

COASTAL CONSERVANCY

Staff Recommendation  
June 1, 2023

**TIJUANA ESTUARY TIDAL RESTORATION PROGRAM II –  
PHASE 1 FINAL DESIGN AND PERMITTING**

Project No. 00-099-03  
Project Manager: Sam Jenniches

**RECOMMENDED ACTION:** Authorization to disburse up to \$3,192,500 to the Southwest Wetlands Interpretive Association to develop final design plans, to conduct pre-restoration monitoring, and to apply for permits for the first phase of the Tijuana Estuary Tidal Restoration Program II in San Diego County and adoption of findings under the California Environmental Quality Act.

**LOCATION:** Tijuana River Estuary, Cities of Imperial Beach and San Diego, San Diego County

---

EXHIBITS

- Exhibit 1: [Project Location Map](#)
  - Exhibit 2: [Draft Conceptual Restoration Plan](#)
  - Exhibit 3: [Tijuana Estuary Tidal Restoration Program II Phase 1 Final Environmental Impact Report / Environmental Impact Statement \(March 24, 2023\)](#)
  - Exhibit 4: [Tijuana Estuary Tidal Restoration Program II Phase I Statement of Overriding Considerations](#)
  - Exhibit 5: [Project Letters](#)
- 

**RESOLUTION AND FINDINGS**

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed three million one hundred and ninety-two thousand dollars (\$3,192,500) to the Southwest Wetlands Interpretive Association to develop final design plans, to conduct pre-restoration monitoring, and to apply for permits for the first phase of the Tijuana Estuary Tidal Restoration Program II in San Diego County.

---

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 6 of Division 21 of the Public Resources Code, regarding enhancement of coastal resources.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
3. The Southwest Wetlands Interpretive Association is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.
4. The Conservancy has independently evaluated the Tijuana Estuary Tidal Restoration Program II Phase 1 Final Environmental Impact Report (EIR) / Environmental Impact Statement certified by California State Parks on March 24, 2023. The Conservancy finds that:
  - a. The Project will have “potentially significant” effects in the areas of Cultural Resources, Hazardous Materials and Public Safety, and Tribal Cultural Resources. With regards to these impacts, the Conservancy finds that the Project, as modified by the incorporation of the mitigation measures identified in the Final EIR, avoids, reduces, or mitigates all possible significant environmental effects of the project to less-than-significant levels except for the potentially significant impacts identified in finding 4b below.
  - b. The Project may result in “significant and unavoidable” impacts to Hydrology and Water Quality (temporary), Biological Resources (temporary), Air Quality (temporary, cumulatively temporary), and Noise (cumulatively temporary), but environmental and other benefits of the Project as described in the accompanying staff recommendation outweigh or render acceptable these unavoidable adverse environmental impacts to achieve the objectives of the Project.
  - c. The Conservancy adopts the Findings regarding Significant Effects and Statement of Overriding Considerations set forth in the accompanying staff recommendation.

---

## **STAFF RECOMMENDATION**

### **PROJECT SUMMARY:**

Staff recommends the Conservancy authorize a grant of \$3,192,500 to the Southwest Wetlands Interpretive Association (SWIA) to develop final design plans, to conduct pre-restoration monitoring, and to acquire permits for the first phase of the Tijuana Estuary Tidal Restoration

Program II in the Tijuana River National Estuarine Research Reserve (TRNERR) in San Diego County (see Exhibit 1, Project Location Map.) The term “project” in this staff recommendation refers to Phase I of the Tijuana Estuary Tidal Restoration Program (TETRP) II.

The Tijuana Estuary is one of the last relatively intact estuarine ecosystems in southern California. However, the estuary has been subjected to continued degradation over time. Activities affecting the estuary include river channel modification, damming, cross-border sewage flows from Mexico, unseasonal freshwater flows, and excessive sediment deposition. It has been estimated that as much as 60-80% of wetland habitats and tidal prism at Tijuana Estuary have been lost since the mid-1800s in part due to this excessive sedimentation. Cross-border flows of pollutants from the Mexico contribute to the frequent closure of South San Diego County beaches, compromising access to the area’s beautiful beaches and waterfronts, and impacting tourism and access of residents to local open space and recreation. Additionally, those conditions impact Naval operations and training at Naval Base Coronado and impact staff and officers of the Department of Homeland Security’s San Diego Section in their border operations.

Despite these serious anthropogenic stressors, Tijuana Estuary remains one of the most functional wetland systems in southern California. The majority of the estuary is natural open space where the river mouth remains unconstrained from hardscape or infrastructure, unlike many coastal wetlands located in the region. The Tijuana Estuary Visitor Center is located at the northern end of TRNERR. The California Department of Parks and Recreation (DPR) manages Border Field State Park, while the U.S. Fish and Wildlife Service (USFWS) manages the Tijuana Slough National Wildlife Refuge (Refuge) that make up TRNERR. A series of trail networks extend throughout the Refuge and Border Field State Park for pedestrian, bike, and equestrian users. Restrooms, picnic areas, and interpretive displays are provided in the southernmost portion of Border Field State Park. Visitors can enjoy bird watching, hiking, and horseback riding at the southwest corner of the continental United States. The County of San Diego has constructed a campground in the river valley to provide additional recreational opportunities.

The Tijuana Estuary Tidal Restoration Program (TETRP) is a large restoration project led by TRNERR designed to reverse degradation and preserve the remaining resources at the Tijuana Estuary. The TETRP has multiple phases. To date, two projects identified in TETRP have been completed (the Model Marsh and Tidal Linkage). These are considered TETRP I. The next phase, TETRP II, is an expected multi-phase restoration of 250-300 acres of current and former tidal wetlands. The project is an approximately 85-acre restoration project that will be designed to increase the tidal prism of the estuary and restore hydrological functions and habitats that have been lost. The loss of tidal prism has resulted from excessive sediment deposition over the last 40+ years due to cross-border flows of sediments. The project site is likely buried by at least 1-2 feet of sediment with some areas experiencing significantly more sedimentation. The loss of tidal exchange has led to decreased habitat and habitat quality as well as reduced estuary function. Restoring the tidal prism will help maintain natural river mouth conditions and will restore tidally-influenced habitat for the benefit of fish and wildlife, including listed and sensitive species. To date, a Feasibility and Design Study for TETRP II has been completed (2008), and the environmental review (EIR/EIS) of the project was completed in March of 2023.

The recommended grant is to complete the remaining planning and permitting tasks necessary to ready the project for construction. These tasks are set forth below. SWIA will develop final design and engineering plans, estimates of construction costs, preparation of bid documents, and applications for the required permits needed to construct the project. It will also complete remaining technical studies, including sediment analyses in support of reuse opportunities and planting, surveys of listed species required for permitting, updated habitat mapping, beach monitoring, and pre-restoration monitoring of biota, water quality, and physical processes.

SWIA will develop a plan for meaningful community engagement with robust outreach and communication. SWIA will establish a community engagement working group that includes representation from those who reside near the project site, those who visit TRNERR, and those who may be impacted by the project. This working group will develop a plan for engagement opportunities during the final design, implementation, and monitoring of the project. SWIA might utilize a community engagement consultant to assist in the development of outreach plans and products. The project will also include funding for a Science Advisory Team that will provide scientific direction and review of the design and engineering.

The project will include outreach to Tribes with the goal of developing stronger partnerships with tribes and leveraging opportunities to incorporate traditional ecological knowledge and stewardship. SWIA will seek to provide opportunities for governments and members of Tribal Nations who include Tijuana Estuary in their ancestral homelands to participate in the project. This process may include creation of a Tribal advisory committee or inclusion of Tribal representation in existing committees. The type of participation will be determined by the Tribes but could include providing recommendations on design elements, communications, cultural monitoring, and planting palettes. Tribal participants will be compensated for their time.

Letters were distributed per the Conservancy's Tribal notification process on April 18, 2023.

**Site Description:**

The Tijuana Estuary is located in the southwestern corner of California. It is the terminus of the Tijuana River and exists within the trinational border area of the United States, Mexico and the Kumeyaay people. It is the site of the Tijuana River National Estuarine Research Reserve (Reserve), a partnership of the National Ocean and Atmospheric Administration (NOAA) and the State of California, established under the auspices of the federal Coastal Zone Management Act. The Reserve is operated by staff from DPR, USFWS, and SWIA. In addition, several regional agencies and local municipalities share ownership and management responsibilities at the Reserve, and many sit on the Reserve's Advisory Council. The project is located on land under the jurisdiction of DPR and the USFWS.

The Reserve encompasses beach, dune, mudflat, salt marsh, riparian, coastal sage scrub, and upland habitats surrounded by the growing cities of Tijuana, Imperial Beach, and San Diego. Critical issues confronted by the Reserve include habitat conservation and restoration, endangered species management, management of the wastewater from Mexico, solid waste, sediment management, and the integration of recreation.

**Grant Applicant Qualifications:**

SWIA works in collaborative partnerships with federal, state, county, and local agencies, and holds a cooperative agreement with DPR. Since 1979, SWIA has successfully managed more than \$45 million in wetland projects and programs, in and around the Tijuana River Valley and South San Diego Bay. SWIA and its contractors have completed the following related projects at the Tijuana River Estuary:

- Construction of the TETRP 20-acre **Model Marsh** - \$ 3.08M (2000)
- Completion of the feasibility and design study for the remaining 250 acres of the **TETRP II** – \$ 1.2M (2008)
- Completion of **Tijuana Estuary Sediment Fate & Transport Study** – \$ 1.62M (2010)
- Completion of 30% design and engineering and EIR/EIS for **TETRP II Phase I** – \$ 1.24M (2023)

#### **CONSISTENCY WITH CONSERVANCY’S PROJECT SELECTION CRITERIA:**

The proposed project is consistent with the Conservancy’s Project Selection Criteria, last updated on September 23, 2021, in the following respects:

##### **Selection Criteria**

#### **1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.**

See the “Consistency with Conservancy’s Strategic Plan” section below.

#### **2. Project is a good investment of state resources.**

When implemented, the project will increase tidal prism, which is critical to maintenance of river mouth conditions, and the restoration of approximately 85 acres of tidally influenced habitat for the benefit of fish and wildlife. The project will restore:

- Tidal salt marsh, including cordgrass, pickleweed, and associated native plants. The endangered light-footed Ridgway’s rail and Belding’s Savannah sparrow are dependent on this habitat for survival.
- Intertidal flat, which supports a wide variety of birds migrating along the Pacific Flyway.
- Tidal channels, which support a variety of fish and invertebrates, including leopard sharks, juvenile California halibut, and littleneck clams.

When implemented, the project will facilitate dune-building by placement of material on the shore, supporting the endangered California least tern and threatened western snowy plover, and will promote resilience of the intertidal system to sea level rise and large storm events.

#### **3. Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.**

On September 7, 2021, DPR, as the landowner of the project area, sent an outreach letter to the list of 20 Native American Tribal representatives identified by the Native American Heritage Commission (comprising 13 Tribes) and followed up with both emails and phone calls. Of the 13 Tribes on the consultation list, DPR received five responses and, of these, Jamul Indian Village (Jamul) and the San Pasqual Band of Diegueño Mission Indians (San Pasqual) requested formal consultation with DPR during the preparation of the Draft EIR. In addition, the Viejas Band of Kumeyaay Indians also requested to be informed of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains. A consultation meeting was held with Jamul on September 29, 2021, with representatives SWIA, USFWS, and DPR present. A consultation meeting with San Pasqual was held on November 19, 2021 with the same agencies present. A summary of TETRP II Phase I and the environmental setting was summarized and discussed at both consultations, and both natural and cultural concerns were discussed and noted.

Through their tribal outreach efforts, SWIA and project partners identified the need to engage more with tribes on this project and thus included the proposed tribal engagement as part of this project.

#### **4. Project benefits will be sustainable or resilient over the project lifespan.**

The TETRP II Phase I restoration design included an in-depth consideration of resilience, especially as related to potential climate change impacts for the estuary and its restoration. Pertinent work included consideration of long-term change in the Tijuana River Valley as informed by the Tijuana River Valley Historical Ecology Investigation (2017), interpretation of both sea level rise and marsh response modeling results, expert elicitation, and scenario planning.

Grading of the project site in locations where sedimentation has buried marsh habitats to create slopes with a gradual habitat gradient will create opportunities both for near-term wetland function as well as future wetland function since enhancement will allow for upslope migration of salt marsh in response to sea level rise. With the anticipated preferred design, the proposed project aims to create a more resilient ecosystem that can better accommodate future climate change scenarios, including sea level rise. In addition, specific soil management options provide soft, natural solutions through beach nourishment consistent with Sea-Level Rise Policy Guidance by including soft solutions as a component to shoreline protection.

The sea-level rise planning for this project, and management needs of the Tijuana Estuary more generally, is provided by the Climate Understanding and Resilience in the River Valley project (2017), which suggests that elevated sea levels coupled with changing wave climates can increase the frequency and/or duration of mouth closure events at the estuary, thus decreasing the resilience of the system and dramatically compromising ecosystem integrity and health. TETRP directly addresses this by increasing tidal prism, a long-standing project goal aimed at helping to maintain tidal circulation. In addition, elevation increases due to sedimentation within the estuary have been so extensive that it would take decades for sea level rise to recover lost habitats in the project footprint. The proposed project restores these lost habitats in the short term to the benefit of multiple species. Input of sediments is expected to continue such that sea level rise is less likely to impact the project as designed.

The sea-level rise information provided through the CURRV project was supported by TETRP-specific modelling conducted by the United States Geological Survey as part of the Coastal Conservancy-led Marshes on the Margins project (2020). Sea level rise modeling analysis associated with the scenario development of CURRV suggested that the greatest potential impact of sea level rise might be increased frequency and/or duration of river mouth closure events, which would decrease the resilience of the system and result in compromised ecosystem function including more frequent mass mortality events. The proposed project will utilize the large amount of scientific information available to design a project that will be resilient to rising sea-levels, changing watershed hydrology, and other environmental changes over time.

**5. Project delivers multiple benefits and significant positive impact.**

In addition to the benefits outlined in the “2. Project is a good investment of state resources” section above, the project is part of a suite of projects that are intended to improve water quality at the California Mexico Border. Deteriorated water quality represents a substantial problem for the Tijuana Estuary, particularly within the river channel and along the beach, and has caused increasingly frequent closures for public health and safety. Sewage flows from Mexico provide the main pollution source. Construction of the South Bay International Wastewater Treatment Plant in the late 1990s has helped to alleviate some of the effluent discharge into the United States. However, during rain events or infrastructure failures, the capacity of the plant is exceeded, and sewage (raw and partially treated) flows through the river and into the Tijuana River Valley. Tijuana Estuary is listed as a Clean Water Act 303 (d) waterbody impaired by parameters including indicator bacteria, lead, low dissolved oxygen, eutrophic, nickel, pesticides, thallium, toxicity, trash, and turbidity. The proposed project will improve the water quality of the estuary and surrounding beaches by improving tidal circulation. The improved hydrological function of the estuary will result in an increase of appropriate wetland habitat, improving the baseline estuarine function of the project site. The improved baseline function of the estuary will result in improvements to water quality due to the ecosystem processes of coastal estuaries.

**6. Project planned with meaningful community engagement and broad community support.**

TETRP was introduced over 30 years ago and has received broad support throughout numerous sectors of the community. In addition to public meetings associated with environmental review, TETRP has been presented at multiple public meetings of the Tijuana River Valley Recovery Team and the TRNERR Advisory Council. The project team has engaged local citizens concerned about water quality and access issues, as well as the Tijuana River Valley Equestrian Association. This engagement has led to refinement of the design alternatives.

**PROJECT FINANCING**

<b>Coastal Conservancy</b>	<b>\$3,192,500</b>
<b>Project Total</b>	<b>\$3,192,500</b>

The costs shown in the above table are the costs of the remaining planning and permitting tasks needed to ready the project for construction. Conservancy funding is anticipated to come from

a Fiscal Year 2022/23 appropriation from the Greenhouse Gas Reduction Fund (GGRF) to the Conservancy for the Climate Ready program for purposes of nature-based projects that address sea level rise (Budget Act of 2022, as amended by AB 178, Chapter 45, Statutes of 2022). The Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act (Health and Safety Code (HSC) Sections 39710 – 39723) requires that GGRF funds be used to (1) facilitate the achievement of reductions of GHG emissions consistent with the Global Warming Solutions Act of 2006 (HSC Sections 38500 et seq), and (2) to the extent feasible, achieve other co-benefits, such as maximizing economic, environmental and public health benefits and directing investment to disadvantaged communities (HSC 39712(b)). The Global Warming Solutions Act of 2006 sets forth (among other things) certain GGRF funding priorities (HSC Section 38590.1). The California Legislature has also appropriated GGRF funds to the Conservancy to protect communities and natural resources from sea level rise (The Budget Act of 2022, as amended by AB 179, Chapter 249, Statutes of 2022).

The California Air Resources Board (“CARB”) has adopted guidelines that establish program goals that agencies must achieve with their GGRF funds. Consistent with the CARB 2018 Funding Guidelines, the proposed project will help the Conservancy meet its GGRF program goals because the project will:

- Facilitate GHG emission reductions (which includes carbon sequestration) and further the purposes of AB 32 and related statutes;
- Benefit Priority Populations (disadvantaged communities, low-income communities, or low-income households);
- Maximize economic, environmental, and public health co-benefits to the State; and
- Avoid substantial burdens to disadvantaged communities and low-income communities.

The proposed project will meet these objectives by planning for the implementation of a tidal prism and wetland habitat restoration project, which will reduce greenhouse gas emissions. Tidal wetland habitat is one of the most carbon dense ecosystems in the world. The project will also prioritize engaging the priority populations of the community to explore opportunities for community participation in the project design and implementation. Furthermore, the project will include tribal engagement with the goal of facilitating tribal stewardship, use of the site, and the development of meaningful acknowledgement. When implemented, the project will restore habitat and ecosystem function and contribute to sea-level rise resiliency due to improved flushing of sediments to the nearshore. The project also provides public health benefits to disadvantaged communities and visitors who use local beaches by contributing to improved water quality.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

The proposed project is undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code, as follows:

Pursuant to section 31251, the Conservancy may award grants to local public agencies and nonprofit organizations for the purpose of enhancement of coastal resources which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic

values. Consistent with this section, the proposed authorization provides funds to SWIA to complete the final planning work needed to enable construction of the project, which will enhance coastal resources disturbed by incompatible land uses, such as adjacent inappropriate development that has adversely impacted the tidal prism in the Tijuana Estuary.

As required by section 31252, the proposed project is consistent with the General Plans of the City of Imperial Beach and the City of San Diego as described below.

Consistent with Goal 2 of the Conservation and Open Space Element of the City of Imperial Beach General Plan, the proposed project will provide support to TETRP II/Phase 1 that will conserve and protect natural resources that are a key foundation of the city by planning for a restoration project in the Tijuana River Estuary.

Consistent with Policy CE-E.7 of the Conservation Element of the City of San Diego General Plan, the proposed project will provide support to a TETRP II/Phase 1 that will manage floodplains to address their multi-purpose use, including natural drainage and habitat preservation, by planning for a restoration project in the Tijuana River Estuary.

**CONSISTENCY WITH CONSERVANCY'S [2023-2027 STRATEGIC PLAN](#) GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 3.2, Restore or Enhance Habitats**, the recommended grant will complete one plan for the restoration of wetland habit to improve resilience to future sea-level rise and climate change.

Consistent with **Goal 4.1, Sea Level Adaptation Projects**, the recommended grant will complete one plan for the restoration of wetland habit to improve resilience to future sea-level rise using natural processes to enhance sediment management and habitat creation.

Consistent with **Goal 4.3, Multi-Benefit Nature-Based Climate Adaptation**, the recommended grant will complete one plan for a multi-benefit wetland restoration which will restore and conserve habitat, improve coastal processes such as sediment flushing and provide benefits to coastal water quality.

**CEQA COMPLIANCE:**

On March 24, 2023, DPR certified the Tijuana Estuary Tidal Restoration Program II Phase I Final Environmental Impact Report / Environmental Impact Statement (Final EIR) (Exhibit 4) and determined that the Tijuana Estuary Tidal Restoration Program II Phase I (TETRP II: Phase I) will have significant impacts on the environment. For the following significant impacts identified in the Final EIR, changes or alterations have been required in, or incorporated into, the conditions of approval that mitigate or avoid each significant impact:

- Hazardous Materials and Public Safety
- Cultural Resources
- Tribal Cultural Resources

For the following significant impacts identified in the Final EIR, changes or alterations have been required in, or incorporated into, the proposed project that minimize or reduce the significant impact, but not to a less than significant level, or changes or mitigation measures were considered but identified as infeasible due to specific economic, legal, social, technological, or other considerations:

- Hydrology and Water Quality (temporary)
- Biological Resources (temporary)
- Air Quality (temporary, cumulatively temporary)
- Noise (cumulatively temporary)

These impacts will remain significant and unavoidable. A Statement of Overriding Considerations (see Exhibit 5, and discussed below) is being adopted to address these significant and unmitigated impacts.

The impacts mitigated to less than significant are described below:

**1. Hazardous Materials and Public Safety Impacts (Less than significant impact with mitigation)**

*Impact:* Impacts associated with beach nourishment from potential exposure of the public participating in water-related recreational activities along the beach to bacteria levels that may exceed health standards will be considered significant.

Mitigation Measure Haz Mat-1: This mitigation measure specified in the Final EIR has been imposed upon the proposed project as a condition of approval, requiring that DPR or their authorized representative notify the County of San Diego Department of Environmental Health and Quality if water quality monitoring conducted for the proposed project identifies water quality violations. DPR or their authorized representative must also coordinate with the County of San Diego to provide advisory and/or closure signage as necessary to alert the public to exposure to potential health hazards.

**2. Cultural Resources Impacts (Less than significant impact with mitigation)**

*Impact:* Historic or archaeological resources could be substantially damaged or destroyed during excavation of underlying stable sediments within the project site resulting from restoration and enhancement activities. This damage or destruction of a cultural resource is considered a significant impact.

Mitigation Measure Cultural-1: This detailed mitigation measure within the Final EIR has been imposed upon the proposed project as a condition of approval requiring that a series of actions be implemented before, during, and after construction. The measure includes what actions should occur if archaeological resources or human remains are found during construction. These actions will be outlined in a Monitoring and Discovery Plan that will be prepared and approved by DPR and the USFWS's Regional Historic Preservation Officer prior to initiation of the restoration permitting process.

Mitigation Measure Cultural-2: This detailed mitigation measure within the Final EIR has been imposed upon the proposed project as a condition of approval requiring that a qualified archaeological monitor and a Kumeyaay cultural monitor shall be present during any project-related ground-disturbing activity.

Mitigation Measure Cultural-3: This detailed mitigation measure within the Final EIR has been imposed upon the proposed project as a condition of approval requiring that a training session for project construction personnel be conducted by a qualified archaeologist and Kumeyaay cultural monitor prior to the start of ground-disturbing activities.

Mitigation Measure Cultural-5: This detailed mitigation measure within the Final EIR has been imposed upon the proposed project as a condition of approval requiring that exclusionary fencing shall be used to avoid inadvertent disturbance of cultural resources within or in proximity to the area of potential effect, staging areas, and access roads. The temporary exclusionary fencing shall be placed parallel to staging areas or the access road's existing limits of disturbance in locations where they are within 15 feet of the site.

*Impact:* Unknown human remains could be substantially damaged or destroyed during excavation of underlying stable sediments within the project site resulting from restoration and enhancement activities. This damage or destruction of unknown human remains is considered a significant impact.

Mitigation Measure Cultural-4: This detailed mitigation measure within the Final EIR has been imposed upon the proposed project as a condition of approval requiring a series of actions if human remains are encountered during the proposed project.

### **3. Tribal Cultural Resources Impacts (Less than significant impact with mitigation)**

*Impact:* Unknown Tribal cultural resources could be substantially damaged or destroyed during excavation of underlying stable sediments within the area of potential effects resulting from restoration and enhancement efforts. This damage or destruction of an unknown Tribal cultural resource is considered a significant impact.

Mitigation Measure: See Mitigation Measures Cultural-1 through Cultural-5.

The significant and unavoidable impacts are described below:

#### **1. Hydrology and Water Quality (Temporary Significant Impact)**

*Impact:* Soil management activities involving beach nourishment will potentially generate or release pollutants that are in violation of applicable federal or state standards. Bacteria release due to placement of material from the restoration site will contribute incrementally to existing water quality impairments along the beach and has the potential to result in temporary, localized exceedance of regulatory limits (e.g., bacteria). These temporary impacts resulting from soil management activities will be significant.

Mitigation Measure Water-Quality-1: This mitigation measure specified in the Final EIR has been imposed upon the proposed project as a condition of approval requiring that prior to beach nourishment with material excavated from the restoration and/or channel enhancement

area, soil testing will be conducted for contamination for regulated constituents (including bacteria). If testing confirms contamination of soils in conflict with regulations, contaminated soils will be diverted for transport off-site to an appropriate reuse or disposal site. If testing confirms soils would not conflict with regulatory limits, beach nourishment will be initiated.

Mitigation Measure Water-Quality-2: This mitigation measure specified in the Final EIR has been imposed upon the proposed project as a condition of approval requiring that water quality monitoring be conducted for regulated constituents within 100 feet (down from placement) during beach nourishment. If water quality violations are identified, additional samples will be taken along the beach adjacent to the river mouth and/or other stormwater input locations to confirm violations are due to beach nourishment associated with TETRP II Phase I. If the proposed project is confirmed responsible for water quality violations, then beach nourishment will stop and soil in the immediate area of excavation will be diverted off-site to an appropriate reuse or disposal site. Beach nourishment will continue when excavation has moved to a location expected to have acceptable quality and testing confirms no violations are anticipated. Twice weekly water quality monitoring will be reinitiated to identify additional violations, and provide for diversion, if necessary.

Implementation of Mitigation Measure Water Quality-1 and Quality-2 will minimize the potential for and provide information related to water quality violations and halt the potential for continued impact. However, testing and monitoring may not identify inactive or dormant bacteria and does not necessarily avoid the impact that has already occurred. Thus, potential temporary impacts to water quality will remain significant and unavoidable.

## **2. Biological Resources Impacts (Temporary Significant Impact)**

*Impact:* If construction continues through the breeding season, construction noise will result in temporary significant impacts to migratory and federally and state listed special-status bird species. During excavation and construction, noise generated by earth-moving equipment and trucking is mobile and will continually move throughout the site. The dynamic nature of the noise-generating construction equipment throughout the project site will limit the length of time a certain area is exposed to increased noise levels. Overall, noise will increase in adjacent habitats with the potential to nesting birds and, as such, temporary adverse biological impacts on migratory and federally and state-listed bird species as a result of noise associated with construction will occur and will be significant and unavoidable.

Potential mitigation measures, including noise walls and restriction of construction activities to outside the breeding season, were considered to reduce adverse indirect noise impacts which will occur during project construction activities. However, an intervening noise wall within the restoration grading footprint will have to be continually mobile or constructed in unstable soil conditions along the wetland and/or channel edge and will result in direct impacts to adjacent habitat. The impacts associated with construction of the noise walls will reduce or eliminate the value of this noise buffer and, thus, is considered infeasible.

It may be feasible to construct temporary noise walls along Monument Road if work extends into the breeding season, but this will be dependent on the specific conditions of each location. Additionally, noise walls may restrict movement of other species across the road depending on

other adjacent habitat types. Upon determination of the need to construct during the breeding season, a detailed feasibility analysis of noise wall construction will be conducted. However, at this time, the proposed project cannot commit to construction of a noise wall that will adequately reduce noise levels of trucking during the breeding season.

A project schedule requiring work to be completely conducted outside of the bird nesting season was considered; however, this will completely halt construction between February 15 and September 1. Depending on the start date for construction, the stop and start schedule could extend the overall construction duration substantially and the longer construction period could result in additional time of disruption to birds. A longer duration will potentially result in greater impacts than temporary construction noise during the breeding season, in part because the construction equipment will be mobile and only a portion of nesting habitat will be within the range of the construction noise at a given time. Thus, requiring work to occur completely outside of the nesting season was determined infeasible.

Alterations in the proposed project, such as project design features (PDFs), have been required to avoid or substantially lessen this temporary noise impact to sensitive biological species. PDFs have been included in the proposed project to minimize construction equipment noise. Additionally, removal of vegetation will be limited to outside of the breeding season, and prior to vegetation clearing a pre-construction survey by a qualified biologist will be required. During construction, areas may be fenced if determined necessary to reduce the ability of light-footed Ridgway's rails to enter active construction zones. Potential mitigation measures such as noise walls and restriction of construction activities to outside the breeding season were considered, but ultimately determined infeasible as outlined above. Because mitigation is not available to eliminate or reduce this temporary noise impact to sensitive biological species associated with the proposed project and soil management activities, it will remain significant and unavoidable.

### 3. Air Quality (Temporary Significant Impact, Cumulatively Temporary Significant Impact)

*Impact:* Temporary construction emissions associated with the proposed project and soil management activities will result in a significant impact to regional air quality. Construction-generated particulate matter equal to or less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) emissions will exceed the County's screening level daily thresholds and particulate matter equal to or less than 10 micrometers in diameter (PM<sub>10</sub>) emissions will exceed the County's daily and annual thresholds.

Mitigation Measure Air Quality (AQ)-1: This mitigation measure requires the construction contractor to reduce fugitive dust emissions associated with off-road equipment and heavy-duty vehicles through measures such as watering exposed soils, stabilizing exposed soils, covering haul trucks and stockpiles, clean paved surfaces, slow speeds on unpaved surfaces, and finish coverings of disturbed areas quickly.

Alterations in the proposed project, such as mitigation, have been required to avoid or substantially lessen this impact. Mitigation Measure AQ-1 will reduce fugitive dust emission estimates associated with the enhancement/ restoration and soil management activities. With implementation of Mitigation Measure AQ-1, PM<sub>2.5</sub> emissions will be mitigated below the thresholds of significance. However, PM<sub>10</sub> emissions will continue to exceed the daily

threshold of significance under CEQA. While Mitigation Measure AQ-1 will substantially reduce PM10 emissions (an approximate 72% reduction in fugitive PM10), PM10 emissions will continue to exceed the threshold of significance. Therefore, fugitive dust emissions of PM10 could continue to lead to a violation of an applicable air quality standard. Because impacts must occur for the proposed project to be implemented, this air quality impact will remain significant and unavoidable.

*Impact:* As discussed above, temporary construction emissions associated with the proposed project and soil management activities will result in a significant impact to regional air quality. Because the proposed project will produce a significant air quality impact in an area that is out of attainment, it is considered to significantly contribute to the cumulative air quality impact.

Mitigation Measure: See Mitigation Measure Air Quality-1.

Alterations in the proposed project, such as Mitigation Measure Air Quality-1, have been required to avoid or substantially lessen this impact. However, since details are not available at this time to determine with certainty that mitigation will fully reduce emissions from the proposed project to below a level of significance, the proposed project will potentially make a considerable temporary contribution to a significant cumulative impact related to air quality. Therefore, this impact to air quality will remain significant and unavoidable.

#### **4. Noise (Cumulatively Temporary Significant Impact)**

*Impact:* It is possible that multiple projects will have overlapping haul routes in proximity to a residential area such that their noise could combine and result in an exceedance of noise level thresholds. If another cumulative project occurs during the same timeframe as the construction of TETRP II Phase I, impacts due to cumulative noise levels could be above significant levels at nearby receptors. Thus, in certain circumstances, the proposed project will make a temporary cumulatively considerable contribution to a significant noise impact.

As discussed under Biological Resources, it may be feasible to construct temporary noise walls that will help to buffer residential areas from haul truck noise; however, this will be dependent on the specific conditions, such as available shoulder width and nearby known sensitive habitat or species. Additionally, noise walls may restrict movement of wildlife across the road depending on other adjacent habitat types. Dependent on timing, the ability to construct a noise wall may be restricted due to breeding seasons of sensitive adjacent bird species. Thus, at this time, the proposed project cannot commit to construction of a noise wall that will adequately reduce noise levels of trucking noise that could combine with other projects overlapping haul route noise. Other methods of reducing cumulative noise from haul trucks were not identified. Because mitigation is not available to eliminate or reduce this temporary cumulative noise impact, it will remain significant and unavoidable.

#### Project Benefits

The proposed project will have the following substantial benefits:

##### **1. Improved Habitat Quality and Biological Conditions**

The tidal and estuary restoration is designed to enhance the Tijuana Estuary and contribute to the ecological function of the estuary. Although impacts will occur as identified in the Final EIR

analysis, they will occur to increase the overall habitat value of the site and increase wetlands within the estuary as a whole. Some permanent habitat conversion is intentional, to increase higher value/functioning habitat at the expense of lower quality habitat currently existing on the site.

Vegetation impacts identified for the proposed project are temporary and are a result of the disturbance that must occur to alter elevations to achieve appropriate wetland conditions and enhance the overall habitat value of the site. The temporary disturbance of habitat within the project site is unavoidable for implementation of the proposed project. After restoration is complete, higher quality vegetation communities will replace these disturbed areas.

In the long term, biological improvements, specifically the establishment of wetland areas that expand the functional estuary complex, will be beneficial to certain wildlife species once vegetation has established. The proposed project will generally transform existing, lower quality disturbed habitats to sensitive coastal salt marsh wetland habitats. Lower value habitats will be graded and established as higher quality habitats such as salt marsh and mudflat, with intertidal channel connections. As a result of the proposed project, an increase in overall acreage of high value vegetation communities will occur and resources in the estuary will benefit from the restored hydrologic connectivity throughout the estuary complex. In addition, the proposed project is consistent with the goals and objectives of the City of San Diego's Multi-Habitat Planning Area to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats.

## **2. Improved Avian Habitat**

Following restoration, improved water quality conditions will result in higher biological productivity in restored mudflat areas over the long term and will have direct benefits to foraging birds, such as the light-footed Ridgway's rail, California least tern, western snowy plover, and Belding savannah sparrow as these species' nesting and foraging habitat will increase with implementation of the proposed project. The condition of foraging habitat is also expected to improve as a result of restoration due to improved tidal exchange and sediment/water quality. The improved tidal circulation and restoration to appropriate habitat elevations will enhance environmental conditions for the prey communities that bird species feed on.

## **3. Improved Fish Habitat**

The proposed project will result in long-term beneficial impacts to Essential Fish Habitat by improving water quality and increasing tidal channel and mudflat habitat. The conditions of existing subtidal habitat will also be enhanced by increasing tidal influence within the estuary. This additional habitat will support local fish populations and benefit Essential Fish Habitat within the project area.

## **4. Improved Water Quality**

The proposed project will provide a long-term water quality improvement throughout the estuary by enhancing the ability of the estuary to drain incoming freshwater flows currently inhibited by reduced channel capacity. Localized hydraulic efficiency of the estuary will increase over existing conditions by removing sediment to improve tidal prism and flow exchange, as

well as flood protection. Circulation will increase with channel deepening within the restoration area. Overall, alterations to drainage patterns and circulation within the estuary will benefit hydraulic efficiency and biological resources in the estuary. The estuary is currently identified by the Regional Water Quality Control Board on the Section 303(d) list as water quality impaired by parameters including indicator bacteria, lead, low dissolved oxygen, eutrophic, nickel, pesticides, thallium, toxicity, trash, and turbidity. Implementation of the proposed project will help to address these water quality impairments through natural estuary functions by providing sediment management and altering drainage patterns and circulation to improve existing constrictions that restrict freshwater drainage, as well as tidal flow and water circulation.

### **5. Support Coastal Wetland Ecology**

San Diego coastal wetlands have experienced substantial transformations over the past century due to human development and influence. The San Diego region once had a vast network of coastal wetlands; however, development and urban pressures have fragmented this network and impaired the coastal estuaries that remain. Coastal systems in San Diego provide critical functions in support of wildlife and plant species, including migratory shorebird habitat, habitat for various federally and state-listed species, and nursery and refugia for fish species. Historically, the estuary supported a variety of habitats, including intertidal mudflat and saltmarsh. Existing estuary habitat has experienced considerable changes to the range of habitats and ecosystem function. Overall, an approximately 50% decrease in subtidal and mudflat habitats, and a 42% decrease in salt marsh has occurred. While the proposed project will create a substantial change to the existing estuary environment, the modifications are considered an improvement and biologically beneficial, as coastal salt marsh/wetland habitats are a valuable resource that has historically decreased in the region. The proposed project will result in a net gain of more biologically productive habitat with the restoration of a functional mix of tidal salt marsh habitats. Thus, overall changes to the natural environment as a result of the proposed project are considered beneficial to the broader estuary ecosystem. In addition, the proposed project will work towards achieving the restoration goals and objectives of the Tijuana River National Estuarine Research Reserve Comprehensive Management Plan to restore degraded natural habitats.

### **6. Sea Level Rise Adaptation**

Implementation of the proposed project will improve the ability of the estuary to adapt to anticipated future sea level rise. The proposed project restoration design is based on the consideration of potential climate change impacts including sea level rise. Grading of the project site to create slopes with a gradual habitat gradient will create opportunities both for near-term wetland function as well as future wetland function since enhancement will allow for upslope migration of salt marsh in response to sea level rise. With the anticipated design, the proposed project aims to create a more resilient ecosystem that can better accommodate future climate change scenarios, including sea level rise. In addition, specific soil management options provide soft, natural solutions through beach nourishment consistent with Sea-Level Rise Policy Guidance by including soft solutions as a component to shoreline protection.

### **7. Vector Control**

Increased circulation and reduction of impounded water from implementation of the proposed project will result in benefits for mosquito abatement. These improvements will increase water flow and salinity levels, thereby reducing the ability of vector species, such as *Culex tarsalis*, *C. pipiens*, and *C. peus*, which are known transmitters of brain encephalitis like West Nile Virus to human hosts and other mammals, to reproduce. The proposed project will result in a less-conducive vector breeding condition and reduce the public health and safety risk associated with mosquito-borne diseases compared to existing conditions.

#### **8. Beneficial Reuse of Material**

Soil management activities proposed as part of TETRP II Phase I will involve excavation, requiring up to 514,000 cubic yards net export of soils from the restoration footprint and channel enhancement area. The proposed project will prioritize beach nourishment, and will place excavated material within the swash zone or on dry portions of the beach depending on ultimate sand content and grain size of material available for beneficial reuse. This strategy will support the project objective of beach restoration and will support barrier dune development as well as minimize the need for transport of material longer distances from the project site. 9. Employment Opportunity Implementation of the proposed project will generate new construction employment opportunities over the multi-year construction period. Employment opportunities will continue during proposed project operation for maintenance, if identified. This will provide an economic benefit to the community, and potentially the region as a whole.

#### **The Conservancy’s CEQA Findings:**

Staff has independently evaluated the Tijuana Estuary Tidal Restoration Program II Phase 1 Final Environmental Impact Report / Environmental Impact Statement and the Tijuana Estuary Tidal Restoration Program II Phase 1 Statement of Overriding Conditions and Mitigation Monitoring and Reporting Program (MMRP) adopted by DPR on March 24, 2023. Staff recommends that the Conservancy find that the proposed project will have a significant effect on the environment in the areas of Hazardous Materials and Public Safety, Cultural Resources, and Tribal Cultural Resources, and that these effects will be reduced to a level less than significant with mitigation. Staff recommends that the Conservancy find that the proposed project will have significant, unavoidable effects in the areas of Hydrology and Water Quality (temporary), Biological Resources (temporary), Air Quality (temporary, cumulatively temporary), and Noise (cumulatively temporary). Staff recommends that the Conservancy adopt the Statement of Overriding Conditions set forth below.

#### **Statement of Overriding Considerations**

The project has numerous region-wide environmental benefits, social benefits, and public health and safety benefits as specifically identified above in the “Project Benefits” section. These benefits substantially outweigh the unavoidable temporary adverse environmental effects of the project.

Upon approval of the project, Conservancy staff will file a Notice of Determination.