

SAN FRANCISCO BAY RESTORATION AUTHORITY

Staff Recommendation  
May 8, 2020

**SAN PABLO BAYLANDS COLLABORATIVE PROTECTION AND RESTORATION  
(CPR) PROJECT: PHASE 1**

Project No. RA-015  
Project Manager: Jessica Davenport

**RECOMMENDED ACTION:** Authorization to disburse up to \$2,950,000 to Ducks Unlimited to implement the San Pablo Baylands Collaborative Protection and Restoration Project, Phase 1, in Solano, Napa and Sonoma Counties, consisting of restoration of tidal marsh with beneficial reuse of dredged material at Cullinan Ranch; enhancement of seasonal wetland habitat through levee repair at Haire Ranch; and control of weeds and conservation education within the San Pablo Bay National Wildlife Refuge; and adoption of findings under the California Environmental Quality Act.

**LOCATION:** San Pablo Bay National Wildlife Refuge, Solano, Napa and Sonoma Counties;  
Measure AA Region: North Bay

**MEASURE AA PROGRAM CATEGORIES:** Safe, Clean Water and Pollution Prevention Program; Vital Fish, Bird and Wildlife Habitat Program.

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**EXHIBITS**

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Project Designs and Photographs](#)

Exhibit 3: [Cullinan Ranch Restoration Project Draft Environmental Impact Statement/Environmental Impact Report \(EIS/EIR\), April 2008](#)

Exhibit 4: [Cullinan Ranch Restoration Project Final EIS/EIR, April 2010](#)

Exhibit 5: [Cullinan Ranch Restoration Project Final EIS/EIR Addendum for Offloading Facility, May 2012](#)

Exhibit 6: [Project Letters](#)

**RESOLUTION AND FINDINGS:**

Staff recommends that the San Francisco Bay Restoration Authority adopt the following resolution pursuant to The San Francisco Bay Restoration Authority Act, Gov. Code Sections 66700-66706:

“The San Francisco Bay Restoration Authority hereby authorizes the disbursement of an amount not to exceed two million nine hundred fifty thousand dollars (\$2,950,000) to Ducks Unlimited to restore tidal marsh with beneficial reuse of dredged material at the Cullinan Ranch site; enhance seasonal wetland habitat through levee repair at the Haire Ranch site; and control weeds and conduct conservation education within the San Pablo Bay National Wildlife Refuge. Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Authority the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be employed in carrying out the project.
3. A plan for acknowledgement of Authority funding.
4. Evidence that all permits and approvals required to implement the project have been obtained.
5. Evidence that the grantee has entered into agreements sufficient to enable the grantee to implement, operate, and maintain the project.
6. Evidence that the grantee has entered into a project labor agreement consistent with San Francisco Bay Restoration Authority Resolution 22.”

Staff further recommends that the Authority adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the San Francisco Bay Restoration Authority hereby finds that:

1. The proposed authorization is consistent with The San Francisco Bay Restoration Authority Act, Gov. Code Sections 66700-66706.
2. The proposed authorization is consistent with The San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Measure (Measure AA).
3. For the Cullinan Ranch element of the project, the San Francisco Bay Restoration Authority has independently reviewed and considered the information contained in: (1) the *Cullinan Ranch Restoration Project Final Environmental Impact Statement/Environment Impact Report* (Final EIS/EIR), which was certified by the California Department of Fish and Wildlife on April 22, 2010 pursuant to the California Environmental Quality Act (“CEQA”), and is attached to the accompanying staff recommendation as Exhibits 3 and 4; and (2) the *Cullinan Ranch Restoration Project Final EIS/EIR Addendum for Offloading Facility* (Addendum) adopted by the California State Lands Commission on May 24, 2012 and attached to the accompanying staff recommendation as Exhibit 5. The Final EIR/EIS and Addendum identified potential significant effects of the Cullinan Ranch Restoration Project in the areas of Biological Resources; Cultural Resources; Air; Noise; Transportation; and Land Use Recreation and Public Health. The Authority finds that the mitigation measures identified in the Final EIS/EIR and Addendum will avoid, reduce or mitigate the potential significant effects of the Cullinan Ranch Restoration Project except for six effects described below.
4. Statement of Overriding Considerations for Cullinan Ranch Restoration Project. The six effects of the Cullinan Ranch Restoration Project that are significant and unavoidable are:

(a) placement of permanent fill in jurisdictional wetlands and waters of the U.S., (b) permanent loss of burrowing mammal habitat and potential mortality of individual mammals, (c) loss of foraging habitat for some raptor species, (d) loss of habitat for some species of wintering waterfowl, (e) loss of potential foraging habitat for special status bat species, and (f) conversion of seasonal wetland habitat to tidal marsh habitat. The Authority finds that the specific environmental and other benefits of Cullinan Ranch Restoration Project described in the accompanying staff recommendation and detailed in the Final EIS/EIR outweigh and render acceptable these unavoidable adverse environmental effects. These benefits include that the Cullinan Ranch Restoration Project will restore native habitat for threatened and endangered salt marsh species as well as other plant and animal species that otherwise would be threatened by loss of critical habitat, and the project will reestablish wildlife corridors and connectivity of habitats at the landscape scale.”

#### PROJECT SUMMARY:

Staff recommends that the San Francisco Bay Restoration Authority authorize the disbursement of up to \$2,950,000 to Ducks Unlimited to implement the San Pablo Baylands Collaborative Protection and Restoration (CPR) Project, Phase 1 (project), which will restore and enhance important wetland habitats on the San Pablo Bay National Wildlife Refuge (Refuge) (See Exhibit 1). The Refuge is owned and managed by the U.S. Fish and Wildlife Service (USFWS). The project has long been a top priority of many local and regional habitat restoration plans. The Refuge is within the larger landscape known as the San Pablo Baylands, which includes more than 40,000 acres of current and historic tidal wetlands, non-tidal perennial and seasonal wetlands, riparian corridors, and uplands. The project advances the landscape-scale restoration vision of the *Baylands Ecosystem Habitat Goals Science Update 2015* (2015 Science Update) – to create an unbroken band of restored marshes from the Petaluma River to Vallejo.

Reclamation and conversion have led to the loss of approximately 82% of historic wetlands in the San Pablo Baylands, which despite this loss remain among the most important waterfowl and shorebird staging and wintering habitat complexes in the Pacific Flyway. The area supports over 30 species of waterfowl, and approximately 50% of the Pacific Flyway diving duck population; peak waterfowl populations approach 280,000 ducks. The area also supports nearly 600,000 shorebirds during peak migration periods. Reclaimed lands have subsided three to seven feet relative to marsh elevation depending on land use history. Nevertheless, forthcoming studies indicate that the project is in a prime location for restoration, based on the area’s high resilience to sea level rise due to its high sediment supply, both now and into the future (*Healthy Watersheds, Resilient Baylands Report*, San Francisco Estuary Institute, in preparation).

Major restoration along the Napa River corridor began with the restoration of over 8,700 acres of former salt production ponds and the salt production facility known as the Napa Plant Site, in what is now the Napa-Sonoma Marshes State Wildlife Area, owned and managed by the California Department of Fish and Wildlife. This was followed by the restoration of 1,249 acres at the western portion of Cullinan Ranch (Cullinan West) on the Refuge.

The project will expand this effort by restoring 290 acres of wetlands near the lower Napa River at the eastern portion of Cullinan Ranch (Cullinan East) through placement of dredged sediment to accelerate restoration and improve resilience for sea level rise. It will also include work in the Sonoma Creek Baylands, where it will repair a levee, enabling enhancement of approximately

740 acres of seasonal wetland at Haire Ranch, the northeastern portion of Skaggs Island, another Refuge property. Finally, it will remove invasive plant species throughout the Refuge and provide conservation education. Each of these four project components are described in detail below.

- 1. Habitat Restoration at Cullinan Ranch.** This component of the project consists of placing dredged sediment and grading the 290-acre Cullinan East site to create elevations appropriate for marsh and upland habitat restoration, and restoring the site to tidal action. Project elements include the cost offset for bringing dredged sediment to the site,<sup>1</sup> lowering existing levees, excavating levee breaches at strategic locations to restore hydrology and historic channel networks, and creating broad upland transition zones and islands to benefit tidal marsh species. The project will fund import of approximately 200,000-400,000 cubic yards of dredged sediment above and beyond quantities already slated for beneficial reuse, prioritized based on value, proximity, and quantity. It is anticipated that dredged material from the Petaluma River will be available for placement at the site. Several project elements have already been completed, including construction of upland refugia habitat, construction of the setback levee and Pole Barn levee to allow dredge sediment placement, and professional services. By placing dredged sediment on the site and raising the elevation of the site prior to breaching, the project will accelerate the restoration timeline by enabling marsh vegetation to colonize sooner and increase resilience to sea level rise (Exhibit 2, Figure 1). The project will benefit federally listed species such as the salt marsh harvest mouse and Ridgway's rail (formerly California clapper rail).
- 2. Habitat Enhancement on Haire Ranch.** This component of the project consists of levee repair through construction of a cutoff wall that will improve the functioning of a managed seasonal wetlands unit at Haire Ranch (Exhibit 2, Figure 2). A managed seasonal wetlands restoration project was constructed at Haire Ranch in 2018, but the deepwater unit (reservoir) can no longer be used as intended because seepage under its surrounding levee threatens to flood adjacent farm buildings. The levee will be repaired by construction of a concrete cutoff wall within the levee to prevent water seepage. This is necessary to allow the deepwater unit to be filled with water, thereby enabling the unit to be managed as designed with the ability to flush water out into the seasonal wetland unit and swales to halt or slow mosquito production, and the ability to hold water longer into the spring and summer to benefit waterbirds, depending on the water year. Holding

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<sup>1</sup> The "cost offset" refers to the incremental cost, above the Federal Standard, to deliver dredged material to a restoration site. As noted in the Measure AA Grant Program Guidelines, much of the dredging in the Bay Area is conducted by the U.S. Army Corps of Engineers, with other dredging conducted by ports, local agencies, or private entities, such as refineries. The Corps must dispose of the sediment in the least cost, environmentally acceptable manner (the Federal Standard). The Federal Standard is often the Deep Ocean Disposal Site or In-Bay Disposal sites. The Authority's grant funding is not intended to go towards the cost of dredging navigation channels, ports, or marinas. However, the Authority's grant funding may support the incremental cost, above the Federal Standard, to deliver dredged material to a restoration site, and the placement, management, and sculpting of material on-site.

water in the deepwater unit for a longer period has the added benefit of saturated soils halting decomposition of organic matter and thus reducing the rate of subsidence. Levee repair through construction of a cutoff wall will enhance approximately 740 acres of seasonal wetland habitat, a highly beneficial interim habitat type that has been selected to slow or reverse subsidence and benefit waterbirds.

3. **Targeted Weed Control on the Refuge.** This project component consists of performing invasive species control on previously prioritized weed patches to attain control and reduce the need for more extensive efforts in the future. Weeds have been prioritized based on protecting threatened and endangered species habitat and keeping invasive weeds out of recently restored sites.
4. **Conservation Education.** This project component consists of bringing students from Mare Island Technology (MIT) Academy in Vallejo to explore the Refuge and participate in environmental education activities focused on tidal wetland habitats. Planned activities include environmental interpretation (nature journaling and multi-media art), field learning about biology, water quality data collection, and recreation (kayaking, fishing, and biking). MIT Academy students are predominantly low-income students of color (Hispanic, Filipino, African American, Asian and Pacific Islanders).

The project's Measure AA application included a range of additional elements: demolition of existing structures on the Refuge's Haire Ranch and Detjen properties, construction of new shade structures and seating for visitors to the Refuge's headquarters, and a property acquisition led by the Sonoma Land Trust and prioritized in the Authority-funded Sonoma Creek Baylands Strategy. Staff considers acquisitions in this area to be a high priority and might recommend a grant for the property acquisition in the near future, when details become available, as Phase 2 of this project. However, staff recommends consideration of the other project elements (i.e., demolition of existing structures on the Haire and Detjen properties and construction of new shade structures and seating) be postponed to a future year because they are not as urgently needed. Postponing the additional project elements will not prevent the four recommended elements listed above from moving forward.

Ducks Unlimited (DU), the lead organization for this project, will implement the project in partnership with the Refuge, Sonoma Land Trust, and Friends of San Pablo Bay National Wildlife Refuge (Friends). The Refuge and DU have been working collaboratively in the region for over a decade, including the large-scale restoration of Sears Point, planning for restoration of Skaggs Island, and the development of the Sonoma Creek Baylands Strategy. Friends will work with Vallejo's MIT Academy, the Refuge, and DU to bring students to the Refuge for field learning and recreation.

DU is a 501(c)(3) non-profit organization and the largest wetlands conservation organization in the country. DU's mission is to conserve, restore, and manage wetlands and associated habitats for North America's waterfowl, other wildlife, and people, and has been conserving coastal wetlands in San Francisco Bay for over 20 years. DU's project team of biologists, engineers, and support staff has extensive expertise in tidal restoration design and implementation and is the prime implementing entity for nearly all tidal wetland restoration projects to date in the Bay. DU is an integral partner in the restoration of the San Pablo Baylands, including Napa-Sonoma Marshes Ponds 1-5 (DU oversaw construction) and Ponds 6-8 (technical advice), the former Napa Plant Site (DU oversaw construction), Cullinan West and East (planning, design,

implementation), Sears Point (planning, design, implementation), the initial Haire Ranch project (planning, design, implementation), and Skaggs Island (planning).

The project has a very high level of regional support and over a decade of momentum and positive results. It will provide many tangible benefits, including hunting, fishing, wildlife viewing, boating, and kayaking opportunities, as well as the conservation education project element described above. Although the project will not create any new public access, the area contains existing San Francisco Bay Trail, spur trails, and an existing observation platform, visitors' kiosks, interpretive signs, and multiple water access points including a state-of-the-art, universally accessible kayak launch facility, which is a designated Water Trail site, at Cullinan Ranch. Additional public access will be planned and implemented as part of future restoration implementation phases in the planning area of the Sonoma Creek Baylands Strategy.

The risk that infrastructure surrounding the San Pablo Baylands will be flooded due to sea level rise and/or the failure of unengineered earthen berms protecting deeply subsided sites prior to restoration is the greatest impetus to act quickly to restore this region to self-sustaining tidal wetlands. DU has significant experience dealing with these challenges in and around the project area. For example, in implementing earlier phases of the Cullinan Ranch Restoration Project, DU had to protect infrastructure elements next to Cullinan Ranch, including meeting a zero-settlement criterion along Highway 37, protecting the rail line and building a rail crossing, building both acceleration and deceleration lanes along Highway 37, armoring Pacific Gas & Electric towers, and facilitating placement of dredged material at Cullinan East. The project team understands that immediate action is needed while tidal restoration is safe and feasible, to keep pace with or get ahead of sea level rise. This is consistent with the 2015 Science Update, which prioritizes maximizing tidal marsh restoration by 2030.

#### **Site Description:**

The project is located within the Refuge, with specific activities taking place on the Cullinan Ranch and Haire Ranch properties.

**The Refuge.** In response to rapidly disappearing wetlands and its prime location within the Pacific Flyway, the San Pablo Bay National Wildlife Refuge was created in 1974 to protect migratory birds, wetland habitat, and endangered species. Lying along the north shore of San Pablo Bay in Sonoma, Solano, and Napa Counties, the Refuge supports the largest wintering population of canvasbacks on the west coast, and protects the endangered salt marsh harvest mouse and the Ridgway's rail. The Refuge includes open bay/tidal marsh, mud flats, and seasonal and managed wetland habitats. It provides critical migratory and wintering habitat for shorebirds and waterfowl, particularly diving ducks, and provides year-round habitat for endangered, threatened, and sensitive species like the Ridgway's rail, salt marsh harvest mouse, California black rail, San Pablo song sparrow, and Suisun shrew. Numerous other threatened, endangered, and sensitive species require tidal marsh habitat for their survival, including 11 fish species that swim through San Pablo Bay to reach their fresh water spawning grounds. The San Pablo Bay National Wildlife Refuge is managed as part of the San Francisco Bay National Wildlife Refuge Complex.

**Cullinan Ranch.** The U.S. Fish and Wildlife Service purchased the Cullinan Ranch property in 1991, with an intent to restore the area to tidal marsh for the benefit of federally listed species such as the salt marsh harvest mouse and Ridgway's rail. The project also reestablishes wildlife

corridors and connectivity of habitats at the landscape scale. In January 2015, three breaches were constructed in the northern perimeter levee thereby reconnecting over 1,200 acres of Cullinan Ranch to the surrounding tidal sloughs. This area (Cullinan West) is currently accreting sediment naturally through tidal action and providing open water habitat for a diversity of waterfowl and other waterbirds.

In order to accelerate the accretion rate and habitat development, project partners designated a 290-acre area (Cullinan East) for dredged material with plans to import up to 2.8 million cubic yards of material to the project site. The material is imported from dredging projects throughout San Francisco Bay, like Richmond Harbor. So far, over 1.1 million cubic yards of material have been imported to the site. Dredged sediment was initially delivered via barges which travelled up Dutchman Slough and moored adjacent to the project site; the material was hydraulically pumped over the perimeter levee and deposited in the dredged material containment area. To accommodate larger equipment, a Napa River offloading location was added, with a pipeline in Dutchman Slough. Within the next five years, the area will be restored to tidal action, and because of the dredged material, it will be at an elevation that is able to immediately support tidal marsh habitat.

**Haire Ranch.** Haire Ranch is part of Skaggs Island, which is situated midway along Highway 37 and in the ecological heart of the Sonoma Creek Baylands. Long targeted for conservation and restoration, a majority of Skaggs Island was transferred from the U.S. Navy to the USFWS as part of the Refuge in 2011. In 2013, the Natural Resource Conservation Service (NRCS) purchased a wetland easement on the property and Sonoma Land Trust acquired the underlying fee title. The property was then transferred to USFWS, thus achieving a critical first step toward restoration of the entire 4,400 acres.

Planning for tidal restoration of the deeply subsided Skaggs Island, in the heart of the Sonoma Creek Baylands, has been underway since 2013. In 2018, the Authority and USFWS co-funded the Sonoma Land Trust to lead the development of the *Sonoma Creek Baylands Strategy* (in preparation), a vision for habitat restoration, flood protection, public access and the redesign of Highway 37 and the rail line, in light of current elevations and projected sea level rise, among other factors. Concurrently with these planning processes, interim restoration of Haire Ranch, described below, was also undertaken.

DU partnered with NRCS and USFWS to plan, design, and implement the Haire Ranch Wetland Project with the goal of providing seasonal wetland habitat that will also accommodate longer term future tidal restoration. By December 2018, the water control structures, pump station, and tule transplants were in place and in January 2019, earthwork was complete. The conversion of approximately 782 acres of actively farmed agricultural fields to open water and seasonal managed wetlands was performed through grading, earthen berm construction, and by reconfiguring water control capability within Skaggs Island. Of the 782 acres on Haire Ranch, deep water comprises approximately 72 acres while 671 acres are seasonal wetlands interspersed with deeper wetland swales and potholes. Unfortunately, a problem with water operations on the site emerged in 2019. Winter flooding due to levee seepage threatened to flood the farm buildings, necessitating construction of the cutoff wall, described above.

## **PROJECT FINANCING**

<b>San Francisco Bay Restoration Authority</b>	<b>\$2,950,000</b>
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Others	\$5,132,194
<b>Project Total</b>	<b>\$8,082,194</b>

In addition to the Authority funding, the grantee has obtained funding from several other sources. Other funds for Cullinan East include grants from the California Wildlife Conservation Board (WCB), National Coastal Wetlands Conservation Grant Program (NCWC), Castro Cove Trustee Council (Trustee Council), National Oceanic and Atmospheric Administration (NOAA), and U.S. Environmental Protection Agency (EPA). For Targeted Weed Control on the Refuge, the grantee has obtained funds from the National Fish and Wildlife Foundation (NFWF). A portion of the funds for both of these project elements has already been expended. Cargill will contribute \$120,000 towards the conservation education component of the project.

The USFWS will continue to operate and manage the restored and enhanced properties as part of the Refuge and has operations and maintenance staff and an annual budget for routine needs. If greater operations and maintenance needs arise, the Refuge would work within USFWS and with DU to identify additional sources of funding and to develop and implement solutions. Ongoing monitoring and studies will help track the progress of restoring Cullinan East to tidal marsh and enhancing Haire Ranch's seasonal wetlands. USFWS and DU are conducting the monitoring at Cullinan Ranch and NRCS is conducting the monitoring at Haire Ranch.

**CONSISTENCY WITH AUTHORITY'S ENABLING LEGISLATION, THE SAN FRANCISCO BAY RESTORATION AUTHORITY ACT:**

Consistent with Section 66704.5(a), DU is a private nonprofit organization working on federally owned shoreline parcels in the San Francisco Bay area. Consistent with Section 66704.5(b), the project will 1) restore, protect, or enhance tidal wetlands, managed ponds, and natural habitats on the shoreline in the San Francisco Bay area; and (2) build or enhance shoreline levees or other flood management features that are part of a project to restore, enhance, or protect tidal wetlands, managed ponds, or natural habitats. Consistent with Section 66704.5(e) this award would be used to support construction for an eligible project.

**CONSISTENCY WITH MEASURE AA PROGRAMS AND ACTIVITIES:**

This authorization is consistent with Measure AA's Safe, Clean Water and Pollution Prevention Program because it will restore wetlands that provide natural filters and remove pollution from the Bay's water.

This authorization is consistent with Measure AA's Vital Fish, Bird and Wildlife Habitat Program since it will significantly enhance or restore over 1,000 acres of wetland habitat that will support and increase vital populations of fish, birds, and other wildlife in and around the Bay, including the San Pablo Bay National Wildlife Refuge, part of the San Francisco Bay National Wildlife Refuge Complex.

This authorization is consistent with Measure AA's Shoreline Public Access Program. The conservation education element of the project will provide interpretive materials and hands-on learning about pollution prevention, wildlife habitat, and flood protection, to protect the Bay's health and encourage community engagement.

**CONSISTENCY WITH MEASURE AA PRIORITIZATION CRITERIA:**

1. **Greatest positive impact.** The project's greatest positive impact will be contributing to the creation of a large, connected, protected landscape, including over 14,000 acres of wetlands on the Refuge and within Napa-Sonoma Marshes State Wildlife Area. The project will enhance habitat for vital populations of fish, birds, and other wildlife; restore and enhance seasonal and tidal marshes, thereby enhancing the region's capacity to remove pollution from the Bay's water; and sequester carbon. It will provide habitat for endangered species, including Ridgway's rail and salt marsh harvest mouse, and provide foraging and wintering habitat for hundreds of thousands of waterfowl and shorebirds along the Pacific Flyway. Located on the Refuge, it will enhance opportunities for Bay Area residents to experience the Bay and appreciate all that it offers.
2. **Greatest long-term impact.** A key long-term impact of the project is the connection of upland and tidal habitats and the creation and protection of transition zones, which will provide critical migration space for tidal species as sea levels rise toward the middle of the century. Another long-term impact of the project is that it will advance the greater goal of the Sonoma Creek Baylands Strategy to restore a 20,000-acre matrix of tidal marsh, other wetland habitats, and upland foraging and resting habitat for hundreds of thousands of migratory birds along lower Sonoma Creek. This will provide habitat, water quality, flood protection, and climate resilience benefits to the Bay for future generations.
3. **Leveraging resources and partnerships.** The diverse funder and partner network comprised of federal, state, and local agencies, non-profit organizations, foundations, and industry demonstrates broad support for the project. (See PROJECT FINANCING section above for details.) The project has received support letters (Exhibit 6) from Congressman Mike Thompson, State Senator Bill Dodd, State Assemblymember Cecilia Aguiar-Curry, State Assemblymember Marc Levine, Solano County Supervisor Erin Hannigan, USFWS, Friends of San Pablo Bay National Wildlife Refuge, MIT Academy, Point Blue, NOAA, WCB, CDFW, Audubon California, San Francisco Bay Joint Venture, San Francisco Bay Trail, Water Trail, Bert Whittaker (Sonoma County Regional Parks), Grant Davis (Sonoma Water), Suzanne Smith (Sonoma County Transportation Authority), and the City of Petaluma.
4. **Benefits to economy.** Construction activities will result in direct employment of dozens of workers.
5. **Monitoring, maintenance, and stewardship.** USFWS adopted the Record of Decision for the Cullinan Ranch Restoration Project Final EIR/EIS, which incorporated its Mitigation Monitoring and Reporting Program by reference, on April 9, 2010. DU and the Refuge will create a comprehensive monitoring program with the following elements: compliance monitoring as required by agency permits and as described in the Cullinan Ranch Mitigation Monitoring and Reporting Plan; vegetation mapping; site adaptive management monitoring; and lessons-learned reporting.
6. **Coastal Conservancy's San Francisco Bay Area Conservancy Program.** The proposed project is supported by several local and regional plans, serves a regional constituency within the Bay, is ready for implementation, and will lose project benefits if not implemented quickly.

- **Sonoma Creek Baylands Strategy.** Enhancement of Haire Ranch is part of the larger restoration planning effort for the Sonoma Creek Baylands. The Strategy, funded by Measure AA, is a plan to restore up to 20,000 acres of diked former baylands, with a focus on linking restored wetlands to upland habitat.
  - **Restoring the Estuary: An Implementation Strategy for the San Francisco Bay Joint Venture.** The project will lead to the restoration, and enhancement of at least 1,000 acres, supporting the habitat conservation objectives of the San Francisco Bay Joint Venture.
  - **Baylands Ecosystem Habitat Goals Science Update 2015.** The project promotes the goal for the North Bay subregion to create an unbroken band of restored marshes from the Petaluma River to Vallejo as soon as possible and reconnect the San Pablo Baylands to the Sonoma Creek watershed. The 2015 Science Update stresses the importance of establishing tidal marshes by 2030 to maximize resilience to sea level rise and emphasizes the need to accelerate the planning, permitting, and construction of restoration projects. The Project supports four of the report's five recommended actions: restore estuary-watershed connections, design complexity and connectivity into the baylands, increase coordination among stakeholders, and engage the citizenry in the baylands.
  - **Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Management Plan.** The project supports the goal of this strategy to increase beneficial dredged material reuse. It will increase the amount of material going to restoration by providing funding to pay the cost offset of in-bay or deep-ocean disposal for dredging projects that have suitably clean sediments that otherwise would not go to beneficial reuse.
  - **Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California.** The project helps meet the core goal of this recovery plan —comprehensive restoration and management of tidal marsh ecosystems to lead to the delisting of the focal listed species in the plan.
  - **Comprehensive Conservation and Management Plan for the San Francisco Estuary.** The project includes restoration of critical physical processes and habitats, allowing tidal wetlands to migrate landward and ensuring habitat connectivity as climate change alters landscapes.
  - **Water Quality Control Plan for the San Francisco Bay Basin.** Tidal and freshwater wetland restoration that results from the Project will increase the acreage of Bay wetlands and enable filtration of pollutants, helping to meet water quality objectives identified in this plan.
7. **San Francisco Bay Conservation and Development Commission's Coastal Management Program.** The project supports BCDC's Coastal Management program. Due to ongoing loss of and increasing threats to wetlands, BCDC has placed a high priority on wetland enhancement and stakeholder input that support maintenance of wetland function. BCDC supports direct intervention to prevent additional loss of wetlands and wetland function, and the project will intervene through the restoration and enhancement of at least 1,000 acres of

tidal and seasonal wetlands. It is also consistent with BCDC's objective to increase opportunities for access.

8. **San Francisco Bay Joint Venture's Implementation Strategy.** The project is highly consistent with and helps achieve the SFBJV Implementation Strategy. All elements of the project are current priorities on the SFBJV list. In addition to meeting the primary objectives of restoring and enhancing bay habitats and including monitoring as part of habitat restoration and enhancement projects, the San Pablo Baylands CPR Project also helps meet the implementation strategy's acreage targets for the North Bay subregion.

#### **COMPLIANCE WITH CEQA:**

The project consists of four elements, each of which complies with CEQA.

**Cullinan Ranch.** The Cullinan East element of the project is part of the ongoing Cullinan Ranch Restoration Project (CRR Project). On April 22, 2010, the California Department of Fish and Wildlife certified the *Cullinan Ranch Restoration Project Final EIR/EIS* (Final EIR/EIS), approved the CRR Project, and adopted the Mitigation Monitoring and Reporting Program for the CRR Project. (See Exhibit 3.) The Final EIR/EIS identifies the following impacts as potential effects that will be less than significant with implementation of mitigation measures:

- **Temporary loss of salt marsh harvest mouse habitat and potential mortality of individual salt marsh harvest mice.** This will be mitigated by taking the following actions: Removing salt marsh harvest mice and placing barrier fencing; creating a minimum of approximately 30 acres of new salt marsh harvest mouse habitat; implementing slow flood-up of Cullinan Ranch to encourage a slow emigration from the site rather than a rapid mass exodus that would likely follow rapid flood-up following breaching.
- **Temporary habitat loss that could disturb Ridgway's rails and black rails.** This will be mitigated by avoiding disturbance to Ridgway's rail and black rail habitat during their breeding period.
- **Disturbance of San Pablo song sparrow that could result in abandoned nests and mortality of young.** This will be mitigated by precluding nesting by San Pablo song sparrow by removing preferred nesting vegetation in salt marsh habitat in the vicinity of the breaches; and by conducting surveys prior to breaching, and if San Pablo song sparrows are present, constructing breaches outside of breeding season.
- **Construction-related mortality of salmonids and other special status fish.** This will be mitigated by avoiding construction that could affect tidal aquatic habitats when salmonid species are known to occur.
- **Potential spreading of invasive non-native plants.** This will be mitigated by preventing spread of perennial pepperweed and other invasive non-native plants to uninfested areas to the extent practicable; and monitoring the Cullinan Ranch site for and removing infestations by invasive non-native plants.

- **Release of onsite contaminants contained in dredged materials.** This will be mitigated by implementing selected remediation within areas on the Cullinan Ranch site where dredging and soil-moving activities would occur during construction.
- **Adverse impacts on overall traffic operations along Highway 37 or its approaches during importing operations.** This will be mitigated by developing and implementing a traffic control plan in coordination with Caltrans.
- **Construction of access lanes to and from Highway 37 could result in temporary traffic congestion along Highway 37.** This will be mitigated by developing and implementing a traffic control plan in coordination with Caltrans.
- **Temporary increases in noise levels to more than 65 dBA during construction activities.** This will be mitigated by conducting noise monitoring and implementing noise reducing construction practices if needed.
- **Construction-related emissions of PM10.** This will be mitigated by implementing Bay Area Air Quality Management District standards to control PM10.
- **Potential effects on subsurface historic or archaeological artifacts.** This will be mitigated through the following measures: 1) if unanticipated historic or archeological artifacts are encountered during construction, all work within 50 feet of that area or that would affect that area will stop until an archeological consultant assesses the artifacts; 2) if unanticipated human remains are encountered during construction, a Native American tribal representative and the county coroner will be informed and consulted as required by state law; and 3) subsequent activities in the area will be subject to the findings of the archeological consultant and other required parties.

The Final EIR/EIS also identified significant and unavoidable impacts. These are placement of permanent fill in jurisdictional wetlands and waters of the U.S., permanent loss of mammal habitat and potential mortality of individual mammals, loss of foraging habitat for some raptor species, loss of habitat for some species of wintering waterfowl, loss of potential foraging habitat for special status bat species, and conversion of seasonal wetland habitat to tidal marsh habitat.

With respect to the significant and unavoidable impacts, staff recommends that the Authority adopt a statement of overriding considerations. The specific environmental and other benefits of the CRR Project described in this staff recommendation and detailed in the Final EIS/EIR outweigh and render acceptable the unavoidable adverse environmental effects. These CRR Project benefits are: 1) restoration of native habitat for threatened and endangered salt marsh species as well as other plant and animal species that otherwise would be threatened by loss of critical habitat, and 2) reestablishment of wildlife corridors and connectivity of habitats at the landscape scale.

On May 24, 2012, the California State Lands Commission approved a lease of state lands for the offloading facility for the Cullinan Ranch project. Because the location of the offloading facility had been changed from an upland area adjacent to Dutchman Slough to the Napa River with a pipeline in Dutchman Slough, the State Lands Commission prepared the *Cullinan Ranch Restoration Project Final EIS/EIR Addendum for Offloading Facility* (Addendum). The

Addendum explains that even though the location of the offloading facility changed from the location identified in the Final EIS/EIR, the impacts of the offloading facility and the necessary mitigation measures are sufficiently identified in the Final EIS/EIR, with one change to Mitigation Measure Bio-6.1 (avoiding construction affecting the tidal prism when salmonids are present) to expand its scope to include the Napa River.

The following impacts of the Napa River offloader location were determined to be less than significant with mitigation identified in the Final EIS/EIR:

- **Acoustic impacts on special-status birds from construction.** This will be mitigated by avoiding disturbance to Ridgway's rail and black rail habitat during their breeding period.
- **Aquatic acoustic impacts from construction.** This will be mitigated by avoiding construction that could affect tidal aquatic habitats when salmonid species are known to occur, including during their migration period.
- **Disturbance of cultural resources.** This will be mitigated by stopping work if subsurface cultural deposits are encountered during construction activities. A regional archaeologist or similarly qualified individual (under the approval of the USFWS) will assess the deposits before work resumes in the discovery area.

Staff recommends that the Authority find that the CRR Project has potentially significant effects that are avoided or substantially lessened with the identified mitigation measures and that the six significant and unavoidable environmental effects are outweighed by the environmental and other benefits. Upon approval of the project, staff will file a Notice of Determination for funding the Cullinan Ranch Restoration Project.

**Haire Ranch.** Levee repair at Haire Ranch is categorically exempt from the provisions of CEQA pursuant to Title 14 California Code of Regulations Section 15301 Existing Facilities. This section exempts repair and minor alteration of existing public facilities and topographic features with no expansion of use. Construction of the cutoff wall within the existing levee constitutes a minor repair or alteration of the levee. The cutoff wall will not expand capacity of the levee.

**Targeted Weed Control on the Refuge.** The weed control element of the project is categorically exempt from the provisions of CEQA pursuant to Title 14 California Code of Regulations Section 15304 Minor Alterations to Land as the removal of invasive plants will result in minor alterations to the condition of the land and/or vegetation. The weed control does not involve removal of healthy, mature, scenic trees.

**Conservation Education.** The conservation education element of the project is exempt from CEQA pursuant to Title 14 California Code of Regulations Section 15322 Educational or Training Programs Involving No Physical Changes. The component of the project entails providing students with environmental education at the project site without physically altering the site.

Upon approval of the project, staff will file a Notice of Exemption for the Haire Ranch levee repair, targeted weed control, and student education components of the San Pablo Bay Collaborative Protection and Restoration Project.