commission staff recommends that the Commission **APPROVE** Coastal Development Permit application 5-23-0409 as conditioned. The motion is on page 6. The standard of review is Chapter 3 of the Coastal Act.

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EXHIBITS

I. CDP MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit 5-23-0409 pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

The Commission hereby approves the Coastal Development Permit for the proposed project and adopts the findings set forth below on grounds that the development, as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. FILING FEE WAIVER MOTION AND RESOLUTION

Motion:

I move that the Commission direct the Executive Director to waive the permit application fee for Coastal Development Permit Application No. 5-23-0409 from the Huntington Beach Wetlands Conservancy pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution Directing Fee Waiver:

The Commission hereby directs the Executive Director to waive the permit application fee for Coastal Development Permit Application No. 5-23-0409 submitted by the Huntington Beach Wetlands Conservancy.

III. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration**. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation**. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment**. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land**. These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicant to bind all future owners and possessors of the subject property to the terms and conditions.

IV. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. Final Biological Monitoring Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, a revised Biological Monitoring Plan in substantial conformance with the Biological Monitoring Plan prepared by Tidal Influence, LLC, dated June 2023, the Biological Resources Report, prepared by Tidal Influence, LLC, dated June 2020 (Revised July 2023), and with the project description included in the 11/6/2023 submittal by Moffat & Nichol on behalf of the Huntington Beach Wetlands Conservancy, except as modified by the changes identified below. The revised Biological Monitoring Plan shall be prepared by a qualified professional with expertise in coastal salt marsh habitats (Project Ecologist). The final Biological Monitoring Plan shall include the modifications described below. (Additions to existing language are shown in **bold, underline**; deletions to existing language are shown in ~~strike-through~~).

1.The Biological Monitoring Plan shall include confirmation that any propagules (seeds, cuttings, containers) used in the restoration project shall

be derived from within the Huntington Beach Wetlands Complex, consistent with the proposed project description dated 11/6/2024.

2. The Camissoniopsis lewisii mitigation measures identified in the Technical Memorandum, prepared by Tidal Influence, dated July 20, 2020, titled Talbert Marsh Living Shoreline Project Special Status Species Impact Analysis for Camissoniopsis lewisii, including but not limited to, pre- and post-construction focused surveys, pre-construction seed gathering, appropriate seed storage, post-construction seed planting, and monitoring, shall be incorporated into the revised Biological Monitoring Plan and carried out as proposed.

3. The Biological Monitoring Plan shall include confirmation that any hay that is used shall be sterile hay to assure that no undesirable plants are inadvertently introduced into the marsh habitat, consistent with the proposed project description dated 11/6/2024.

4. The Biological Monitoring Plan shall include a written description of Best Management Practices that may be implemented to avoid the recruitment or spread of non-native invasive species, as referenced in Section 3.0 Biological Monitoring (as modified in subsection 6, below).

5. Add the following language in Section 3.2 Construction Access Path Monitoring:

a) In the paragraph at the top of page 7:

Surveys will occur prior to construction (see section 3.1 Baseline Assessment Survey) and within one month after completion of the Phase 1 and Phase 2 work. Plant count and population mapping surveys will be repeated one year after completion of construction and within the appropriate survey period for *C. lewisii*. **The survey conducted within one month of completion of construction (Phase 1 and Phase 2 work) and the one-year post-construction survey will both be submitted to the Executive Director of the Coastal Commission within 60 days of completion.** All surveys will be documented in the Annual Reporting (see section 3.5 Annual Reports).

b) Add the following language between the second and third paragraphs near the top of page 7:

Pre-construction seed collection within the upland dune habitat areas shall occur; these collected seeds shall be used for the post-construction hydro-seeding and seed planting within the construction access path area. On-going, post-construction non-

native plant removal shall occur monthly for a minimum of one year.

c) Add the following language to the third paragraph near the top of page 7:

If the one-year post construction survey reveals that the habitat within the six-feet-wide construction access path has recovered to pre-construction vegetation conditions or is improved beyond pre-construction conditions (i.e., the percent cover of native coastal dune species has increased, the percent cover of non-native species has decreased, and the number of *C. lewsii* plants is equal to or greater than the number in the pre-construction survey), no further monitoring is required. However, if the one-year post construction survey reveals that the habitat within the six-foot-wide construction access path has not recovered to preconstruction conditions, a mitigation plan to address the lack of native coastal dune vegetation reestablishment shall be submitted, for the review and approval of the Coastal Commission Executive Director, within 90 days of completion of the one-year post construction survey of the area. Additional years of monitoring will be required in the mitigation plan. See also section 3.4 Performance Criteria. **The mitigation plan may require an amendment to CDP 5-23-0409 or new CDP unless the Executive Director determines that none is legally required.**

6. Add the following language to Section 3.0 Biological Monitoring Plan, in the second paragraph near the top of page 5:

The Project Ecologist will visit the site **and monitoring and maintenance shall occur** monthly for the first year, and quarterly (February, May, August, and November) each year after for a minimum of five ~~additional~~ years (from the date of complete installation) or until the project success criteria are met (see Section 3.3), whichever is longer. The monitoring schedule may shift slightly depending on environmental conditions. Best management practices will be implemented to avoid the recruitment or spread of non-native, invasive plant species. The Project Ecologist shall oversee implementation of the approved monitoring plan.

7. Add the following language to Section 3.3.3 Non-Native Vegetation Presence, beginning near the bottom of page 9:

Identifying and tracking non-native and invasive plants are important components of restoration projects and should inform adaptive management activities (see Section 3.7). During each vegetation survey, the Project Ecologist will survey the entire restoration project area for the presence of non-native vegetation, paying close attention to the presence

of non-native *Limonium* spp. If detected, non-native vegetation will be flagged, species will be recorded, and recommendations will be made for control of the **non-native** populations. Larger populations or areas of invasion may be mapped using a high-resolution GPS to track area change over time. Non-native species' presence will be recorded monthly for the first year and quarterly thereafter until the monitoring is completed. **Non-native species within the construction access road revegetation area shall be removed monthly. These activities will be included in the Annual Report (Section 3.6).**

8. Make the following change to Section 3.8 Changes to the Monitoring Plan, beginning near the bottom of page 14:

Any changes to the approved Final Biological Monitoring Plan shall be reported to the Executive Director of the California Coastal Commission. No change(s) to the approved plan shall occur without a Coastal Commission approved amendment to the Coastal Development Permit (No. **5-23-0409** ~~5-20-0348~~) amendment or an approved coastal development permit unless the Executive Director determines that none is legally required. The permittee shall undertake development in accordance with the approved final Biological Monitoring Plan unless the Commission amends this permit or the Executive Director provides written determination that no amendment is legally required for any proposed minor deviations.

B. Any changes to the approved Final Biological Monitoring Plan shall be reported to the Executive Director. No change(s) to the approved plan shall occur without a Coastal Commission approved amendment to this coastal development permit amendment or an approved coastal development permit unless the Executive Director determines that none is legally required.

C. The permittee shall undertake development in accordance with the approved final Biological Monitoring Plan unless the Commission amends this permit or the Executive Director provides written determination that no amendment is legally required for any proposed minor deviations.

2. Avoidance of Bird Breeding Season

As proposed, and by acceptance of this permit, the applicant agrees that all construction activities shall occur outside of the breeding season of the Belding's Savannah Sparrow (February 15 to July 15) and the breeding season the California Least Tern (April 1 – August 31). A qualified biologist will be onsite during all significant construction activities, and regularly throughout construction, including during initial construction establishment of the staging area and access path, during the initial periods of each work phase, and two to three times per week during the remaining construction activities. Timing of the biologist's presence is determined based on the potential for disturbance. Prior to construction, the biologist will assess and flag all

sensitive areas of the site that shall be avoided to assure protection of sensitive species. In addition, volunteers assisting in construction of the project will be accompanied by a representative of HBWC.

3. Physical Monitoring Plan

A. The permittee shall carry out the Physical Monitoring Plan as proposed in the Talbert Marsh Living Shoreline Project, Physical Monitoring Plan, prepared by Moffatt & Nichol, dated July 2023.

B. Any changes to the approved Physical Monitoring Plan shall be reported to the Executive Director. No change(s) to the approved plan shall occur without a Coastal Commission approved amendment to this coastal development permit or a new coastal development permit unless the Executive Director determines that none is legally required.

C. The permittee shall undertake development in accordance with the approved Physical Monitoring Plan unless the Commission amends this permit or approves a new coastal development permit or the Executive Director provides written determination that none is legally required for any proposed minor deviations.

4. Restoration Source Materials

A. As proposed, and by acceptance of this permit, the applicant agrees that no dune materials may be used as fill source material for this approved Talbert Marsh restoration project.

B. As proposed, and by acceptance of this permit, the applicant agrees that all sediment imported for the project for use in project Phases 1b, 2a and 2b shall not exceed three (3) inches in diameter and shall be free of trash and other anthropogenic debris. If necessary, off-site sieving, screening or other methods shall be used to separate larger grain sizes and debris from the sediment to be placed within Phases 1b, 2a, and 2b locations. In addition, all cobble used within Phase 1a shall be covered with graded fill material deemed acceptable for use per subsection C below.

C. As proposed, and by acceptance of this permit, the applicant agrees that all source materials to be placed within Talbert Marsh pursuant to this Coastal Development Permit 5-23-0409 shall meet the standards of the National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Table (SQUIRT) Guidelines (Buchman 2008) regarding chemical content and suitability for use within the coastal salt marsh environment of Talbert Marsh.

D. The permittee shall undertake development in accordance with the approved project unless the Commission amends this permit or the Executive Director provides written determination that no amendment is legally required for any proposed minor deviations.

5. Resource Agencies Approval

The permittee shall comply with all requirements and mitigation measures from the Regional Water Quality Control Board and United States Army Corps of Engineers, with

respect to preservation and protection of water quality and the marine and terrestrial environment. Any change in the approved project that may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

6. Construction Best Management Practices.

A. The permittee shall comply with the following construction-related requirements and shall do so in a manner that complies with all relevant local, state and federal laws applicable to each requirement:

(1) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave, wind, rain, or tidal erosion and dispersion;
(2) Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of the project;
(3) Construction debris and sediment shall be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters;
(4) Erosion control/sedimentation Best Management Practices (BMP's) shall be used to control dust and sedimentation impacts to coastal waters during construction. BMP's shall include, but are not limited to: placement of sand bags around drainage inlets to prevent runoff/sediment transport into coastal waters; and
(5) All construction materials, excluding lumber, shall be covered and enclosed on all sides, and as far away from a storm drain inlet and receiving waters as possible.

B. Best Management Practices (BMP's) designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity shall be implemented prior to the onset of such activity. Selected BMP's shall be maintained in a functional condition throughout the duration of the project. Such measures shall be used during construction:

(1) The permittee shall ensure the proper handling, storage, and application of petroleum products and other construction materials. These shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. It shall be located as far away from the receiving waters and storm drain inlets as possible;
(2) The permittee shall develop and implement spill prevention and control measures.

7. Public Access Plan

A. The permittee shall implement the Public Access Plan, received 11/6/2023 and augmented on 2/16/2024, as proposed.

B. The permittee shall undertake development in accordance with the approved plan unless the Commission amends this permit or the Executive Director provides written determination that no amendment is legally required for any proposed minor deviations.

8. If Fee Waiver Is Denied
If the Commission denies the request to waive the application fee, the applicant shall, **prior to issuance of the coastal development permit**, submit to the Executive Director the required fee amount of $9,884. The coastal development permit shall not be issued until the required fee is received.

V. FINDINGS AND DECLARATIONS

A. Project Description and Location

The applicant, the Huntington Beach Wetland Conservancy (HBWC), is proposing a pilot coastal salt marsh restoration project intended to stabilize portions of the marsh shoreline, in order to reduce erosion as necessary to restore and protect coastal salt marsh habitat in Talbert Marsh. Both physical and biological monitoring are proposed to assess the success of the pilot project. The total work area of the proposed project is approximately 0.2 acre. The total proposed length of the project shoreline is approximately 450 feet along the banks. If the proposed pilot project is successful, the shoreline that has been lost to erosion will be reclaimed, coastal salt marsh habitat established, and restored South Island and southeastern shoreline area made available for use by special status California least terns, Belding's savannah sparrows, western snowy plovers, and other species. Restoration on the island within the marsh will enhance refugia for these and other birds. The proposed project will use only natural materials and only the minimum amount necessary to establish and maintain the natural continuity of the land-water interface. The project will also remove non-native species from the marsh's associated upland area. The proposed project would create approximately 0.04 acres of new vegetated intertidal wetlands and would protect against future loss of vegetated coastal salt marsh.

The HBWC owns and maintains the Huntington Beach Wetlands Complex including (from downcoast to upcoast) Talbert Marsh, Brookhurst Marsh, and Magnolia Marsh (**Exhibit 1b**). The Huntington Beach Wetlands Conservancy is a 501(c)3 non-profit organization founded in 1985 with the goal to acquire, restore, and protect the coastal wetlands of Huntington Beach. Since its formation, HBWC has successfully restored Talbert, Brookhurst and Magnolia marshes.

Talbert Marsh is approximately 25 acres and is located adjacent to and inland of Pacific Coast Highway, and adjacent to and just upcoast of the Santa Ana River. To the north, it is bordered by the Talbert Flood Control Channel (which is an interconnected part of the marsh, not separated by a channel wall), and Brookhurst Street to the west. The

marsh is fed from upstream by the Talbert and Huntington flood control channels and is connected to the ocean via the Talbert ocean entrance channel. The flood control southern levee adjacent to Talbert Marsh was removed with the original restoration project in the late 1980s/early 1990s.

The currently proposed project is intended to stabilize the eroding shoreline as necessary to protect coastal salt marsh habitat. The proposed project would occur in two locations within the marsh: along the southeastern shoreline of the marsh (Phase 1) and along the west and southwest banks of South Island (Phase 2)[1] (**Exhibit 4**).

Phase 1a of the project would stabilize the erosion "hot spot" along the southeastern shoreline by installing filter fabric backing with cobble cover on the eroded slope, and the cobble will be covered with sediment fill. Terrace soil, coir logs and gravel sills wrapped in fabric will be placed on the slope. The coir logs will be secured in place with wooden stakes, and the gravel sills will be of sufficient weight to prevent relocation in all but the most extreme wave or water flow conditions. The slope will be planted with marsh species appropriate to the site.

Phase 1b of the project, along the south shoreline, will be stabilized with a fine coconut fiber mat and heavily vegetated with marsh species to secure the slope. Existing marsh vegetation will be protected in place with wide mesh natural fiber fabric. Terraced coir logs will be placed at the toe of the slope with marsh plantings and anchored in place with wooden stakes. Sediment will be placed at the toe of the slope to provide the appropriate elevations for cordgrass planting.

During Phase 2a of the project, a gravel berm will be placed along the headland on the west bank of the south island and stabilized in place with filter fabric and a combined soil and gravel sill stack at the gravel toe. The soil and gravel sills will be wrapped in natural fabric and of sufficient weight to prevent relocation in all but the most severe wave or water flow conditions.

Phase 2b involves placement of a soil/gravel sill stack or set of coir logs at the toe of the slope on the central reach of the island, assuming that sediment from the slope will collect behind the sills or logs as the slope retreats. If coir logs are used, they will be anchored in place with wooden stakes, and if gravel sills are used they will be of sufficient weight to prevent relocation.

Coastal salt marsh vegetation is proposed to be planted throughout the entire Phase 1 area. A six-foot-wide path will be created to allow construction access to the Phase 1 and 2 areas. The access path will follow an existing degraded asphalt maintenance path

[1] It is important to note that the term "phase" is used by the applicant in reference to locations, not timing. The four "phases" will occur concurrently in four locations, two on the southeastern shoreline (Phases 1a and 1b) and two on the South Island (Phases 2a and 2b).

that has been overtaken by vegetation. Much of the vegetation within this proposed construction access path is ruderal, non-native plant species. However, portions of the path will go through existing native dune scrub habitat (**Exhibit 6**). In order to off-set impacts within the construction access path, the applicant is proposing to revegetate most of the area once Phases 1 and 2 of the project are complete. A one-foot-wide path will remain within the area to allow access for post construction monitoring and maintenance of the Phase 1 and 2 areas. The revegetation will be accomplished by collecting seeds from the surrounding dune scrub habitat prior to commencement of the restoration work[2]. The collected seeds will be applied with a hydroseeder with the exception of the one-foot-wide path to remain. The one-foot-wide path will be flagged. In addition, one year of non-native weed control will be performed.

A Biological Monitoring Plan and a Physical Monitoring Plan are proposed, and discussed later in this report.

Approximately 260 feet of the total distance will be created along the southeastern shoreline (Phase 1), and approximately 190 feet will be created along the South Island shoreline (Phase 2). The entire project is a pilot project and will be monitored post-construction. If the proposed pilot project is successful, the reclaimed southeastern shoreline area (Phase 1), in addition to its goal of restoring and retaining coastal salt marsh and reestablishing habitat area for endangered California least terns, Belding's savannah sparrows, western snowy plovers and other species, would also have the added incidental benefit of protecting utility poles along the adjacent Pacific Coast Highway that may eventually become threatened if erosion is left unchecked.

The same project was proposed and approved on February 10, 2021 with conditions under CDP application No. 5-20-0348 (HBWC). However, that permit expired before the permit was issued. No condition compliance had occurred prior to expiration. The currently proposed project is the same as the original project except that the special conditions of the prior approval have largely been incorporated into the current project. Special conditions are required to make some changes to the Biological Monitoring Plan (consistent with the earlier approval of 5-20-0348 as necessary to assure protection of habitat), and to the Public Access Plan (as necessary to assure the project does not adversely impact public use of the adjacent Talbert Marsh Multi-Use Path or the Santa Ana River Trail bicycle and pedestrian Path), and to assure the rest of the project is carried out as proposed.

The proposed project requires and has received approval from the US Army Corps of Engineers, which triggers the requirement for a federal consistency review by the Coastal Commission under the Coastal Zone Management Act. If the Coastal Commission approves this CDP as recommended, that approval constitutes a determination of federal consistency for the proposed development.

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[2] Seeds to be collected from throughout the surrounding dune habitat include Atriplex canescens, Artemesia californica, Acmispon glaber, Isocoma menziesii, Encelia californica and Deinandra fasciculata.

B. Request to Waive Permit Application Fee

The applicant, the Huntington Beach Wetlands Conservancy, requests a waiver of the CDP application filing fee, calculated to be $9,884[3], required for processing of this CDP application for habitat restoration work in Talbert Marsh. The proposed development would benefit the coastal zone of California by restoring degraded areas of the marsh and installing measures to address future erosion. The proposed project is described in greater detail elsewhere in this report. Pursuant to Section13055(h)(1) of the Commission's Regulations, the Executive Director shall waive the application fee when requested by resolution of Coastal Commission. Based upon pre-submittal discussions with Commission staff, the subject application included a request to waive the application fee. The request is made based on the habitat benefits to Talbert Marsh.

Commission staff recommends that the Commission approve the fee waiver for the proposed wetland restoration project. The Huntington Beach Wetlands Conservancy is a 501(c)(3) non-profit. Coastal Act Section 30620(c)(3) states: "[t]he commission may waive the filing fee for a CDP application." Section 30620(c)(3) further states: "[w]hen considering a request for a waiver of a filing fee pursuant to this paragraph, the commission shall give extra consideration to a private nonprofit organization that qualifies for tax-exempt status under Section 501(c)(3) of the Internal Revenue Code if the permit is required for a habitat restoration project or a project to provide public access to coastal resources." In light of the Applicant's status as a 501(c)(3) non-profit and the applicant's proposed wetland habitat restoration project, Commission staff recommend that the Commission approve the fee waiver.

C. Site History

The Huntington Beach Wetlands are a relatively large area of relic salt marsh habitat associated with the Santa Ana River in south/southeastern Huntington Beach, Orange County. The Huntington Beach Wetland Complex is located in an area of the City that was formerly an area of deferred certification known as the Pacific Coast Highway Area of Deferred Certification (PCH ADC). The area was deferred certification due to then-unresolved issues regarding the protection of wetlands. The deferral was based in part on a study prepared by the California Department of Fish and Game (Determination of the Status of the Huntington Beach Wetlands, February 4, 1983), which found that functioning as well as degraded, but easily restorable, wetlands were present in the subject area. In addition, the 1983 CDFG study found environmentally sensitive upland habitat to be present in the area as well.

In 1986, the Commission approved a Land Use Plan for the PCH ADC. In 1995, the Commission approved an Implementation Plan for the area. The site is land use

[3] The CDP application indicates the total cost of development is $115,000. The project also includes 360 cubic yards of fill. The total fee then would be $8,472 (based upon cost of project) + $1,412 (grading) = $9,884

designated Open Space Conservation/Wetland and zoned Coastal Conservation in the certified LCP. The proposed restoration project is consistent with the certified land use designation and zoning. Although the area is now fully certified, because the area includes areas of tidal influence, those portions of the site are retained as being subject to the Commission's original permit jurisdiction. As described elsewhere in this staff report, the Commission is processing a single, consolidated coastal development permit for the entire project. Subsequent to certification of the LCP for the former ADC, the relic wetlands have been restored.

In 1986, the Commission approved Consistency Certification No. CC-23-86 (Caltrans) for the widening of Pacific Coast Highway from Newport Boulevard in Newport Beach to Goldenwest Street in Huntington Beach. The highway widening project included impacts to Least tern open water foraging area and to coastal dune habitat. In order to mitigate loss of open water foraging area, Caltrans included as part of the highway widening project provisions to replace equivalent foraging habitat in the area between Brookhurst Avenue and the Santa Ana River (within the Talbert Marsh area). To mitigate the loss of coastal dune habitat, Caltrans included 8.7 acres of dune restoration along the inland side of Pacific Coast Highway within the Huntington Beach wetlands.

In 1987, the Commission issued CDP 5-87-432 to the Huntington Beach Wetlands Conservancy for the restoration of Talbert Marsh. That restoration project established the Talbert Ocean Channel that allowed seawater to propagate through Talbert Marsh and the lower (downstream) mile of the Talbert and Huntington flood control channels. That restoration effort succeeded in improving tidal flushing and circulation within Talbert Marsh, establishing sensitive salt marsh habitat, as well as improving flood control in the area.

HBWC conducted a second restoration project in Talbert Marsh pursuant to CDP 5-08-061. That restoration project cleared accumulated sediment from within Talbert Marsh and created contour elevations more conducive to maintaining the tidal prism. More specifically, the second Talbert Marsh restoration project: 1) created a sediment disposal area and trap just inside of the marsh; 2) removed sand shoals within the marsh; 3) constructed an access ramp to facilitate the restoration work and ensuing maintenance; and dredging to restore the ocean inlet channel to its original design capacity. In addition, CDP 5-08-061 also resulted in restoration of the Magnolia and Brookhurst Marshes, which are also part of the Huntington Beach Wetland Complex, also owned and managed by the HBWC. These 2009 restorations allow Talbert Ocean Inlet tidal flow to propagate through Talbert, Magnolia, and Brookhurst Marshes, as well as upstream in the Talbert and Huntington flood control channels. The flood control channels are adjacent to and flow into the marshes.

The HBWC wetlands are bounded by Pacific Coast Highway and the Huntington Beach and Talbert Flood control channels and the AES generating station. Talbert Marsh and Brookhurst Marsh are separated by Brookhurst Street. Brookhurst Marsh and Magnolia Marsh are separated by Magnolia Street (**Exhibit 1b**). The total area of the Huntington Beach Wetlands is approximately 188 acres. Of that, 130 acres were restored as part of

the project approved under CDP 5-08-061. That project did not include Upper Magnolia Marsh or Newland Marsh. The Upper Magnolia Marsh was subject to a restoration project as part of a mitigation project by the City of Huntington Beach pursuant to local CDP 2008-005. Further restoration of Upper Magnolia Marsh was approved under CDP application 5-20-0072. Restoration of Newland Marsh is in the planning stage.

D. Standard of Review

The subject site is located within the coastal zone in the City of Huntington Beach. The City of Huntington Beach has a certified Local Coastal Program. Portions of the subject site are tidally influenced and thus, pursuant to Coastal Act Section 30519(b) of the Coastal Act, are in the Commission's retained permit jurisdiction. However, other portions of the site (uplands) are not tidally influenced and thus may fall under the City's jurisdiction. However, in such situations, Section 30601.3 of the Coastal Act allows the Commission to process and act upon a consolidated coastal development permit when the applicant, local government, and Commission agree to the permit consolidation. In an email dated 2/20/2024 the City of Huntington Beach agreed to the processing of this CDP application as a consolidated permit by the Coastal Commission. When the Commission acts on such a consolidated permit, the standard of review, pursuant to Section 30601.3(b), is the Chapter 3 policies of the Coastal Act, with the certified LCP as guidance. Therefore, the standard of review for the subject coastal development permit application is the Chapter 3 policies of the Coastal Act with the City's LCP as guidance.

E. Wetlands & ESHA

Section 30233 of the Coastal Act states, in pertinent part:

> (a) The diking, filling or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
>
> …
>
> (6) Restoration purposes.
>
> …
>
> (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. …

Section 30240 of the Coastal Act states:

> (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act Section 30233 limits development in wetlands. Section 30233 requires that a project that involves fill of wetlands, such as the proposed development, must meet the three-prong test: 1) the use must be one of the uses specifically allowed, 2) it must be the least environmentally damaging alternative, and 3) it must provide adequate mitigation to offset any impacts created by the project.

Section 30240 of the Coastal Act limits the types of development that may occur within and adjacent to environmentally sensitive habitat areas (ESHA) to uses that are dependent on the ESHA. The Coastal Act defines environmentally sensitive area as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

The project site contains subtidal habitat, including eelgrass, intertidal mudflats with assemblages of pickleweed marsh, mid-marsh habitat with pickleweed, and adjacent upland habitats (**Exhibit 6**). All existing eelgrass beds will be protected in place. Although the proposed project includes fill of wetland, the area will remain intertidal habitat and so there will be no decrease in wetland area. No conversion of wetland area to uplands will occur. Rather, the proposed project would restore the area that is currently intertidal, unvegetated mudflats to the intertidal vegetated salt marsh habitat that was present prior to erosive events.

The Biological Resources Report prepared for the proposed project (Tidal Influence, June 2020 (Revised July 2023)) identifies the following special status faunal species as present in the marsh or having a high likelihood of occurring:

> California least tern (Sternula antillarum browni): endangered on both federal and state levels as well as fully protected by CDFW; uses the site for foraging; there is a protected nesting site on the beach across Pacific Coast Highway from Talbert Marsh;
>
> Elegant Tern (Thalasseus elegans): not listed at the state or federal level, but is included on the California species watch list by CDFW; observed foraging in Talbert Marsh;
>
> Osprey (Pandion haliaetus): also on the California species watch list by CDFW; forages in Talbert Marsh;

Belding's Savannah Sparrow (Passerculus sandwichensis beldingi): listed as endangered by the state, is well documented throughout the Huntington Beach Wetlands;

Long-billed curlew (Numenius americanus): included on the CDFW watch list, has been observed throughout the Huntington Beach Wetlands; good foraging habitat;

Western snowy plover (Charadrius alexandrines nivosus): federally listed as threatened and a CDFW Species of Special Concern; observed in the Huntington Beach Wetlands.

In addition, the project Biological Resources Report (Report) determined the following floral species are present in the marsh or have a high likelihood of occurring:

Estuary Seablite (Suaeda esteroa): a perennial shrub designated as a CRPR 1B.2[4] species; it is found throughout the tidal portions of the Huntington Beach Wetlands including within Talbert Marsh. One individual was documented along the southern edge of the proposed project's Phase 1b area.

Woolly Seablite (Suaeda taxifolia): a perennial shrub designated as a CRPR 4.2 species, it occurs along the edges of the project boundary of the Phase 1b area and on the South Island.

Coast Woolly Heads (Nemacaulis denudate var. denudate): an annual herb designated as a CRPR 1B.2, this species is found in both Magnolia and Brookhurst Marshes, suitable habitat for this species does occur within the project area.

Lewis' Evening Primrose (Camissoniopsis lewisii): an annual herb designated by the California Plant Society as a CRPR 3 species. A population of Camissoniopsis lewisii is present within the project boundary.

Salt Marsh Bird's Beak (Chloropyron maritimum ssp. Maritimum): a hemiparasitic annual herb listed as federally and state endangered and designated as a CRPR 1B.2, the Huntington Beach Wetlands are one of 8 locations where this plant can be found, including Talbert Marsh, but none were found within the project site.

[4] CRPR (California Rare Plant Ranks) is a ranking system of the California Native Plant Society. Plants ranked CRPR 1B are rare throughout their range with the majority of them endemic to California. Most Plants ranked 1B have declined significantly over the last century. Plants ranked CRPR 4 are of limited distribution or infrequent throughout a broader area in California, and their status should be monitored regularly.

Dune scrub habitat is also present within Talbert Marsh. It is depicted on the Vegetation Alliances Map (**Exhibit 6**) as part of the Atriplex canescens and Artemesia californica Shrubland Alliances. These coastal dune habitat types are described in the Report as:

> "Atriplex canescens Shrubland Alliance (Fourwing saltbush scrub)(G5S4) – This alliance is dominated by fourwing saltbush (Atriplex canescens) with a co-dominance of a variety of dune scrub species like big saltbush (Atriplex lentiformis), deerweed (Acmispon glaber) and evening primrose (Camissonipsis spp.). This alliance occurs within a restored dune habitat area and can also support non-native upland grasses and forbs. This alliance is found entirely above the tidal reaches of the site and overlaps with the proposed access path.
>
> Artemisia californica Shrubland Alliance (California sagebrush scrub)(G5S5) – This alliance is dominated by California sagebrush (Artemisia californica) with a co-dominance of a variety of coastal sage scrub species like bush sunflower (Encelia californica), deerweed (Acmispon glaber) and Menzies' goldenbush (Isocoma menziesii). This alliance occurs within a restored dune habitat area and can also support nonnative upland grasses and forbs. This alliance is found entirely above the tidal reaches of the site and overlaps with the proposed access path."

Regarding Talbert Marsh, the Huntington Beach Wetlands Conservancy's website states: "Around 90 species of birds have been observed at Talbert Marsh and the other adjoining Huntington Beach wetlands. In addition to year round residents, thousands of birds use the Huntington wetlands as a rest stop during their long migrations along the Pacific flyway from their nesting grounds in the Arctic to their wintering grounds in South America."[5]

These species and habitat types are sensitive and play a valuable role in the coastal salt marsh and related upland habitats. Moreover, as reflected by their listing as rare, sensitive and/or protected species, they are easily disturbed or degraded by human activities or development. Given the presence of a number of special status species, as well as the significance of coastal salt marsh and associated upland habitats, the entire project site constitutes ESHA. In addition, as coastal salt marsh, it also includes areas of wetland. Thus, the proposed development must be reviewed for consistency with Coastal Act Sections 30233 and 30240.

Erosion

Coastal salt marsh habitat has been eroding area within the proposed project footprint. Erosion Assessments were prepared to determine the extent and possible cause(s) of the erosion and to improve the understanding of the existing processes that may bear on potential solutions (Final Talbert Marsh Erosion Assessment, Moffatt & Nichol, 12/9/2019 and Talbert Marsh Updated Erosion Memo (2023), 7/21/2023). These

[5] http://www.hbwetlands.org/whatwedo.php

assessments focused on the eastern half of the marsh as the western half does not appear to be eroding. The proposed project includes addressing erosion of the South Island (Phase 2). The South Island has eroded along its western and southern shores by several feet and is continuing to retreat. The HBWC prefers to retain as much of the South Island as possible for bird refugia and thus seeks to minimize erosion of the island over time. Similarly, the HBWC prefers to retain coastal salt marsh along the southeastern shoreline (Phase 1) to retain higher quality intertidal salt marsh habitat. The fill and retention measures proposed for this area are intended to both arrest erosion and establish elevations suitable for intertidal salt marsh plants.

The 2023 erosion assessment update compared high-resolution 2019 aerial imagery to high-resolution 2023 imagery. Using GIS tools, the top of the shoreline banks were digitized, and an updated erosion rate was calculated from the 2019 and 2023 imagery. A site investigation by the consultant confirmed the findings of the aerial imagery comparisons. The Erosion Assessment Update found:

> "The calculated average erosion rate at the south island (from 2019 to 2023) is approximately 1.6 ft/year, with the greatest erosion occurring at the middle portion of the western shoreline. The average erosion rate at the mainland southern shoreline (from 2019 to 2023) is 0.9 ft/year, with the greatest erosion occurring at the far eastern end near the rock revetment."

The updated erosion rate represents an increase from the average erosion rate determined in the 2019 erosion study. The 2019 study found the erosion rate to be on the order of 0.4 ft/year for both areas. The Erosion Assessment Update concludes that the causes of erosion at Talbert Marsh include high tidal velocity, high fluvial (storm) flow velocity, ocean swell induced erosion, and wind-wave erosion. The Assessment Update also concludes that the "[e]rosion problems are isolated in location and can be addressed by local implementation of measures that reduce ocean swell wave and wind wave erosion."

Erosion is occurring and is significant at the site under existing conditions. Erosion of the southeastern shoreline (Phase 1) and South Island (Phase 2) is causing loss of wetland habitat and creating upland land loss that threatens the adjacent coastal dune and sage habitat. The proposed project aims to address these erosion issues as necessary to restore coastal salt marsh habitat and to retain refugia for sensitive bird species. To address the on-going erosion, the HBWC is proposing this restoration project to preserve eroding areas within the marsh. The proposed project is intended to protect from existing erosion conditions and inform the HBWC about how effective the approach is so that it can be continued and/or adapted. The proposed project is proposed to reduce erosion and further loss of marsh surface by mitigating the force of wind waves and ocean swell on the shorelines. The project is also expected to expand the area of marsh habitat and increase sediment accretion at the site. Preservation of the areas subject to erosion is necessary to preserve and restore wetland coastal salt marsh habitat and bird refugia.

Project Impacts

The Biological Resources Report prepared for the proposed project by Tidal Influence, June 2020 and as updated June 2023 (Report) finds:

> "Overall, the installation of a living shoreline [the nature-based adaptation strategy proposed to address habitat erosion in the marsh] in this portion of Talbert Marsh will result in improvements to existing biological resources. Not only will this project eliminate the erosive process that is leading to the loss of vegetated salt marsh, but it will also increase vegetated wetlands by 0.04 acres, most of which will be composed of cordgrass marsh. However, the creation of an access path necessary to transport materials and equipment will result in temporary impacts to biological resources."

Overall, the proposed restoration project is expected to result in improvements to habitat within Talbert Marsh. The proposed work within the marsh is intended to reclaim shoreline that has been lost to erosion. In Phase 1 (southeastern shoreline) the proposed fill and retention measures will allow vegetation to be re-established by planting coastal salt marsh plants in an area that, as a result of erosion, has become unvegetated mudflats. Proposed reclamation of eroded area in Phase 2 (South Island) will expand bird refugia, compared to the currently eroded area, by retaining and increasing area available for use by special status California least terns, Belding's savannah sparrows, western snowy plovers, and other species, which are present within the area. In comparison, the second island in the eastern marsh (North Island) has experienced significant erosion and is now separated into two smaller island relics (**Exhibit 9a**). One is nearly completely eroded, and the other is eroding but still visible under most water level conditions. The South Island has not eroded to the same degree but is retreating. The goal of the project is to address erosion in the marsh such that higher quality intertidal habitats can be maintained over time. However, the proposed project will impact upland dune habitat, as discussed below.

Coastal Salt Marsh

Coastal salt marsh vegetation is proposed to be planted throughout the entire Phase 1 area. All propagules used for this planting will be sourced from within the Huntington Beach Wetlands. The Phase 1 area will be divided into low marsh and mid-marsh plantings. The low marsh planting will be composed entirely of Pacific cordgrass (Spartina foliosa) plugs sourced from several existing mature cordgrass meadows found in Talbert and Brookhurst Marshes. No more than 10% of any mature cordgrass meadow will be sourced and no sourcing will occur along the four feet of the exterior edge of any sourced meadow. Approximately five hundred plugs of cordgrass measuring 2-4 inches in diameter will be required to stabilize the low marsh elevations and allow for full colonization within 2 years. Some cordgrass plugs will be installed directly into the freshly placed sediment, while others will be installed into the coir logs.

The intertidal slopes in the Phase 1 area (mid marsh bench) will be planted with rose pot liner (2 ¼" x 3") container stock and cuttings of four salt marsh plant species: common pickleweed (Salicornia pacifica), salt grass (Distichlis spicata), salty susan (Jaumea carnosa), and saltwort (Batis maritima). The container plants and cuttings will be inserted into the coconut fiber mats at no more than six-inch spacing on center. An estimated 3,600 mid-marsh containers and cuttings will be installed along the Phase 1 mid marsh bench. Additional cuttings may be placed under the fiber mats to increase potential establishment of vegetation. Lastly container plants may also be installed directly into the coir logs. All marsh planting propagules will be sourced from the Huntington Beach Wetlands.

Although the proposed project includes fill of wetlands, the area will remain intertidal habitat and there will be no decrease in wetland area. No conversion of wetland area to upland will occur. No adverse impacts to coastal salt marsh are expected from the proposed development. Rather, the project is intended to increase the quality of the wetlands by re-establishing coastal salt marsh vegetation. The condition of the marsh plantings will be monitored as described below. In addition, the success of the retention measures intended to address erosion and to create elevations suitable for the revegetation will also be monitored, as described below under Physical Monitoring.

Although the project Biological Resources Report does not anticipate impacts to coastal salt marsh, it recognizes that construction impacts to the following special status species could occur due to the proposed project: Estuary Seablite (Suaeda esteroa), Wooly Seablite (Suaeda taxifolia), Belding's Savannah Sparrow, California Least Tern, and possibly, impacts to nesting birds (**Exhibit 8**). To assure impacts to these species are avoided as expected, the following measures are proposed to be implemented. All estuary and wooly seablite individuals will be flagged by qualified wetland biologists and avoided. To avoid potential impacts to Belding's Savannah Sparrow, construction activities are proposed to occur outside of the breeding season (February 15 to July 15). To avoid impacts to California Least Tern, construction activities are proposed to occur outside their breeding season (April 1 – August 31). That is, no construction activity will occur from February 15 through August 31. In addition, a qualified wetland biologist will be present on site during all significant construction activities and a minimum of three times per week to ensure avoidance of impacts to special status species. Because no work will occur during the bird breeding season, it was determined by the Commission's staff ecologist that the presence of a qualified biologist during all significant construction activities and a minimum of three times a week, rather than during all construction activities, was adequate to assure protection of sensitive species. Consistent with the project as proposed by the applicant, **Special Condition No. 1** requires the project to be implemented as proposed (with the modifications described in the condition). **Special Condition No. 2** requires that construction occur, as proposed, outside the bird breeding season and that a qualified wetland biologist will be on site during all significant construction activities and not less than three times per week. Although the use of only those propagules sourced from the Huntington Beach Wetlands is included in the project description, it is not carried over into the proposed Biological Monitoring

Plan. **Special Condition No. 1** requires this propagule sourcing to also be described in the Biological Monitoring Plan.

Upland Dune Habitat

The proposed project will impact upland dune scrub habitat (Atriplex canescens and Artemesia californica Shrubland Alliances) due to the creation of the six-foot-wide construction access path (**Exhibit 6**). Construction of the path is necessary to access the areas effected by erosion. The access path is proposed to follow an existing degraded asphalt maintenance path that has been overtaken by vegetation. Much of the vegetation within this proposed construction access path is ruderal. However, portions of the path will go through existing dune scrub habitat. The project Biological Resources Report (Tidal Influence, June 2020 updated June 2023) identified 0.0220 acres (957.3 square feet) of impact to Fourwing Saltbrush Scrub and 0.0233 acre (1012.96 square feet) of impact to Sagebrush Scrub due to creation of the proposed construction access path. In order to offset impacts within the construction access path, the applicant is proposing to revegetate most of the access path area once both Phases 1 and 2 of the project are complete. A one-foot-wide path is proposed to remain within the area to allow access for post construction monitoring and maintenance of the Phases 1 and 2 areas. Revegetation of the access path is proposed to be accomplished by collecting seeds from the Atriplex canescens, Atremisia californica, Acmispon glaber, Isocoma mensisii, Encelia californica, and Deinandra fasciculata plants from the surrounding dune habitat prior to the start of construction. Once Phases 1 and 2 are complete, the collected seeds will be applied to the path with a hydroseeder, with the exception of the one-foot-wide path to remain. The one-foot-wide path will be flagged during re-seeding. In addition, one year of non-native weed control (non-native plant removal) will be performed within the construction access path area.

A population of Lewis' evening primrose (Camissoniopsis lewisii) is present at the project site. It was found to extend throughout the dune scrub habitat areas in the southern portion of Talbert Marsh and overlaps the construction access path. Lewis' evening primrose is an annual herb designated by the California Plant Society as CRPR 3.[6] The project includes measures to address any impacts that may occur to this species resulting from creation of the construction access path. Focused pre-construction surveys for the plant will be conducted. The focused surveys will be used to determine the percent coverage of this species within the boundary of the access path and within the adjacent dune habitat, prior to construction. The pre-construction focused survey will be conducted sometime between late winter to early spring (from February to April), depending the maturation of the fruits. Seeds of the C. lewisii will be collected in May or June prior to commencement of construction. Following completion of construction, the area will be planted with the collected seeds. Some seeds may be added to the hydroseed mix, but most of the seeds will be hand seeded within the access path area (except within the one-foot-wide path to remain). The C. lewisii

[6] CRPR 3 – rare plants which require more information to give a definitive rank.

plantings within the construction access path area are proposed to be monitored until success criteria are met. This coastal dune re-seeding will be deemed successful if the percent population post construction matches or exceeds the percent population pre-construction, at least one year after the post-construction focused survey. If the percent population has not returned to pre-construction conditions (or better) within one year, a mitigation plan to address the lack of C. lewisii and native coastal dune vegetation reestablishment shall be submitted, for the review and approval of the Executive Director, within 90 days of completion of the one-year post construction survey of the area. Additional years of monitoring will be required in the mitigation plan.

Although the C. lewisii pre-construction seed collection and the post-construction planting are described in a stand-alone memorandum (Technical Memorandum, Tidal Influence, 7/20/2020), they are not described in the Biological Monitoring Plan, the Biological Assessment, or the project description. The pre- and post-construction surveys are described in the Biological Monitoring Plan. To assure that the necessary pre-construction seed collection and post-construction seed planting occur as proposed, **Special Condition No. 1** requires that the proposed seed collection and planting be incorporated into the Biological Monitoring Plan. This will assure that any impacts to the rare C. lewisii and to the dune habitat generally will be adequately mitigated.

Because much of the area of the construction access path is primarily ruderal, non-native species, the proposed planting and monitoring of native dune species and the nonnative plant removal, is expected to ultimately be a benefit to Talbert Marsh habitat. In addition, a qualified wetland biologist will be present on site during all significant construction activities (and not less than three times per week) to ensure avoidance of special status species impacts. Consistent with the project as proposed by the applicant, **Special Condition No. 1** requires the project to be implemented as proposed (with the modifications described in the condition). **Special Condition No. 2** requires that construction occur, as proposed, outside the bird breeding season and that a qualified wetland biologist will be on site during all significant construction activities and not less than three times per week.

Project Staging and Construction Methods

The project staging area will be located within Talbert Marsh, northeast of the restoration area, adjacent to the public multi-use path that runs along the northern length of Talbert Marsh property. The staging area is identified as “developed land” on the Vegetation Alliances map (**Exhibit 6**). The construction materials and equipment will be transported from a gate at Brookhurst Street onto the multi-use trail, and then the staging area will be accessed through a swing gate off the multi-use path. From this staging area, the project sites within Talbert Marsh will be accessed via the 6 foot wide construction access path. Together the staging area and the construction access path occupy approximately 0.14 acre.

Anticipated construction equipment and materials may include:

- Small floating raft for materials transport to the South Island (if needed during higher tides)
- Small dozer (“Bobcat”)
- Cobble for backfill (approximately 55 cubic yards)
- Gravel for backfill, not to exceed 3 inches in diameter (approximately 55 cubic yards)
- Sediment for backfill (approximately 210 cubic yards)
- Filter fabric
- Natural coconut fiber rolls
- Coir logs
- Wooden stakes
- Container plants, seed and plugs (as described herein)
- Hand tools such as wheelbarrows, buckets, shovels, etc.

Materials will be transported to the site and installed by HBWC staff and volunteers, under the supervision of the project biologist. For Phase 1 (southeast shoreline), materials will be transported along the six-foot-wide construction access path. For Phase 2 (South Island), materials will then be transported across shallow water either by float during high tide events or on foot during low tide events, and either placed directly where they are needed or staged on the island. After project construction is complete the six-foot-wide access path will be reduced to a one-foot-wide footpath to allow for continued access to the site for monitoring and maintenance activities. Post-construction the access path will be revegetated with a variety of local native coastal salt marsh species as described earlier.

Improvements will be installed using hand tools. Specifications for use and installation of the proposed materials may include the following:

- Coir logs used in the intertidal zone should not exceed 6 inches in diameter. They can be stacked as need in order to create sills at the base of the slopes.
- Coir logs will be 15 feet in length and will be secured to the soil surface by 18-inch-long wooden stakes driven through the logs every five feet and penetrating the sediment as deep as 12 inches
- Coir logs will be place end-to-end along the slope with one stretch of logs along the toe, one stretch of logs near the top of the slope and at least one stretch of logs along the face of the slope (likely more will be used along the face of the erosion hole in Phase 1a).
- In some instances, pre-planted coir logs (using propagules from within the Huntington Beach Wetlands) may be utilized in order to expedite the establishment of salt marsh vegetation.
- Coir logs will be composed of 100% biodegradable plant-based materials.
- All stakes will be removed once the logs are degraded and/or vegetation has been established.

- Gravel sills will be composed of coir rock bags that are created by folding coir erosion control blankets around imported gravel and sewing them closed with jute twine. The sill would be made of several coir rock bags laid side-by-side. Each coir rock bag would be approximately six inches tall, 24 inches deep and five feet long. No rock larger than 3 inches in diameter will be used.

All significant construction activities in and around wetland areas will occur under the supervision and direction of a qualified wetland biologist, and the biologist will be present onsite a minimum of three times a week, in order to ensure maximum avoidance of impacts to wetland vegetation and special status species.

Source Material

The fill material to be used in the restoration project is will be taken from the Santa Ana River, inland of the coastal zone boundary. Thus, the removal of the materials from the river is not subject to this review. The mouth of the Santa Ana River is located adjacent to Talbert Marsh and was historically connected with it. Over time, with development of the area and the channelization of the Santa Ana River, this connection has all but disappeared. However, it is likely that materials from the Santa Ana River would have naturally been deposited within Talbert Marsh prior to extensive area development starting near the beginning of the last century. Thus, it is somewhat natural for Santa Ana River materials to be deposited in the marsh now as part of the restoration project. However, due to development surrounding the river, the quality of the sediment removed from the river may not be as compatible with the marsh with regard to sediment chemistry (cleanliness) as it was historically.

To address this, the Santa Ana River (SAR) sediment was tested according to the National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Table (SQUIRT). SQUIRT provides guidelines which are used to screen sediments for contaminant concentrations that might cause biological effects and to identify sediments for further toxicity testing. As part of the SQUIRT screening for the proposed project, the SAR sediments were screened for nine trace metals, thirteen individual Polycyclic aromatic hydrocarbons (PAHs), three classes of PAHs, and three classes of chlorinated organic hydrocarbons. Multiple samples were taken at the site and combined into composite samples for laboratory analysis to determine whether the sediment is suitable for use in the wetlands. Material was also tested for fertility to determine if it is sufficient for colonization of marsh plants. Only sediments that are determined suitable will be placed within the marsh restoration area. The SAR sediment removal was performed by the County of Orange, who also performed the SQUIRT testing. The results of the SQUIRT testing were included with the CDP application submittal. Those testing results were reviewed by the Commission's staff engineer. The Commission's staff engineer concurs that the results of the sediment testing indicate that the SAR source materials are acceptable for placement within Talbert Marsh. **Special Condition No. 4** requires that, as proposed, all source materials meet the standards of the NOAA SQUIRT Guidelines (Buchman 2008) regarding chemical content and suitability for use within the coastal salt marsh environment of Talbert Marsh.

If the SAR material proposed to be used in the areas of gravel fill are too large, it is possible that it could have the opposite of the intended effect and actually exacerbate erosion of the shoreline at the South Island (Phase 2) through what is often referred to as “piping” of fine sediment behind the rock from waves lapping on the rock. Coastal Commission technical staff recommend that other than in the Phase 1a “erosion hole” location, the sediment/gravel/rock used in Phases 1b, 2a and 2b not exceed a maximum diameter of three inches. The three-inch diameter cutoff is justified by the wave conditions and feasibility of storing the rock. This sizing is consistent with the applicant’s current proposal. In order to assure that the sediment/gravel/rock to be used in the proposed project Phases 1b, 2a, and 2b does not exceed the maximum three-inch diameter, the materials may need to be screened through an appropriately sized sieve. **Special Condition No. 4** requires that as proposed, other than in the Phase 1a “erosion hole” location, the maximum sediment/gravel/rock size allowed is a maximum three-inch diameter. In addition, **Special Condition No. 4** requires that all cobble used within Phase 1a be covered with graded fill material deemed acceptable for use, consistent with NOAA SQUIRT Guidelines (Buchman 2008).

Use

Section 30233 of the Coastal Act limits fill of wetlands to one of the six uses identified therein. Restoration is one of the specifically enumerated uses for which fill of wetlands is allowed by Section 30233(a)(6). In addition, Section 30233(c) requires that fill in existing wetlands shall maintain or enhance the functional capacity of the wetland. The proposed project is a restoration project. The proposed restoration is intended to enhance the functional capacity of the wetland by restoring vegetated coastal salt marsh habitat and bird refugia that was removed by erosion. Section 30240 allows only those uses within ESHA that are dependent upon the ESHA resource. Coastal salt marsh can occur only in wetlands. Thus, the proposed restoration of the coastal salt marsh is dependent upon the wetland resource and thus is an allowable use in ESHA under Section 30240. Moreover, Section 30240 requires that ESHAs be protected against any significant disruption of habitat values. The goal of any restoration, including the proposed project, is to enhance habitat values. The proposed coastal salt marsh restoration is intended to arrest the current erosion problem that is eliminating higher value vegetated coastal salt marsh habitat and bird refugia.

As described earlier, Talbert Marsh has been subject to two earlier restorations. Over time, issues within the managed ecosystem arise which then must be addressed. The current issue the subject project is proposed to address is erosion that continues to reduce the area of coastal salt marsh and associated salt marsh vegetation, as well as reduced bird refugia area. If the proposed pilot project is successful in increasing the area of native coastal salt marsh vegetation, the shoreline that has been lost to erosion along with the vegetation it supported, will be reclaimed and restored to vegetated coastal salt marsh and once again be functioning salt marsh habitat. Similarly, the project, if successful, will restore area used by sensitive bird species for refuge. These bird species include California least terns, Belding’s savannah sparrow, western snowy

plovers, and others. The proposed project is intended to protect against future erosional disruption of the coastal salt marsh habitat and sensitive bird refugia. Thus, the proposed project is rightly described as a restoration project, and therefore an allowable use under both Sections 30233 and 30240 of the Coastal Act.

Mitigation

Section 30233 of the Coastal Act requires that any allowable fill of wetlands must provide adequate mitigation to minimize any adverse environmental effects the project may have. The project can only be found consistent with Sections 30233 and 30240 if it is a restoration project. Therefore, it is important that the habitat improvements expected from the proposed project occur (and if they are not successful, that adaptive measures be implemented). Project monitoring is needed to assure that the proposed restoration is successful. Project monitoring would provide the information necessary to determine whether that the expected habitat benefits have occurred, as well as whether the adverse erosional effects have been addressed by the proposed project. Biological monitoring is needed to assess whether the habitat gains occur as proposed. In addition, biological monitoring is needed to assure that impacts to the dune scrub habitat are mitigated. Monitoring will also help determine whether success criteria are achieved, and if not, that adaptive measures will be implemented. Physical monitoring is needed to assess whether the measures proposed to address the erosion problems are effective. And, if not, that adaptive measures are implemented. The proposed project includes both a Biological Monitoring Plan and a Physical Monitoring Plan. As a pilot restoration project, part of the goal is to assess whether the proposed approach is successful, and if not to gain understanding as to why not and what may work instead.

The proposed habitat restoration project is not anticipated to have adverse environmental impacts, with the exception of the impacts resulting from creation of the construction access path, a portion of which will traverse dune scrub habitat. The impacts to dune habitat require mitigation, which is proposed in the form of revegetation and monitoring.

1. Biological Monitoring

As proposed in the project description, Biological Monitoring Plan, Biological Resources Report, the project includes monitoring of the coastal salt marsh revegetation and of the construction access path area. Biological monitoring would provide assurance that long term impacts to the habitat do not occur. The applicant has provided a Biological Monitoring Plan (Tidal Influence, LLC, June 2023). Most of the monitoring measures proposed are included in this plan. However, some aspects are described in the project description, some in the Biological Resources Report, and some in a separate Lewis' evening primrose mitigation plan. **Special Condition No. 1** includes modifications to the Biological Monitoring Report to incorporate all of the proposed biological monitoring measures in one document.

a) Coastal Salt Marsh

Coastal salt marsh vegetation is proposed to be planted in the Phase 1 area. All propagules used for this planting will be sourced from within the Huntington Beach Wetlands. The Phase 1 area will be divided into low marsh and mid-marsh plantings (**Exhibit 5**). The low marsh planting will be composed entirely of Pacific cordgrass plugs sourced from several existing mature cordgrass meadows found in Talbert and Brookhurst Marshes. No more that 10% of any mature cordgrass meadow will be sourced and no sourcing will occur along the four feet exterior edge of any sourced meadow. Approximately 500 plugs of cordgrass measuring 2-4 inches in diameter will be required to stabilize the low marsh elevations and allow for full colonization within two years. Some cordgrass plugs will be installed directly into the freshly placed sediment, while others will be installed into the coir logs.

The intertidal slopes in the Phase 1 area (mid marsh bench) will be planted with rose pot liner (2 ¼" x 3") container stock and cuttings of four salt marsh plant species: common pickleweed (Salicornia pacifica), salt grass (Distichlis spicata), salty susan (Jaumea carnosa), and saltwort (Batis maritima). The container plants and cuttings will be inserted into the coconut fiber mats at no more than six-inch spacing on center. An estimated 3,600 mid-marsh containers and cuttings will be installed along the Phase 1 mid marsh bench. Additional cuttings may be placed under the fiber mats to increase potential establishment of vegetation. Lastly container plants may also be installed directly into the coir logs.

The coastal salt marsh revegetation is proposed to be monitored commencing within one month of completion of construction Phases 1 and 2. Monitoring will include georeferenced photo points, to document and track landscape changes and establishment of the vegetation community over time. Monitoring of vegetation cover is also proposed, including evaluating the health and function of the wetland system, changes in relative presences of native and non-native plant species, and cover and complexity of the vegetation. A minimum of 20 permanent quarter-meter quadrats will be installed for use during monitoring. Three 150 feet transects will be placed parallel to the shoreline to capture the low, mid, and high marsh zones. Three additional transects will be placed perpendicular to the shoreline to capture the plant zonation transitions (minimum of three quadrats per transect). These perpendicular transects will be 50 feet long and will be deployed to include the full profile of the vegetated low to high marsh community.

The percent cover of each plant species present within the quadrats will be estimated along with the percent cover of unvegetated areas. Native and non-native cover will be estimated for each quadrat. Line-intercept data will be used to assess percent cover by plant species and nativity. Performance criteria are described in the Biological Monitoring Plan, which also requires that if performance criteria are not met within five years from completion of construction, the monitoring will continue. Performance criteria include minimum percent cover of native vs. non-native plants, all three marsh habitat zones must be represented, native species richness must equal or exceed pre-construction richness, and cordgrass must be present, among other criteria.

Performance criteria are provided for year 1, year 3 and year 5, each with increasing levels of required performance. If performance criteria are not met, a new mitigation plan is required, which may be subject to an amendment to the CDP or a new CDP.

b) Coastal Dune Scrub Habitat

To address impacts from construction of the construction access path, the applicant has proposed revegetation with native coastal dune plants and removal of non-native plants. To confirm whether native coastal dune vegetation returns to pre-construction populations in the area, the proposed Biological Monitoring Plan requires detailed vegetation surveys of the construction footprint, including vegetation alliance mapping to determine percent cover of native and non-native vegetation, as well as a focused survey for individuals of Camissoniopsis lewissi (Lewis' evening primrose). These plant count and population surveys will be conducted within six weeks prior to commencement of construction, within one month after completion of the Phase 1 and Phase 2 work, and at one year from the date of the post-construction survey. The C. lewisii surveys will be conducted within the appropriate survey period for C. lewisii. All surveys will be documented in the Annual Report. Native dune seeds will be collected from the adjacent dune habitat prior to commencement of construction and will be used in hydro-seeding the area at the completion of construction. Seeds of C. lewisii will be collected prior to construction, and will be planted at the completion of construction. Some of the C. lewisii may be included in the post construction hydroseeding, most will be hand seeded. Non-native plant removal is proposed for the first year following completion of construction.

If the one-year post construction survey reveals that the habitat within the six foot wide construction path area has recovered to pre-construction conditions, or is improved beyond pre-construction conditions, no further monitoring is required. However, if the area has not recovered to pre-construction conditions (i.e., performance criteria are not met), the proposed Biological Monitoring Plan requires that adaptive management be implemented, including removal of non-native vegetation species and supplemental seeding or planting of native vegetation. Monitoring of C. lewisii will occur for five years, or until the population within the construction access path meets or exceeds the pre-survey coverage.

Because much of the access path is currently comprised of ruderal, non-native plants in addition to the areas of coastal dune scrub habitat (**Exhibit 6**), with the proposed revegetation of the entire area with native coastal dune species sourced from the adjacent dune habitat, and with one year of on-going non-native vegetation removal from the area, the area of the construction access path is expected to ultimately result in improved coastal dune scrub habitat quality as a result of the proposed project.

c) Biological Monitoring Conclusion

The proposed Biological Monitoring Plan, Biological Resources Report, the project description, and a separate Lewis' evening primrose mitigation plan together identify monitoring methods to assure that revegetation of the coastal salt marsh and

construction access path revegetation is successful. The proposed Biological Monitoring Plan identifies qualitative field monitoring methods to be implemented, requires vegetation surveys to determine percent cover of native and non-native plant species within the revegetation areas of the project, requires preparation of an annual Monitoring Report, requires use of regular periodic photos from specific photo points to visually track the progress of vegetative coverage, and describes final performance criteria. However, a few modifications to the Plan as proposed are needed, including incorporating all monitoring measures into a single document.

The Biological Monitoring Plan requires surveys to identify and track non-native and invasive plants, but only requires that they be flagged and recorded, not removed from the restoration area. The Biological Resources Report states that the project includes one year of non-native weed control. The Biological Monitoring Plan says that the project ecologist will visit the site monthly for the first year and quarterly thereafter. The non-native vegetation removal should occur during these first year monthly visits. **Special Condition No. 1** requires that the Biological Monitoring Plan also require that the non-native and invasive species be removed from the restoration area during the first year monthly visits, and that if performance criteria are not met within the first year, quarterly thereafter.

The project description proposes that any propagules (seeds, cuttings, container plants) used in the restoration project shall be derived from the Huntington Beach Wetland Complex. However, this is not included in the proposed Biological Monitoring Plan. **Special Condition No. 1** requires that this aspect of the project be included in the Biological Monitoring Plan, consistent with the project description.

A Technical Memorandum titled “Talbert Marsh Living Shoreline Project Special Status Species Impact Analysis for Camissoniopsis lewisii,” prepared by Tidal Influence, dated July 20, 2020, provides the detail of the C. lewisii mitigation and monitoring described above. However, this is not included in the proposed Biological Monitoring Plan. **Special Condition No. 1** requires that this aspect of the project be included in the Biological Monitoring Plan, consistent with the project description.

Special Condition No. 1 requires a modification to the proposed Biological Monitoring Plan to recognize that if hay is used, that only sterile hay be used throughout the entire project process. Currently the Biological Monitoring Plan only mentions the potential use of sterile hay in the adaptive management procedures.

The proposed Biological Monitoring Plan acknowledges that Best Management Practices will be implemented to avoid recruitment or spread of non-native invasive species (Section 3.0). However, the proposed BMPs are not described in the proposed Biological Monitoring Plan. **Special Condition No. 1** requires that a description of potential BMPs be included in the Biological Monitoring Plan.

Special Condition No. 1 requires a correction to *Section 3.8 Changes to the Monitoring Plan* in the Biological Monitoring Plan to delete the former, expired CDP number (5-20-0348) and replace it with the current CDP number (5-23-0409).

The proposed Biological Monitoring Plan, Biological Resources Report, proposed project description, and a separate Lewis' evening primrose mitigation plan, together identify methods to be employed during project biological monitoring of the restoration sites with the detail necessary (with the modifications described in **Special Condition No. 1**) to implement the level of biological monitoring required to assess the success of the proposed restoration project or to determine measures to be implemented should success not be achieved. Implementation of the proposed Biological Monitoring Plan, as modified by **Special Condition No. 1**, will result in the information necessary to determine whether the restoration plan has been successful; and if not, requires that adaptive measures be identified and implemented.

2. Physical Monitoring

In addition, physical monitoring is needed to assess the effectiveness of the pilot project in addressing the erosion issue as necessary to restore habitat. As stated earlier, the project can only be found to be consistent with Sections 30233 and 30240 if it is a restoration project. Therefore, it is important that the habitat improvements expected from the proposed project do indeed come to fruition, or, as a pilot project, if they do not, adaptive measures are implemented. In order to restore the coastal salt marsh habitat, the current erosion conditions must be addressed. The physical monitoring is necessary to establish whether the erosion issue that has been causing the adverse habitat impacts has indeed been addressed.

The applicant has provided a Physical Monitoring Plan (Moffatt & Nichol, July 2023). This proposed Physical Monitoring Plan identifies methods to be employed during physical monitoring of the project Phases 1 and 2 restoration sites. Physical monitoring will occur across both Phase 1 and Phase 2 project areas. Pre-project site conditions will be surveyed for base line data. Monitoring will begin upon completion of the project and occur monthly for year one and quarterly thereafter for years 2 - 5. Monitoring will occur for five years or until success criteria are met. It provides the level of detail necessary to implement the physical monitoring as necessary to assess the success of the proposed restoration project or to develop adaptive measures that could be implemented should success not be achieved. This level of detail is necessary to determine whether the monitoring will be adequate to determine whether the erosion causing the habitat impacts has been arrested or not. The proposed Physical Monitoring Plan identifies monitoring goals, a monitoring schedule of monthly the first year and quarterly thereafter, monitoring methods, success criteria, adaptive management, and reporting requirements.

Specific quantitative measures are described in the Physical Monitoring Plan, including photos to be taken from regular points on a regular timeframe. Methods for measuring change along the monitoring stakes are also described. During construction, monitoring

stations will be established with monitoring stakes and their location recorded using GPS points. The monitoring stations will be spaced 25 feet apart and at the ends for each monitoring site. They will be used to provide quantitative data for the project. A total of 19 transects will be created for the project. Transect data will be measured perpendicular to the shoreline and measurements in the field from these positions will be recorded immediately after construction, then monthly for the first year after completion of construction, and quarterly thereafter. The GPS positions of the monitoring stations will be recorded using a handheld RTK instrument or equivalent technology. After construction is completed, the horizontal distance, shoreline profile, and slope will be measured from the toe of slope to each monitoring location. The RTK instrument will be used to record spot elevations every 3 feet along the shore-perpendicular transects until the toe of slope is reached. These data will represent the as-built (year zero) baseline transect condition.

Regular measurements of the following are included in the proposed Physical Monitoring Plan: vertical settlement of the gravel, changes in slope, dislodging or transport of rock outside the project areas, and formation of scarps. Physical monitoring will include observation of the condition of the cobble slopes and the coir logs and soil. Example(s) of potential adaptive management activities are identified. Proposed adaptation strategies include details regarding the possible addition of more sediment and/or vegetation. The Physical Monitoring Plan describes project success criteria, which is based on the level of net sediment deposition occurring at each monitoring location and along the shoreline as a whole. Success will be achieved if sediment depth increases or remains unchanged over time where intended (behind coir logs at the slope toe and along slope terraces). **Special Condition No. 3** requires the applicant to carry out the final Physical Monitoring Plan as proposed. This is needed to understand the success of the proposed project in abating erosion and establishing stable areas capable of supporting the restored habitat.

Least Environmentally Damaging Alternative

Section 30233 requires that any allowable fill of wetland be the least environmentally damaging alternative. The project is a habitat restoration project that, as proposed and conditioned, will improve the habitat quality in Talbert Marsh and address the erosion problem that has been adversely impacting habitat. A “no project” alternative was considered. Under that alternative, erosion would continue, causing displacement of bank material, leading to further shoaling. These activities would cause loss of eelgrass, and increased negative impacts to fish habitat. An earlier alternative considered use of cobble in additional project areas. But it was determined that this would have been ineffective at addressing the erosion problem by causing “piping” (loss of sediment from behind the cobbles), and so was not a preferred alternative as it would have been more environmentally damaging. As conditioned and proposed, the project includes measures intended to increase the likelihood of success of the project, and monitoring that will document whether the specific performance criteria are achieved, and provides avenues to follow should performance criteria not be met. Thus, the proposed

restoration project meets the requirement of Coastal Act Section 30233 that any allowable fill of wetlands be the least environmentally damaging feasible alternative.

ESHA/Wetland Conclusion

Section 30240 requires that ESHA be protected and allows only uses within ESHA that are dependent upon those resources. The proposed project is intended to restore coastal salt marsh ESHA, and so will protect the ESHA. As a coastal salt marsh restoration project, the proposed development is dependent upon the ESHA resource. In addition, impacts to sensitive dune habitat due to construction of the necessary, temporary construction access road will be offset by the proposed and conditioned removal of non-natives from the area and re-vegetation of the area with seeds and plantings taken from the Huntington Beach Wetlands Complex, as well as monitoring to assure the area is restored to or beyond pre-construction conditions. For these reasons, the proposed project, as conditioned, is consistent with Section 30240 of the Coastal Act.

Section 30233 requires that fill of wetlands only be allowed when the project is: 1) an allowable use, 2) the least environmentally damaging alternative, and 3) when adequate mitigation is provided. In addition, Section 30233(c) requires that any fill of existing wetlands (such as Talbert Marsh) must maintain or enhance the functional capacity of the wetland. As a restoration project, the project constitutes an allowable use under Section 30233. As conditioned for a revised Biological Monitoring Plan, avoidance of the bird breeding seasons, to implement the Physical Monitoring Plan as proposed, and for use of only sediment source material that meets NOAA SQUIRT testing standards to assure suitability for use within the marsh, the proposed project will provide adequate mitigation for any potential impacts that may be associated with the proposed project. In addition, the proposed restoration project limits the size of rock allowed and, as proposed and conditioned, will implement detailed monitoring to verify restoration success. Thus, the project is the least environmentally damaging alternative. Therefore, the Commission finds the proposed development, as conditioned, is consistent with Coastal Act Sections 30233 and 30240, which require protection of wetland and ESHA.

F. Public Access

Section 30210 of the Coastal Act states:

> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Talbert Marsh is located adjacent to the Talbert Marsh Multi-Use Public Access Path and to the Santa Ana River Trail bicycle and pedestrian path. It is located immediately across Pacific Coast Highway from Huntington State Beach (**Exhibit 1b**). No public

access is currently available within the marsh, as is appropriate given the sensitivity of the site. However, the Talbert Marsh Multi-Use Public Access Path runs immediately adjacent to the inland side of the marsh. Public views of the Marsh are available from the Talbert Marsh Multi-Use Public Access Path (**Exhibit 10**). The Talbert Marsh Multi-Use Public Access Trail connects to Brookhurst Street and to the Santa Ana River Trail. The proposed project will have no long term impacts on public access. No public access impacts to the state beach will result from the project.

Limited temporary construction access will occur from Brookhurst, along the Talbert Multi-Use Trail to the construction staging area. This construction access is not expected to occur often, only occasionally, primarily during initial construction and at construction conclusion, with only occasional additional needs to access the site. The applicant has submitted a public access plan that requires the use of flaggers on site to assure the safety of any pedestrian or bicycle traffic for the short durations when materials are being transported to the staging site. The flaggers will stop and/or re-direct pedestrians and bicyclists on the path during the very short period during which equipment and materials are in transit. No closure of the trail is proposed or required. No storage or staging will occur on the multi-use trail. Use of flaggers will assure the safety of public users of the trail during any materials and equipment transport along the trail during construction.

The proposed Public Access Plan recognizes that the preferred alternative is to keep the trail open and forbids closure of the trail to public use. Use of flaggers to direct the public safely along the trail is proposed and is the preferred alternate to trail closure. **Special Condition No. 7** requires the applicant to implement the Public Access Plan as proposed. As conditioned, the proposed project is consistent with Section 30210 of the Coastal Act.

G. Local Coastal Program (LCP)

An LCP for the City of Huntington Beach was effectively certified in March 1985, and although the subject area was originally excluded from that LCP as an area of deferred certification, the LCP was expanded to cover this area in 1995. However, the proposed development is located within an area that includes both City of Huntington Beach CDP jurisdiction and Coastal Commission retained permit jurisdiction (due to areas of tidal influence).

In such circumstances, Section 30601.3 of the Coastal Act provides for the issuance of coastal development permits directly by the Commission when the applicant, the local government and the Commission, through its executive director, consent to consolidate the permit action, provided that public participation is not substantially impaired by that review consolidation. In this case, the applicant (HBWC) and the local government (City of Huntington Beach), have requested that a single consolidated permit be processed by the Coastal Commission. Thus, the coastal development permit application was submitted directly to the Commission. The standard of review for the consolidated

coastal development permit is Chapter 3 of the Coastal Act. The City's LCP may be used as guidance. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act.

H. California Environmental Quality Act (CEQA)

Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effect which the activity may have on the environment.

The City of Huntington Beach is the lead agency responsible for certifying that the proposed project is in conformance with CEQA. The City determined that in accordance with CEQA, the project is Categorically Exempt from Provisions of CEQA, citing CEQA Guidelines section 15333 (Small Habitat Restoration Projects). However, even if the project were not exempt, the Commission's approval of the CDP would be consistent with any applicable requirements of CEQA.

The proposed project has been conditioned to be found consistent with the wetland and habitat protection, water quality, and public access policies of the Coastal Act. Mitigation measures, in the form of special conditions, require: 1) a revised Biological Monitoring Plan; 2) avoidance of construction during bird breeding season; 3) conformance with the Physical Monitoring Plan; 4) restrictions on the source materials for the proposed fill for restoration purposes, including testing requirements and limits on rock size; 5) consistency with Resource Agency approvals, 6) implementation of construction water quality best management responsibilities, and 7) conformance with the Public Access Plan.

As conditioned, there are no feasible alternatives or additional feasible mitigation measures available that would substantially lessen any significant adverse effect which the activity may have on the environment, nor will the project have any significant effect on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and complies with any applicable requirements of CEQA.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

1. Coastal Development Permit Application File 5-23-0409 (HBWC).

2. Talbert Marsh Living Shoreline Project Physical Monitoring Plan (Moffatt & Nichol, July 2023).

3. Certificate of Analysis, Preliminary Report (Weck Laboratories, Inc., 5/11/2022)

4. Talbert Marsh Living Shoreline Project Biological Resources Report (Tidal Influence, June 2020 (Revised July 2023)).

5. Talbert Marsh Living Shoreline Project Biological Monitoring Plan (Tidal Influence, LLC, June 2023)