

COASTAL CONSERVANCY

Staff Recommendation
June 4, 2009

**SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND
ENHANCEMENT PROJECT**

File No. 09-016-01
Project Manager: Megan Johnson

RECOMMENDED ACTION: Authorization to disburse up to \$793,200 to the Port of San Diego for marine debris removal and wetland enhancement in South San Diego Bay, San Diego County.

LOCATION: South San Diego Bay, Cities of National City and Imperial Beach, County of San Diego

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: [Project Location and Site Map](#)
 - Exhibit 2: [National Coastal Wetlands Conservation Grant Award Letter](#)
 - Exhibit 3: [CEQA and Coastal Development Permit exemptions for Emory Cove and A-8 Anchorage](#)
 - Exhibit 4: [Project Letters](#)
-

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251 - 31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement to the San Diego Unified Port District of up to one hundred fifty thousand dollars (\$150,000) in funds already awarded to the Conservancy by the U.S. Fish and Wildlife Service, to fund marine debris removal and wetland enhancement in South San Diego Bay; and up to an additional six hundred forty-three thousand two hundred dollars (\$643,200) if the National Oceanic and Atmospheric Administration awards funds to the Conservancy for the project. Prior to the disbursement of funds, the San Diego Unified Port District shall submit for the review and written approval of the Conservancy’s Executive Officer a work program, including budget and schedule, and any contractors to be engaged for these tasks.”

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

Staff further recommends that the Conservancy adopt the following findings:

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

1. The proposed project is consistent with the Project Selection Criteria and Guidelines, last updated by the Conservancy on September 20, 2007.
2. The proposed authorization is consistent with the purposes and objectives of Chapter 6 of Division 21 of the Public Resources Code regarding the enhancement of coastal resources.
3. The proposed project serves a greater-than-local need.”

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize the disbursement of up to \$793,200 to the San Diego Unified Port District (Port) for marine debris removal and wetland enhancement in South San Diego Bay. This project will restore eighty acres of subtidal habitat through the removal of marine debris and will enhance 28.2 acres of salt marsh habitat through the removal of non-native invasive plants and revegetation with native species. The project will benefit ecological resources and public enjoyment of the bay. The project will be funded by two separate federal grants, the National Coastal Wetlands Conservation Grant from the U.S. Fish and Wildlife Service (USFWS) and a grant under the American Recovery and Reinvestment Act from the National Oceanic and Atmospheric Administration (NOAA). The USFWS grant has already been awarded and a decision on the NOAA grant is pending.

Approximately 1,625 acres in south San Diego Bay have been identified through existing local plans as potential restoration or enhancement areas. Using these local plans as guidance, a partnership between the Port, the USFWS, and SWIA, a local non-profit, has developed to restore and enhance 365 acres of coastal habitat, including 345 acres of tidal habitat and 20 acres of wetland upland transition and upland habitat at the south San Diego Bay Salt Ponds, the Chula Vista Wildlife Reserve, and other locations in and around south San Diego Bay.

Over the past 150 years, dredging and filling operations to accommodate maritime and urban developments have resulted in the loss of 42 percent of San Diego Bay’s historic shallow subtidal habitat, 84 percent of its intertidal mudflat habitat, and 70 percent of its salt marsh habitat. Most of the native upland and wetland/upland transition habitat has also been lost to development. Today, South San Diego Bay contains more than 90 percent of the remaining historic intertidal habitat that was once dominate throughout the Bay. The Bay’s coastal habitats support seven federally or state listed threatened and endangered species, tens of thousands of migratory birds that travel along the Pacific Flyway, and a diverse array of fish. South San Diego Bay also provides the greatest opportunities for restoring the Bay’s historic coastal habitats.

In the first component of the project, the Port will enhance eighty acres of shallow subtidal habitat in an area referred to as the A-8 Anchorage through removal of marine debris (Exhibit 1). This portion of the project will be paid for using the pending NOAA grant and if this grant is not awarded, this portion of the project will not be implemented. Expanding tidal habitat in San

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

Diego Bay will create new fish habitat, which will in turn improve foraging opportunities for pelicans, herons, gulls, and nesting seabirds. This site is situated in close proximity to high quality salt marsh and eelgrass (*Zostera marina*) beds. The A-8 Anchorage has a high density of hazardous and toxic marine debris as a result of over twenty years of unlimited free anchorage at the site. In September 2008, the Board of Port Commissioners declared that anchorage at A-8 was no longer allowed. Subsequently, the Port began working to clean-up the site to improve habitat quality, and to potentially allow recreational boating anchorage in the future.

The Port has conducted two previous debris removal phases at this site, during which they removed approximately 7,600 pounds of marine debris, including items such as batteries, generators, engines, and fuel tanks. The Port estimates that approximately 400 large items, or about 40,000 pounds of debris remains at the site. Removal of debris will begin in September 2009, at the end of the 2009 California least tern nesting season. The Port's dive team and a crane barge contractor will work jointly to remove all remaining debris. All debris will then be transferred to land, segregated, weighed, and hauled to recyclers or to an appropriate disposal facility. Every effort will be made to remove all items identified by the survey with a focus on removing all debris measuring one meter or larger, as well as all potentially hazardous debris regardless of size.

The second component of this project is the enhancement of high coastal salt marsh and upland transitional habitat at Emory Cove. This portion of the project will be paid for by the USFWS grant. Enhanced upland/ wetland transition habitat at Emory Cove will provide refuge for shorebirds during high tides and new foraging and nesting habitat for Belding's savannah sparrow. Emory Cove consists of 28.2 acres of salt marsh habitat. The offshore area of Emory Cove was also once used as an unlimited free anchorage and debris thrown overboard during that time has accumulated within the subtidal and intertidal habitats along the western edge of the bay. This site was also subject to illegal dumping and trampling due to its proximity to the highway, and the invasive plant, sea fig, has further degraded the site's native habitats.

This area will be restored and enhanced through the removal of non-native vegetation, primarily sea fig (*Carpobrotus edulis*), the removal of debris (e.g., tires, shopping carts, plastics, containers) that has been dumped on the site over the years, and the installation of site-appropriate native plants.

Initial work will involve the removal of an estimated twenty five tons of debris and sea fig, which currently covers 3.8 acres of the site. Following application of a systemic herbicide, volunteers will manually remove plants that are in close proximity to native vegetation and a tractor will be used to uproot the remaining dead vegetation using a brush rake attachment to avoid significant soil removal. Enhancement activities will involve over 850 volunteer hours from community organizations.

Volunteers from the San Diego Oceans Foundation, the Coronado Rotary Club, and the San Diego Audubon Society will assist in recruiting and training volunteers for debris removal, invasive species control, and native vegetation planting and will provide education to volunteers about ocean and bay processes and coastal conservation efforts. After removal of the debris and invasive plants, native plants in container stock and native plant seeds collected from the surrounding area will be planted or distributed throughout the disturbed portions of the site. The species to be planted will be determined based on existing elevations at the planting sites. The site appears to have the appropriate characteristics for supporting the endangered plant, salt

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

marsh bird's-beak (*Cordylanthus maritimus maritimus*); therefore, the Port will work with the USFWS in an effort to establish this listed species on the site. In addition to the current needs for habitat restoration, the species that inhabit already threatened ecosystems like coastal salt marshes will need refugia both in time and space to adapt to changes that may occur as a result of global climate change. The provision of upland buffer/transitional zones at Emory Cove will be especially critical for providing salt marsh habitat with the area it needs to shift landward.

Site Description: The two project sites are located in South San Diego, in the Otay and Sweetwater River Watersheds (Exhibit 1). The A-8 Anchorage is situated in the City of National City, just to the northwest of the Sweetwater River flood control channel and close to the Sweetwater Marsh unit of the San Diego Bay National Wildlife Refuge (NWR). The Emory Cove site is located on Port land in the southwest corner of the bay, adjacent to the South San Diego Bay unit of the San Diego Bay NWR and the Bayshore Bikeway.

Project History: The need to restore, enhance, and protect native coastal habitat in and around San Diego Bay in perpetuity has been addressed in existing local planning documents such as the San Diego Bay Integrated Natural Resource Management Plan (INRMP) (U.S. Navy 2000), the San Diego Bay National Wildlife Refuge Comprehensive Conservation Plan (CCP) (USFWS 2006), the Port of San Diego Master Plan (Port 2007), and the Draft Restoration and Enhancement Plan for Tidelands to Benefit San Diego Bay's Natural Resources (Port 2008). These local planning documents all emphasize the need to enhance and expand these existing resources to ensure sustainable distributions, diversity, and abundance of wetland-associated species in their historic range. The INRMP and the CCP collectively identify approximately 1,625 acres within south San Diego Bay as future coastal wetland restoration and/or enhancement sites.

Conservancy staff began working with the Port and the USFWS in 2007 to develop a comprehensive wetland restoration program to address the goals and objectives identified in these plans. In December 2008, the Conservancy, in partnership with the Port, the USFWS, and SWIA was awarded a grant from the National Coastal Wetland Conservation Grant from the USFWS (Exhibit 2). In April 2009 this same partnership of organizations submitted a proposal to NOAA under the American Recovery and Reinvestment Act. The award decisions for the NOAA grant have not yet been made.

PROJECT FINANCING:

Coastal Conservancy (via NOAA)	\$643,200 (pending)
<u>Coastal Conservancy (via USFWS)</u>	<u>150,000</u>
Total Project Cost	\$793,200

Staff expects to use funds awarded to the Conservancy from the National Coastal Wetlands Conservation Grant Program through the USFWS and from the American Recovery and Reinvestment Act through NOAA. The National Coastal Wetlands Grant has been awarded to the Conservancy for a larger South San Diego Bay restoration project that includes wetland

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

restoration at the South San Diego Bay unit of the NWR and the Chula Vista Wildlife Reserve. The funds from this grant are available for expenditure when USFWS, acting as lead agency, completes NEPA, which is expected in early fall 2009. The NOAA grant has not yet been awarded.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resource Code Sections 31251-31270.

Consistent with Section 31251 of the Public Resources Code, the proposed project would award a grant to a public agency to undertake activities necessary for the enhancement of the natural and scenic character of San Diego Bay, which has been impacted by improper location of improvements, human-induced events, and incompatible land uses and has suffered the loss of natural and scenic values. This project will restore and enhance the biological resources of San Diego Bay by removing debris and invasive species and revegetating with native plants.

As required in Section 31252, the proposed project areas have been identified in the Port's Master Plan as needing public action to resolve existing resource protection problems, as described in the "Consistency with Local Coastal Program Policies" section, below.

Section 31253 permits the Conservancy to provide up to the total cost of any coastal resource enhancement project, consistent with established project eligibility and priority factors. In determining the amount of Conservancy funding for this project, the factors identified in Section 31253 have been considered and applied, as described in detail below, under the heading "Consistency With Conservancy's Project Selection Criteria & Guidelines".

**CONSISTENCY WITH CONSERVANCY'S 2007
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 5, Objective B** of the Conservancy's 2007 Strategic Plan, the proposed project would enhance or restore 108.2 acres of subtidal and tidal wetland habitat by removing debris and invasive species and revegetating with native plants.

**CONSISTENCY WITH CONSERVANCY'S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on September 20, 2007, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

3. **Support of the public:** The community and public agencies concerned with the bay's restoration are in full support of the project. The A-8 Anchorage was a very popular public anchorage and if the debris is removed from this site it may once again be available for public use. Emory Cove will be enhanced through volunteer efforts of several community organizations that support the project. Exhibit 4 provides letters of support from County Supervisor Greg Cox, the Environmental Health Coalition, the USFWS and the San Diego Audubon Society.
4. **Location:** The proposed project would be located within the coastal zone of the Cities of Imperial Beach and National City, County of San Diego.
5. **Need:** Conservancy funds are needed to complete the project because the grant funds awarded and potentially awarded to the Conservancy are the major funding sources for the project.
6. **Greater-than-local interest:** Protecting and enhancing San Diego is of regional interest because it supports federal and state listed species, serves as a stopover along the Pacific flyway, and is a destination for visitors from around the County and the State for bird watching and nature enjoyment.

Additional Criteria

8. **Resolution of more than one issue:** The proposed project will remove hazardous marine debris and restore salt marsh habitat to restore and enhance subtidal and wetland habitat for ecological benefits and public enjoyment.
9. **Leverage:** See the "Project Financing" section above.
12. **Readiness:** The Port is prepared to begin work immediately. Debris removal has already begun at Emory Cove through volunteer labor.
15. **Cooperation:** The proposed project is a collaborative effort between the Port and several non-profit organizations such as the San Diego Oceans Foundation, the Coronado Rotary Club, and the San Diego Audubon Society.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The A-8 project site is located in the National City Bayfront area of the Port Master Plan, which has been certified by the California Coastal Commission. The Port Master Plan land use designation within the limits of the A-8 project site is Small Craft Anchorage/Mooring. The project conforms to the Port Master Plan because it will provide the possibility for reopening the site as an anchorage under the certified use designation by removing marine debris. In addition, the removal of marine debris will protect wildlife resources. The A-8 project was approved under Sections 8.a(13) of the Port's coastal development permit regulations for maintenance of existing facilities for wildlife habitat areas (Exhibit 3).

Emory Cove is located in the Coronado planning area of the Port Master Plan. The Port Master Plan land use designation within the limits of the Emory Cove project site is Estuary Habitat. The project conforms to the Port Master Plan because it will enhance estuary habitat by removing invasive species and debris.

COMPLIANCE WITH CEQA: The proposed project is categorically exempt from the provisions of CEQA under 14 California Code of Regulations, Section 15301 (Class 1) exempting maintenance of existing facilities for wildlife habitat areas. The Port of San Diego filed CEQA exemption notices as the lead agency (Exhibit 3). Staff will file a Notice of Exemption upon approval of the proposed authorization.

The following analysis was prepared to address the proposed CEQA Guideline amendments for greenhouse gas emissions.

Emory Cove Wetland Enhancement

The restoration of Emory Cove (EC) will not have a significant climate change impact. Once restoration is complete, no new green house gas (GHG) emissions will be produced. During the restoration phase of the project, there will be a short-term, less than significant increase in GHG emissions.

As part of the Port's approved "Green Port Policy", the Board of Port Commissioners is committed to reducing GHG contributions and other air emissions. Therefore, Port staff is in the process of developing a "Climate Action Plan", to address these issues. The plan will be presented to the Board of Port Commissioners by the end of 2009.

The Port anticipates eight four-hour work party events consisting of 50-100 volunteers per event, for a maximum of 800 total volunteers. Due to limited parking on-site, half of volunteers will be brought by bus from one of the local universities and the remaining volunteers will carpool to EC. Eight roundtrip bus trips and a maximum of 25 roundtrip car trips per event, or 200 total roundtrips, are expected. The Port anticipates using a trash truck for each four-hour work party to remove invasive plants and debris. In addition to the eight work parties, there will be one eight-hour day of work using a tractor to remove invasive plants. The Port has eleven hybrids fleet vehicles. Port staff will be commuting to the project site in one of these hybrids.

Using, Urbemis 2007, an estimated 300 lbs. of CO₂/day will be generated for a total of 2,700 lbs of CO₂. The restoration of EC, with the planting of native plants, will assist with the absorption of CO₂, since tidal marshes are such biologically productive habitats, they capture significant amounts of carbon from the atmosphere. Unlike many freshwater marshes, tidal salt marshes release only negligible amounts of methane, a powerful greenhouse gas. As a result, the carbon storage benefits of tidal salt marshes may exceed those of freshwater marshes. Tidal marshes may be more efficient per unit area than trees when it comes to removing carbon from the atmosphere.

A-8 Anchorage Marine Debris Removal

The removal of debris in the A-8 Anchorage (A-8) will not have a significant climate change impact. Once restoration is complete, no new green house gas (GHG) emissions will be produced. During the restoration phase of the project, there will be a short-term, less than significant increase in GHG emissions.

*SOUTH SAN DIEGO BAY MARINE DEBRIS REMOVAL AND WETLAND ENHANCEMENT
PROJECT*

The Port anticipates it will take fifteen days of work with a crane mounted on a barge to remove the 400 items of debris in the A-8 anchorage. Two small work boats will be assisting the barge. Divers will also assist in debris removal working from a boat over a fifteen day time frame. The work boats and dive boat will turn off their engines once on-site. The crane is shut down during crew breaks and does not idle for longer than fifteen minutes to save fuel. The Port's Green Port Policy encourages carpooling. Therefore, the barge and dive crews will be provided with carpooling information. An estimated 30-60 vehicle trips are anticipated for this project. A 40-yard dumpster will be used to collect debris. The dumpster is anticipated to be emptied a maximum of six times during this project. The Port has eleven hybrids fleet vehicles. Port staff will be commuting to the project site in one of these hybrids.

Using, Urbemis 2007, an estimated 500 lbs. of CO₂/day will be generated for a total of 7,500 lbs of CO₂. The debris to be removed from the A-8 is anticipated to be consistent with debris already removed. This debris included fuel tanks, engines, propane tanks, refrigerators, electronic equipment and other debris. The removal of this debris will prevent the potential of fuel spilling into the marine environment because many of the debris items are fuel tanks and engines that contain fuel, thus eliminating the potential of significant amounts of carbon from entering the atmosphere.