

COASTAL CONSERVANCY

Staff Recommendation
December 6, 2018

REDWOOD CITY HARBOR BENEFICIAL USE PROJECT

Project No. 18-040-01
Project Manager: Amy Hutzel

RECOMMENDED ACTION: Authorization to disburse up to \$5,700,000 to the U.S. Army Corps of Engineers to place dredged sediment from Redwood City Harbor at the Cullinan Ranch, Montezuma and Hamilton-Bel Marin Keys wetland restoration sites on the shoreline of San Francisco Bay in Solano and Marin counties, and adopt findings under CEQA.

LOCATION: Redwood City Harbor, San Mateo County

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: [Project Map](#)

Exhibit 2: [Final Environmental Assessment/Environmental Impact Report, Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015-2024](#)

Exhibit 3: [June 16, 2005 Conservancy Staff Recommendation for the Bel Marin Keys Unit V Expansion of the Hamilton Wetlands Restoration Project: Certification of the Final Supplemental Environmental Impact Report/Environmental Impact Statement Bel Marin Keys Expansion of the Hamilton Wetland Restoration Project, April 2003](#)

Exhibit 4: [Project Letters](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the Executive Officer to enter into an agreement with the U.S. Army Corps of Engineers (“the Corps”) to act as non-federal sponsor for beneficial placement of dredged sediment from the Redwood City Harbor at the Cullinan Ranch, Montezuma and Hamilton-Bel Marin Keys wetland restoration sites on the shoreline of San Francisco Bay in Solano and Marin counties; and authorization to disburse an amount not to

exceed five million seven hundred thousand dollars (\$5,700,000) to the Corps pursuant to the agreement.”

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 authorization is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, regarding San Francisco Bay Area Conservancy Program.
 2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
 3. The Conservancy has independently reviewed and considered the information contained in the *Final Environmental Assessment/Environmental Impact Report, Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015-2024*, which was certified by the San Francisco Bay Regional Water Quality Control Board on May 13, 2015 pursuant to the California Environmental Quality Act (“CEQA”), and is attached to the accompanying staff recommendation as Exhibit 2. The Conservancy finds that placement of Redwood City Harbor dredged sediment at Montezuma and Cullinan Ranch will have potentially significant effects in the area of Cultural and Paleontological Resources, and that these effects will be mitigated through feasible mitigation measures as described in greater detail in the accompanying staff recommendation.”
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PROJECT SUMMARY:

Staff recommend that the Conservancy authorize the Executive Officer to enter into a memorandum of agreement (MOA) with the U.S. Army Corps of Engineers (Corps) to act as non-federal sponsor for the Corps to beneficially use sediment dredged from the Redwood City Harbor at wetland restoration sites in San Francisco Bay that are fully permitted for the receipt of dredged sediment, and to disburse \$5,700,000 pursuant to the MOA.

The Corps dredges approximately 1.5 million to 2 million cubic yards (mcy) of sediment each year as part of its Operations and Management (O&M) dredge program in San Francisco Bay, maintaining federal navigation channels for shipping. Redwood City Harbor is currently dredged by the Corps every two years, and has a planning volume of 300,000 to 600,000 cubic yards per dredge episode, to maintain its authorized 30-foot depth.

The sediment dredged by the Corps must be placed at permitted placement sites, such as the Deep Ocean Disposal Site (DODS) or In-Bay disposal sites or at beneficial use sites. The Corps must choose the option known as the Federal Standard, which is the placement alternative that is the least costly, consistent with sound engineering practices and that meets federal environmental requirements. (See 33 CFR § 335.7.) If beneficial placement is not the Federal Standard for a dredging project, the Corps can use a beneficial placement site, but the cost that exceeds the Federal Standard (referred to as the incremental cost) must be paid either entirely by a non-

federal sponsor, or cost-shared between the Corps and a non-federal sponsor under existing authorizations.

Currently, there are two restoration sites in San Francisco Bay accepting dredged sediment for beneficial use: Cullinan Ranch and Montezuma, both in Solano County. In addition, Bel Marin Keys in Marin County has gone through environmental review and permitting and is in the site preparation phase; Bel Marin Keys will be available to accept dredged sediment starting in 2-3 years. Eden Landing in Alameda County is currently in the environmental review stage and may be available to receive dredged sediment starting in 2-3 years, but is not currently included in this authorization. These four sites have the capacity to receive over 20 million cubic yards of dredged sediment.

The Federal Standard for Redwood City Harbor, which is expected to be dredged again in 2019 and every two years thereafter, is placement of the dredged sediment at an In-Bay disposal site near Alcatraz Island. To place the sediment at a beneficial use site, the Corps requires a non-federal sponsor to pay the incremental cost above the cost for In-Bay disposal (for example, additional transit costs and offloading costs). To act as the non-federal sponsor, the Conservancy will need to enter into the MOA with the Corps, which will provide for the Conservancy to pay the entire cost of beneficial placement, including costs that exceed the Corps' estimated amount due to cost overruns, claims, or other unforeseen circumstances. (Cost-sharing the incremental cost is not an option in this case due to the procedural requirements for cost-sharing.)

At this time, the Corps does not have reliable estimates of the incremental cost of beneficial placement at Cullinan Ranch, Montezuma and/or Bel Marin Keys. However, the Corps staff have indicated that, after entering into the MOA, they will strive to ensure that the actual incremental cost does not exceed the Conservancy's authorized amount of \$5,700,000, even if the result is that only part of the Redwood City Harbor dredged sediment is beneficially used while the rest is placed at the In-Bay disposal site near Alcatraz.

The Conservancy is seeking ways to partner with the Corps to support a greater volume of dredged sediment in San Francisco Bay being beneficially used for wetland restoration, instead of being placed at DODS or at In-Bay disposal sites. Providing the Corps with the funding to beneficially use the dredged sediment from the Redwood City Harbor during upcoming dredging events will accomplish multiple objectives. First, it will ensure that sediment dredged from Redwood City Harbor is beneficially used for wetland restoration, instead of being disposed of at the Alcatraz disposal site. Dredged sediment placed at Alcatraz disperses over time and is washed out to sea. Second, it will function as a pilot project in that it will provide an opportunity to learn whether the Corps is able to effectively apply non-federal funds to dredging contracts and enter into contracts with contractors that affordably allow for beneficial use. This knowledge will be applied to future efforts to apply non-federal funds, including Conservancy and San Francisco Bay Restoration Authority funds, towards beneficial use. The Conservancy has applied to the Corps for San Francisco Bay to be considered as a Beneficial Use Pilot Program under Section 1122 of the Water Infrastructure Improvements for the Nation Act of 2016, Pub. Law 114-322. If selected, the information gained from the Redwood City Harbor effort will allow the Conservancy and the Corps to move expeditiously in implementation of a regional program.

Site Description: Redwood City Harbor is approximately 18 nautical miles south of San Francisco on the western side of South San Francisco Bay. It provides deep-draft access to the Port of Redwood City within the confines of Redwood Creek. Redwood City Harbor was last deepened in 1962 to -30 feet Mean Lower Low Water. The Entrance Channel, Outer Turning Basin, Connecting Channel, and Inner Turning Basin are typically dredged by the Corps every 1 to 2 years using clamshell-bucket equipment. Dredged sediment from Redwood City Harbor has typically been less than 80 percent sand and has predominantly been placed at Alcatraz disposal site (SF-11), though beneficial use at wetland restoration sites has taken place three times since 2008 (adjacent Inner Bair Island in 2008/9, Hamilton in 2009, and Montezuma in 2015).

The 1,575-acre Cullinan Ranch is owned by the US Fish and Wildlife Service (USFWS) as part of the San Pablo Bay National Wildlife Refuge, in Solano County in northern San Francisco Bay. The USFWS is restoring this subsided site to historic tidal marsh conditions, increasing tidal marsh habitat for threatened and endangered species, as well as stabilizing the shoreline behind a weak levee system. Approximately 300 acres of the site is specifically targeted for salt marsh harvest mouse (federally and state listed as endangered) and requires the placement of 2.8 million cubic yards of dredged sediment to reach appropriate elevations for pickleweed establishment. Once sediment has been received, salt marsh harvest mouse habitat is anticipated to develop on this site within 2-5 years. Cullinan Ranch is fully permitted and operational, and though contractors are required to bring their own offloading equipment, it has been receiving dredged sediment from a limited number of dredging projects for the past four years. Three of the five local dredging companies have successfully used this site using their own equipment.

Montezuma is privately owned and operated by Montezuma LLC. This subsided wetland restoration site is located at the eastern edge of nationally-recognized Suisun Marsh. It is adjacent to Montezuma Slough near the town of Collinsville in Solano County. This site represents 12.6% of the Suisun Marsh and the entire region is low in the tidal frame with non-engineered levees providing limited protection from inundation and salt water intrusion into the Western Delta, which threatens much of the State's fresh water infrastructure. In addition to restoring tidal wetlands for endangered species habitat, including least tern, salt marsh harvest mouse, Ridgway's Rail, Delta smelt, and salmon, this site will support productive vegetation that will build organic sediment, allowing for marsh transgression over time into the adjacent upland habitat. Montezuma's design includes construction of an internal levee system with specific deep cells that can accept sediment with slightly elevated levels of contamination, making it unique among Bay Area restoration projects. At Montezuma, 17 mcy of dredged sediment are necessary to restore approximately 1,880 acres of tidal and seasonal wetlands. Approximately 6.5 mcy of dredged sediment has been placed to date as part of Phase 1 of the project. The site has deep-water access for all classes of dredge scows, a docking area, and its own high capacity offloader, The Libert, that is used by all contractors. This project is fully permitted and operational.

Bel Marin Keys is an expansion of the Hamilton Wetland Restoration Project. The roughly 960-acre Hamilton site owned by the Conservancy, is located in the City of Novato, Marin County, on the western shore of San Pablo Bay. Restoration of the former airfield, using sediment primarily from the Port of Oakland 50-foot Deepening Project, was completed by the Corps in 2014 when the site was breached to the Bay. The adjacent Bel Marin Keys project (also owned by the Conservancy), authorized by the Water Resources Development Act of 2007, as an

aquatic ecosystem restoration project, would expand Hamilton by 1,576 acres, creating nearly 2,600 acres of contiguous restored wetlands. Bel Marin Keys was converted from salt marsh habitat to agricultural use over the past 150 years, and thus is heavily subsided. Restoration of Bel Marin Keys would develop habitat for federal endangered species, including the Ridgway's Rail and the salt marsh harvest mouse. Under the current design, this site would accept 9.5 mcy of dredged sediment to construct tidal wetlands. This site is currently in the permitting phase. Construction of the levee is planned for 2019 and 2020, and the site would be ready to start receiving dredged sediment in 2020.

Phase II of the Eden Landing project would restore and enhance approximately 2,300-acres of former salt ponds to a mix of wetland habitats while simultaneously providing coastal flood risk management and wildlife oriented public access and recreation in the southern portion of San Francisco Bay. Located adjacent to Hayward and Union City, the site is owned and operated by the California Department of Fish and Wildlife. This project is a significant portion of the multi-agency South Bay Salt Pond Restoration Project, a Federal, State, and local effort to restore 15,000 acres of former industrial salt production ponds to a mix of wetland habitat. This project is currently under environmental review (under the California Environmental Quality Act and National Environmental Protection Act). The Draft EIR/EIS released to the public in April of 2018; public comments have been received and the project team is drafting responses and finalizing the document. This site has the capacity for 7.2 mcy of dredged sediment and is the closest to Redwood City Harbor, approximately five miles directly across the Bay. This site is estimated to be permitted and operational in 2022. Prior to Conservancy funds being used by the Corps to place dredged sediment at the Eden Landing site, the Conservancy would need to make findings under CEQA.

Project History: Prior to the Gold Rush, approximately 200,000 acres of tidal marsh surrounded San Francisco Bay, San Pablo Bay, and Suisun Bay. Approximately 85% of these wetlands were diked and converted to other uses, including salt ponds, agricultural lands, ports and airports, and housing. The San Francisco Baylands Ecosystem Habitat Goals Report (1999) called for a total of 100,000 acres of tidal marsh, including the remaining historic marshes, previously restored marshes, and diked baylands that could be restored to tidal marsh. Significant progress has been made since 1999 on the acquisition, planning, and restoration of previously diked baylands to tidal marsh, with 12,000 acres restored and 30,000 acres underway. The Baylands Ecosystem Habitat Goals Science Update (2014) included recommendations for conducting future wetland restoration and maintaining existing and restored tidal marsh habitat, given sea level rise. Recommendations include accelerating the pace and scale of restoration actions and improving sediment management in San Francisco Bay. As stated in the report, the restoration community should “[d]evelop and implement a comprehensive regional plan to reuse suitable dredged, excavated, or naturally occurring sediment”.

Many of the restorable diked baylands have subsided and need sediment to raise their elevations or to create transition zones prior to tidal restoration. Without the import of sediment, there are restoration sites that would never naturally evolve to a vegetated tidal marsh, particularly given sea level rise and reduced suspended sediment concentrations that have occurred in some areas. The Conservancy partnered with the Corps on the restoration of Sonoma Baylands and Hamilton Wetlands, both of which used dredged sediment from the Port of Oakland and other ports and

marinas, in order to raise elevations prior to breaching the bayside dikes. Both of these restoration projects have been successful. Sonoma Baylands has significant marsh vegetation and biologists have documented Ridgway's Rails, a federally-endangered species, using the site. Hamilton was breached in 2014, and according to a recent monitoring report prepared for the Corps by consultants, "the site is quickly evolving towards a vibrant tidal wetland that supports a variety of native flora and fauna."

PROJECT FINANCING

Coastal Conservancy	\$5,700,000
Project Total	\$5,700,000

The anticipated source of Conservancy funds for this project is a Fiscal Year 2018/19 appropriation of \$6 million in General Funds specifically for beneficial reuse of dredged sediment from Redwood City Harbor as a pilot program. These funds must be encumbered by June 30, 2020, and expended by June 30, 2023. Of the total General Funds appropriated for this project, \$300,000 will be used for Conservancy staff costs. Staff have informed the Corps that the maximum amount available for this project is \$5,700,000 and the Corps staff have acknowledged this amount.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project will be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31165, to address resource goals in the San Francisco Bay Area.

Redwood City Harbor and the beneficial use placement sites are within the nine-county Bay Area as required under Section 31162 of the Public Resources Code.

Under Section 31162(b), the Conservancy may act to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional significance. The proposed project will help restore natural wetland habitats along the Bay through the placement of dredged sediment at wetland restoration sites in order to raise elevations prior to tidal restoration.

The project is consistent with Sections 31163(a) and (b), directing the Conservancy to participate in and support interagency actions and public/private partnerships in the San Francisco Bay Area to implement long-term resource and outdoor recreational goals.

Consistent with Section 31163(c), the project meets the following criteria: it (1) is supported by adopted regional plans: *Baylands Ecosystem Habitat Goals Report* (1999), *Baylands Goals Update* (2015), *the Long Term Management Strategy for the Placement of Dredged Material in the Bay Region* (2010), the *San Francisco Bay Plan, as Amended* (March 2012) and the McAteer-Petris Act (1965), and the *San Francisco Basin (Region 2) Water Quality Control Plan* (June 29, 2013), (2) is multijurisdictional (involves multiple agencies) and serves a regional constituency (the restoration component will facilitate nationally and regionally significant wetland restoration efforts), (3) can be implemented in a timely way, (4) provides opportunities

for habitat benefits that could be lost if the project is not quickly implemented, and (5) includes matching funds for the dredging, as described above in the “Project Financing” section.

**CONSISTENCY WITH CONSERVANCY’S 2018-2022 STRATEGIC PLAN
GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 12, Objective D** of the Conservancy’s 2018-2022 Strategic Plan, the proposed project will enhance tidal wetlands.

**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 October 2, 2014, 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.
3. **Promotion and implementation of state plans and policies:** The placement of dredged sediment at beneficial use restoration sites will promote and implement several state plans including:

CA Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan (July 2014). The plan identifies Actions Needed To Safeguard Biodiversity And Habitats including #2: Implement adaptive management studies to refine approaches for conserving biodiversity, especially for species and communities vulnerable to climate change such as coastal wetlands.

California Water Action Plan (2014). The project helps achieve Goal #4, Protect and Restore Important Ecosystems as it is one of the 10 “large-scale habitat projects along the California coast in strategic coastal estuaries to restore ecological health and natural system connectivity, which will ... help defend against sea level rise”.

California @ 50 Million: The Environmental Goals and Policy Report (2013 Draft). Key Action #3 of the “Preserve and Steward State Lands and Natural Resources” calls for building resilience in natural systems and specifically points out that wetlands “provide important carbon sequestration opportunities for the state.”

CA Wildlife Action Plan (2005). The project will further the following statewide recommended action: g) Public agencies and private organizations need to collaboratively protect and restore lowland linkages in San Francisco Bay.

4. **Support of the public:** The project is supported by the regulatory agencies engaged in the Long-Term Management Strategy for the Placement of Dredged Material in Bay Region (LTMS).
5. **Location:** The Redwood City Harbor and the beneficial use placement sites are located in the nine-county San Francisco Bay Area.
6. **Need:** Without Conservancy funding, the Corps will place dredged sediment from the Redwood City Harbor at the least costly dredged sediment disposal or placement alternative that is consistent with sound engineering practices and meets all federal environmental requirements. This will likely be the in-bay disposal site near Alcatraz.
7. **Greater-than-local interest:** Restoration of tidal wetlands in San Francisco Bay and beneficial use of dredged sediment for restoration purposes are of regional, state, and national interest.
8. **Sea level rise vulnerability:** Beneficial use of dredged sediment will assist in addressing sea level rise vulnerability in San Francisco Bay, by raising elevations of subsided restoration sites prior to tidal restoration. This will allow for the restored wetlands to reach marsh plain elevation earlier than if the sites solely relied on natural processes. Once the marsh plain of a restored wetland is colonized by vegetation, marshes become efficient sediment traps and reduce wave energy. Vegetated marshes will have a better chance of keeping up with sea level rise than sites that start out deeply subsided.

Additional Criteria

9. **Urgency:** There is an urgent need to restore tidal wetlands in San Francisco Bay prior to 2030 and improve sediment management in the Bay, in order for wetlands to keep pace with sea level rise and continue to provide multiple benefits for wildlife and people.
10. **Resolution of more than one issue:** The project addresses both tidal wetlands restoration goals as well as goals for beneficial use of dredged sediment in San Francisco Bay.
11. **Leverage:** See the “Project Financing” section above.
12. **Conflict resolution:** Beneficial use of dredged sediment has been conducted many times in San Francisco Bay, notably at Hamilton, Sonoma Baylands, Montezuma, Cullinan Ranch, and Bair Island. However, the consistent use of O&M dredged sediment at restoration sites has proven challenging, due to the Federal Standard. This project will provide a test for using non-federal funds to allow the Corps to pay the incremental cost of placing dredged sediment from the Redwood City Harbor O&M dredging events at beneficial use restoration sites in San Francisco Bay.
13. **Readiness:** The Corps dredges Redwood City Harbor every two years and is ready to execute a Memorandum of Agreement with the Conservancy so that non-federal funds can be used to pay the incremental cost of beneficial use of the dredged sediment – any costs above the Federal Standard.
14. **Realization of prior Conservancy goals:** “See “Project History” above.”

15. **Cooperation:** The project is a cooperative effort between the Conservancy, the Corps, the regulatory agencies engaged in the LTMS, and the site owners of the beneficial use restoration sites,

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The project is consistent with the following policies of San Francisco Bay Conservation and Development Commission's (BCDC) San Francisco Bay Plan (Reprinted March 2012):

Part III: The Bay as a Resource

Fish, Other Aquatic Organisms and Wildlife

- To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased.

Water Quality

- The Bay's tidal marshes, tidal flats, and water surface area and volume should be conserved and, whenever possible, restored and increased to protect and improve water quality.

Tidal Marshes and Mudflats

- Where a transition zone does not exist and it is feasible and ecologically appropriate, shoreline projects should be designed to provide a transition zone between tidal and upland habitats.
- Where feasible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions, such as resting, foraging and breeding habitat for fish, other aquatic organisms and wildlife.

Part IV: Development of the Bay and Shoreline

Dredging

- Dredging and dredged material disposal should be conducted in an environmentally and economically sound manner. Dredgers should reduce disposal in the Bay and certain waterways over time to achieve the LTMS goal of limiting in-Bay disposal volumes to a maximum of one million cubic yards per year. The LTMS agencies should implement a system of disposal allotments to individual dredgers to achieve this goal only if voluntary efforts are not effective in reaching the LTMS goal. In making its decision regarding disposal allocations, the Commission should confer with the LTMS agencies and consider the need for the dredging and the dredging projects, environmental impacts, regional economic impacts, efforts by the dredging community to implement and fund alternatives to in-Bay disposal, and other relevant factors.
- To ensure adequate capacity for necessary Bay dredging projects and to protect Bay natural resources, acceptable non-tidal disposal sites should be secured and the Deep Ocean Disposal Site should be maintained. Further, dredging projects should maximize use of dredged

material as a resource consistent with protecting and enhancing Bay natural resources, such as creating, enhancing, or restoring tidal and managed wetlands, creating and maintaining levees and dikes, providing cover and sealing material for sanitary landfills, and filling at approved construction sites.

- Interested agencies and parties are encouraged to explore and find funding solutions for the additional costs incurred by transporting dredged materials to nontidal and ocean disposal sites, either by general funds contributed by ports and other relevant parties, dredging applicants or otherwise.

CEQA COMPLIANCE:

The placement of dredged sediment from Redwood City Harbor on restoration sites at Cullinan Ranch and Montezuma is addressed in the *Final Environmental Assessment/Environmental Impact Report, Maintenance Dredging of the Federal Navigation Channels in San Francisco Bay, Fiscal Years 2015-2024* (Dredging EIR/EIS), which was certified, pursuant to the California Environmental Quality Act (CEQA), by the San Francisco Bay Regional Water Quality Control Board on May 13, 2015, which adopted a Mitigation Monitoring and Reporting Plan on the same day.

The Dredging EIR/EIS identifies potentially significant effects of beneficial placement at Cullinan Ranch and Montezuma in the areas of Cultural Resources and Paleontological Resources. The potential effects and the mitigation measures that will reduce these potential effects to less than significant are summarized below.

Impact 3.7-1: Substantial Adverse Change to a Historical Resource or Disturb Unique Archaeological Resources. Although unlikely given the repeated dredging and dredged material placement activities that have historically occurred at the federal navigation channels and existing placement sites, there is a potential that archaeological materials could be inadvertently uncovered by project activities. Such inadvertently discovered archaeological materials could represent historical resources or unique archaeological resources, and their disturbance could adversely change their condition. As such, the inadvertent discovery of archaeological materials would be a potential project impact. This impact will be mitigated by implementation of Mitigation Measure CUL-1, Inadvertent Archaeological Discovery Measures, which identifies the steps the Corps must take if it inadvertently discovers archaeological resources, such as fragments of bone, stone tools, structural remains, ship remnants, or historic refuse during any soil-disturbing activity of the project. The steps the Corps must take include immediately suspending any soils-disturbing activities in the vicinity of the discovery and consulting a qualified archaeologist. The mitigation measure identifies additional actions depending on the findings and recommendations of the archaeologist.

Impact 3.7-2: Disturb Human Remains, including those Interred Outside of Formal Cemeteries

There are no known cemeteries, formal or otherwise, or other evidence of human interment in the federal navigation channels or existing placement sites. Although unlikely, given the repeated dredging and dredged material placement activities that have historically occurred at the federal navigation channels and existing placement sites, there is a potential that previously unidentified human remains could be inadvertently uncovered with project implementation. Such disturbance

of human remains represents a potential project impact. This potential impact will be mitigated by Mitigation Measure CUL-1, Inadvertent Archaeological Discovery Measures, as described above, and Mitigation Measure CUL-2, Treatment of Human Remains. The latter requires the Corps to comply with state laws if it discovers human remains and associated or unassociated funerary objects. This includes the requirement that if human skeletal remains are discovered, construction activities must immediately cease and the Corps' project representative must contact the local coroner (county in which discovery is made) to evaluate the remains, and follow the procedures and protocols set forth in 14 Cal. Code Regs. Section 15064.5 (e)(1). If the coroner determines that the remains are Native American, the Corps must contact the Native American Heritage Commission for appointment of a Most Likely Descendant (MLD), and follow other statutory procedures, identified in the mitigation measure, for protection of such resources.

Impact 3.7-3: Disturb Unidentified Significant Paleontological Resources

Disturbance of paleontological resources is not expected, however, there is a potential that paleontological materials could be inadvertently uncovered by project activities. Such disturbance of paleontological resources represents a potential project impact. This impact will be mitigated by implementation of Mitigation Measure CUL-3, Inadvertent Paleontological Discovery, which identifies the steps the Corps must take if paleontological resources are discovered during sediment-disturbing activities. The steps include halting work and consulting a qualified paleontologist (in accordance with SVP standards). The mitigation measure identifies additional actions depending on the findings and recommendations of the paleontologist

Conservancy staff recommend that the Conservancy find that although the placement of dredged material at Montezuma and Cullinan Ranch could have potentially significant effects, the mitigation measures described in the Dredging EIR/EIS will lessen these significant effects to less than significant.

On April 22, 1999, as lead agency under CEQA, the Conservancy certified the *Hamilton Wetlands Restoration Plan Volume 2 Environmental Impact Report/Environmental Impact Study*. On June 16, 2005, the Conservancy certified the *Final Supplemental Environmental Impact Report/Environmental Impact Study for the Bel Marin Keys Expansion of the Hamilton Wetland Restoration Project* (BMK SEIR/EIS), which addresses the expansion of the Hamilton Wetlands Restoration Project to include restoration of the adjacent Bel Marin Keys property. The BMK SEIR/EIS describes the restoration to include placement of dredged sediment and addresses the impacts of such placement. The Conservancy approved the Bel Marin Keys expansion of the Hamilton Wetlands Restoration Project, and adopted findings under CEQA, on June 16, 2005 (Exhibit 3). The proposed placement of dredged sediment from Redwood City Harbor at Bel Marin Keys is consistent with, and will occur in accordance with, the BMK SEIR/EIS. There have not been changes in the dredging component of the Bel Marin Keys expansion or the circumstances under which the dredged placement would occur, and no new information, that would trigger the need for additional CEQA documentation under 14 Cal. Code Regs. Section 15162. Accordingly, the placement of dredged sediment at Bel Marin Keys remains consistent with the findings adopted by the Conservancy on June 16, 2005.

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