

SAN FRANCISCO BAY RESTORATION AUTHORITY

Staff Recommendation
June 7, 2019

**SOUTH BAY SALT POND RESTORATION PROJECT PHASE 2:
EDEN LANDING DESIGN**

Project No.: RA-005
Project Manager: Brenda Buxton

RECOMMENDED ACTION: Authorization to disburse up to \$600,000 to Ducks Unlimited, Inc. for preparation of final construction design, permit applications, and construction bid documents for Phase 2 South Bay Salt Pond Restoration Project actions proposed for ponds between Old Alameda Creek and Alameda Creek Flood Control Channel at Eden Landing Ecological Reserve, Alameda County; and adoption of findings pursuant to the California Environmental Quality Act.

LOCATION: Eden Landing Ecological Reserve, Cities of Hayward and Union City, Alameda County (Exhibit 1).

MEASURE AA PROGRAM CATEGORY: Safe, Clean Water and Pollution Prevention Program; Vital Fish, Bird and Wildlife Habitat Program; Integrated Flood Protection Program; Shoreline Public Access Program.

EXHIBITS

- Exhibit 1: [Project Location Map](#)
- Exhibit 2: [Final Eden Landing Phase 2 EIR and Mitigation Monitoring and Reporting Program](#)
- Exhibit 3: [South Bay Salt Pond Restoration Project Map](#)
- Exhibit 4: [Eden Landing Ecological Reserve Map](#)
- Exhibit 5: [Eden Landing Phase 2 Preferred Alternative](#)
- Exhibit 6: [April 11, 2018 Staff Recommendation \(Attached as PDF without Exhibit 3\)](#)

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 § 66700:

“The San Francisco Bay Restoration Authority hereby authorizes the disbursement of an amount not to exceed six hundred thousand dollars (\$600,000) to Ducks Unlimited, Inc. for preparation of final construction designs, construction bid package documentation, and permit applications for actions proposed for Eden Landing Ecological Reserve as part of Phase 2 of the South Bay Salt Pond Restoration Project, subject to the condition that prior to the disbursement of any funds Ducks Unlimited, Inc. shall submit for the review and approval of the Executive Officer of the Authority a detailed work program, schedule, and budget, the names and qualifications of any contractors to be retained in carrying out the project, and a plan for acknowledgement of Authority funding.”

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 § 66700.
2. The proposed authorization is consistent with The San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Measure (Measure AA).
3. A project labor agreement consistent with San Francisco Bay Restoration Authority Resolution 22 is not required since the proposed authorization does not include funding for construction.
4. The Authority has independently reviewed and considered the information contained in the *Final Environmental Impact Report, South Bay Salt Pond Restoration Project, Eden Landing Phase 2* (Final Eden Landing Phase 2 EIR) which was certified on May 15, 2019 by the California Department of Fish and Wildlife pursuant to the California Environmental Quality Act (“CEQA”), and is attached to the accompanying staff recommendation as Exhibit 2.
5. The Final Eden Landing Phase 2 EIR identifies “significant and unavoidable” impacts regarding traffic impacts from material import. The Final EIR explains that one potential mitigation measure (changing the timing of traffic signals to reduce delay at affected intersections) is not feasible without causing larger, regional impacts on traffic. Therefore, the Authority finds that it is infeasible to avoid, reduce or mitigate this possible significant environmental effect of the project on traffic.
6. The Final Eden Landing Phase 2 EIR identifies “significant and unavoidable” impacts in the area of Air Quality from short-term construction-generated emissions of nitrogen oxides (NOx) if diesel fuel is used to power the pumps that deliver dredge material to the project site. In this event, even the project-specific mitigation measure to use more efficient equipment and reduce NOx emissions would be insufficient to reduce NOx emissions below regional significance thresholds. Because diesel fuel may be used, the Authority finds that it is infeasible to avoid, reduce, or mitigate this possible significant environmental effect of the project on air quality.
7. The Final Eden Landing Phase 2 EIR identifies “significant and unavoidable” impacts in the area of Recreational Resources due to temporary closures of trails to protect public safety during construction. The Authority finds it is infeasible to avoid, reduce, or mitigate this possible significant environmental effect of the project on recreation resources.

8. The Authority finds that specific environmental and other benefits of the project described in the Statement of Overriding Considerations in the accompanying staff recommendation outweigh and render acceptable the project's unavoidable adverse environmental effects because the project will result in long-term environmental benefits including restoring native habitat for threatened and endangered salt marsh species as well as enhancing managed ponds for other plant and animal species that otherwise would be threatened by loss of habitat. In addition, the project will maintain or improve the existing level of flood protection, which will benefit adjacent residences, businesses, and public infrastructure. Finally, although there are temporary impacts to recreational resources (from closure to construct the project and its public access features), the project will also construct new trails, overlooks, interpretive signs and other public amenities which will result in increased wildlife-oriented recreation and public access opportunities."
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PROJECT SUMMARY:

Staff recommends that the Authority authorize disbursement of \$600,000 to Ducks Unlimited, Inc. (DU) to complete construction designs, prepare bid documents, and prepare and submit permit applications needed to construct Phase 2 of the South Bay Salt Pond (SBSP) Restoration Project at Eden Landing Ecological Reserve (Exhibit 3). The recommended funding will provide critical support for implementation of Phase 2 of the SBSP Restoration Project.

On April 11, 2018, the Authority authorized \$6,221,730 for planning and construction of several Phase 2 projects on the federally-owned portions of the SBSP Restoration Project, the Island Ponds and Ravenswood Ponds (see Exhibit 3 for map of all the SBSP Restoration Project's pond complexes). As discussed in the April 11, 2018 authorization, DU's original grant application also requested funding for planning, design, and permitting of the Phase 2 actions on the state-owned portion of the SBSP Restoration Project: the southern portion of the Eden Landing Ponds between Old Alameda Creek and the Alameda Creek Flood Control Channel (Exhibit 4). This funding was not included in the authorization since the Environmental Impact Report for Eden Landing was not yet complete. However, the *Final Environmental Impact Report, South Bay Salt Pond Restoration Project, Eden Landing Phase 2* (Final Eden Landing Phase 2 EIR) for Eden Landing is now complete and was certified by the California Department of Fish and Wildlife (the CEQA lead agency) on May 15, 2019.

This authorization would provide DU with needed matching funds for the design and permitting of the Preferred Alternative proposed in the Final Eden Landing Phase 2 EIR. DU would complete the required construction documents for earthwork (levees, ecotone, berm breaches, channel excavation), water control structures, and design of trails and interpretative features; prepare and submit the required permit applications; and finally, complete the bid package documentation for hiring contractors.

The activities proposed as part of Phase 2 at Eden Landing include tidal wetland restoration, creation of managed pond habitat, phased restoration of some ponds pursuant to an adaptive management process, improvement of flood protection features, as well as construction of habitat transition zones and public recreation features (see Exhibit 5). These actions include the following:

- Breaching the Bay Ponds (Ponds E1, E2, E4, and E7) to allow tidal exchange with Old Alameda Creek and the development of approximately 1,375 acres of tidal wetlands.
- Creating approximately 900 acres of either tidal wetlands or enhanced managed ponds as determined through adaptive management program in the Inland Ponds (Pond E6, E6C, E5) and Southern Ponds (Ponds E1C, E2C, E4C, and E5C) by adding and replacing water control structures. In the future, as the water control structures need to be replaced and depending on the results of the South Bay Salt Pond Restoration Project's Adaptive Management Plan, the land managers may determine that some of the Inland Ponds or Southern Ponds' water control structures should be removed, and the ponds restored to tidal wetland. However, Pond E6C would be specifically enhanced and maintained as western snowy plover habitat permanently.
- To facilitate the passage of fish from Alameda Creek Flood Control Channel into the evolving tidal marsh habitat in the Bay Ponds, the project would create an armored breach in the channel levee to facilitate a hydrologic connection.
- In order to maintain and improve the existing level of flood protection and provide transition zones, the bayside levee in ponds E1 and E2 would be improved and a habitat transition zone (an earthen slope) would be constructed on the eastern, inboard side of the levee. The bayfront side of this levee would be enhanced with root wads, gravel and sand to improve stability and habitat complexity and overall habitat values. In addition, the berms in the middle of the project area and on the landside would be improved and additional habitat transition zones constructed.
- The Preferred Alternative includes completing the Bay Trail through the southern half of the Eden Landing Ecological Reserve area. The proposed Bay Trail route would be on a combination of CDFW land and properties owned by others, based on successful execution of agreements with adjacent landowners. Starting at the existing terminus of the Bay Trail in northern Eden Landing, the to-be-constructed segment would extend on CDFW berms to Old Alameda Creek. The trail would then cross a large tide gate structure and continue along berms to the southeast corner of Pond E6C. From there, the trail would cross a footbridge over an existing channel (owned by the Alameda County Flood Control and Water Conservation District) and then run along the northwest edge of Ponds E4C, E5C, and E1C to connect to the Alameda Creek Flood Control Channel levee. The trail berms would be raised to increase their resilience to sea level rise and to comply with Bay Trail design standard guidelines. A viewing platform featuring benches, interpretive panels, and/or recreational information would be installed along the Alameda Creek Flood Control Channel trail near a trail junction or another interesting habitat feature.
- The Preferred Alternative also includes a bridge over the Alameda Creek Flood Control Channel in approximately the Cal Hill area in order to allow for the potential for other local agency partners to construct this bridge.
- The Preferred Alternative also includes the beneficial reuse of dredge material in the Bay and Inland Ponds (except for Pond E6C, the western snowy plover habitat pond). Adding dredge material would raise pond bottoms more quickly than natural sedimentation processes would and speed up the development of tidal marsh, a particularly desired outcome in the face of accelerating sea level rise. The average annual rate of dredged

sediment delivery to the Bay and Inland Ponds is expected to range from 0.9 to 1.8 MCY (million cubic yards per year). Dredged material would be sourced from dredging projects around the Bay, which typically provide a range of fine and coarse material, although fines would likely be predominant. Only material meeting the San Francisco Bay Regional Water Quality Control Board's (RWQCB) wetland cover suitability criteria or the RWQCB's foundation material suitability criteria and/or permit requirements would be accepted. The dredge material would be mixed with seawater to create a slurry that could be pumped from an offloader via pipelines to the Bay and Inland Ponds. The offloading facility would be located in the deep-water channel approximately 3 miles offshore of Pond E2. Dredging projects wishing to dispose of material at the southern Eden Landing ponds would obtain separate environmental review and permits to dredge and to transport their material to a deep-water transfer point located in the Bay.

DU, a nonprofit organization, has extensive experience restoring habitat for waterfowl and other species. DU has completed numerous wetland restoration projects around San Francisco Bay including several Phase 1 SBSP Restoration projects. In addition to its successful record planning and implementing wetland restoration projects, DU has been successful in securing matching funds. DU was awarded a \$500,000 grant from the U.S. Environmental Protection Agency's San Francisco Bay Water Quality Grant Program and a \$600,000 grant from the State Coastal Conservancy to complete the pre-construction planning, design, and permitting for Eden Landing.

Site Description: Eden Landing Ecological Reserve is one of the three pond complexes that make up the South Bay Salt Pond Restoration Project. The ponds between Old Alameda Creek and the Alameda Creek Flood Control Channel, referred to as southern Eden Landing, have been the focus of Phase 2 planning since most of the ponds in northern Eden Landing were restored or enhanced as part of Phase 1. Historically, the southern part of Eden Landing consisted of tidal marshes interwoven with the mouth of Alameda Creek. Eden Landing was one of the first places around San Francisco Bay where marshes were converted to salt evaporation ponds and salt works remnants can still be seen on the landscape. Today Eden Landing supports a diversity of wildlife including waterfowl, shorebirds, fish, and threatened and endangered species, including the largest western snowy plover colony in the south bay. There is currently no public access in the southern portion of Eden Landing except for the Alameda Creek Flood Control Channel levee trail, currently managed by the East Bay Regional Park District.

PROJECT FINANCING

San Francisco Bay Restoration Authority	\$600,000
Coastal Conservancy	\$600,000
Ducks Unlimited, Inc. (U.S. EPA grant)	\$500,000
Project Total	\$1,700,000

The Authority's funds would be matched by \$600,000 awarded by the State Coastal Conservancy on May 16, 2019 and a 2017 grant from the U.S. EPA to DU.

Phase 2 planning and implementation has been funded by numerous federal, state, and local contribution. A table detailing costs to date for the SBSP Restoration Project is presented in Exhibit 7 in the April 11, 2018 Staff Recommendation which is attached as Exhibit 6.

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

Consistent with Section 66704.5, DU is a private nonprofit organization, and the proposed project is the design and permitting of a project that will: 1) restore, protect, or enhance tidal wetlands, managed ponds, and natural habitats on the shoreline in the San Francisco Bay area; (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; and (3) provide or improve public access or recreational amenities 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 the construction design and permitting phase of the project.

CONSISTENCY WITH MEASURE AA PROGRAMS AND ACTIVITIES:

This authorization is consistent with Measure AA’s *Vital Fish, Bird and Wildlife Habitat Program* since the proposed project will facilitate restoration of over 1,375 acres of tidal wetland habitat and enhancement of over 800 acres of managed pond habitat, both of which will support and increase vital populations of fish, birds, and other wildlife in and around the Bay, including the Eden Landing Ecological Reserve.

Consistent with Measure AA’s *Integrated Flood Protection Program*, the proposed project will facilitate use of natural habitats as a way to protect communities along the Bay’s shoreline from the risks of severe coastal flooding caused by storms and high water levels by constructing transitional upland habitat (ecotone) along the Bay’s edge while also improving existing berms and levees to protect existing shoreline communities and infrastructure.

Furthermore, this authorization is consistent with Measure AA’s *Shoreline Public Access Program* since it will enhance the quality of life of Bay Area residents, including those with disabilities, by designing and permitting approximately four miles of new Bay Trail and interpretive information.

CONSISTENCY WITH MEASURE AA PRIORITIZATION CRITERIA:

1. **Greatest positive impact.** This authorization will provide the critical funding needed to design, permit, and seek constructions bids for Phase 2 of the SBSP Restoration Project at Eden Landing Ecological Reserve, which will create an approximately 2,000-acre mosaic of tidal wetlands, upland transition zone, and managed pond habitats including habitat for endangered and threatened species. The proposed project will also design and obtain permits for additional benefits such as improved flood protection for communities in the Eden Landing area, public access and recreational amenities, and, potentially, beneficial reuse of dredged material.

2. **Greatest long-term impact.** Increasing the amount and quality of wetland habitats has several long-term benefits to San Francisco Bay including helping to recover threatened and endangered species populations. Furthermore, wetland restoration will improve water quality by absorbing nutrients and contaminants and increasing tidal circulation. Since the SBSP Restoration Project is in a highly depositional area of the Bay, the proposed Phase 2 projects are likely to keep up with an accelerated pace of sea-level rise. Furthermore, the proposed projects have incorporated features that will improve long-term resiliency such as gently sloping upland transition zones and engineered levees, which will protect infrastructure and communities from being flooded out during higher tides and storm surges. The upland transition zones will also provide upland transgression areas for the marsh to retreat to over time. The activities will help implement the goals and objectives of the *Tidal Marsh Species Recovery Plan* as well as the *San Francisco Baylands Habitat Goals Report* and its 2015 *Baylands Goals Update*.
3. **Leveraging resources and partnerships.** Over \$39 million has been leveraged for science and Phase 2 planning and construction to date but the San Francisco Bay Restoration Authority funds remain critical for providing funding gaps. 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. Support letters from many of these agencies and organizations were attached to the April 11, 2018 SBSP Restoration Project Phase 2 authorization (Exhibit 7).
4. **Economically disadvantaged communities.** Eden Landing is within 2 miles of a disadvantaged community block group in Union City. Phase 2 project implementation will provide much-needed outdoor recreational access opportunities to members of these communities as well as improvements to bay water quality and resilience to sea level rise.
5. **Benefits to economy.** Phase 2 will create local jobs, improve fisheries, and improve recreation opportunities. Planning and, eventually, construction activities, will result in both direct employment of dozens of workers as well as have ancillary benefits through increased visitation and associated spending. This funding will allow the completion of planning of a significant stretch of the Bay Trail at Eden Landing, taking the trail off city streets and putting the trail closer to the Bay where it was intended.

Newly improved levees with gentle transition slopes will provide improved flood protection, reducing the potential for flooding impacts relative to the unengineered earthen berms currently serving that function. With sea-level rise, flood risk would increase, resulting in economic loss to the surrounding communities. The SBSP Restoration Project will not only reduce this risk, but the levee improvements will also reduce maintenance costs for adjacent landowners, including multiple landfills located at the edge of the bay that will be better protected from rising seas.

6. **Monitoring, maintenance, and stewardship.** The U.S. Fish and Wildlife Service owns and manages the Alviso and Ravenswood Ponds and the California Department of Fish and

Wildlife owns and manages the Eden Landing Ponds. The SBSP Restoration Project seeks to support the management actions of these agencies with an extensive science and adaptive management program designed to understand the outcomes of the restoration actions, address key scientific uncertainties, and provide insights for future phases of the project. Data are made available publicly to researchers and contractors as noted on the SBSP Restoration Project website (www.southbayrestoration.org/monitoring).

On April 11, 2018, the Authority provided \$1.2 million for the Phase 2 Science Program, which includes monitoring and targeted studies of project elements, a climate change assessment to inform adaptive management, and regional integration workshops to develop the most efficient and effective ways to collect data. Work is currently underway on the regional integration. In addition, the Project is tracking habitat changes through large-scale mapping via satellite imagery. Vegetation is monitored to assess potential erosion to adjacent tidal flats and channel development.

7. **Coastal Conservancy's San Francisco Bay Area Conservancy Program.** The actions proposed in this authorization are consistent with the Bay Area Conservancy Program because they: (1) are supported by adopted regional plans (*San Francisco Bay Plan*, *Baylands Ecosystem Habitat Goals Report (1999)* pp. 97, 126-139, *Baylands Goals Update (2015)* pp. 198, 203, and the *San Francisco Basin (Region 2) Water Quality Control Plan (June 29, 2013)* pp. 2-2 and 4-92), (2) are multijurisdictional (involves multiple agencies) and serve a regional constituency (the restoration component will facilitate nationally and regionally significant wetland restoration efforts and will complete regional trail connections), (3) can be implemented in a timely way, (4) provide opportunities for habitat, flood protection, and public access benefits that could be lost if the project is not quickly implemented, and (5) include matching funds from other sources of funding as described above in the "Project Financing" section.
8. **San Francisco Bay Conservation and Development Commission's Coastal Management Program.** The activities and actions proposed are consistent with the Bay Conservation and Development Commission's (BCDC) Coastal Management Program policies since they will restore and increase tidal marsh and other habitats that benefit fish, aquatic organisms, and wildlife, improve water circulation and quality, provide upland transition zones, and provide public access in a manner that avoids adverse effects on natural resources.
9. **San Francisco Bay Joint Venture's Implementation Strategy.** This authorization is consistent with the SFBJV Implementation Strategy and meets many of its objectives. Phase 2 actions at Eden Landing are all current priorities on the SFBJV list and the SFBJV is a key partner in the development of the project. In addition to meeting the overall objectives of improving the management of bay habitats, and including monitoring as part of habitat restoration and enhancement projects, the project also helps meet the Implementation Plan's acreage objectives for the South Bay subregion. The SBSP Restoration Project's Adaptive Management Plan's monitoring and study results are informing monitoring efforts baywide and data are shared among researchers and the regulatory community.

COMPLIANCE WITH CEQA:

In order to comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), USFWS and the California Department of Fish and Wildlife (CDFW) prepared a Draft *South Bay Salt Pond Restoration Project, Environmental Impact Statement/Report, Eden Landing Phase 2* to evaluate the potential environmental impacts of Phase 2. However, since NEPA is not required in securing a USFWS permit for the project, and because this Phase 2 project is not taking place on federal lands and because the USFWS is not providing federal funding towards implementation, the document is being finalized as an EIR rather than an EIS/EIR. CDFW has certified the *Final Environmental Impact Report, South Bay Salt Pond Restoration Project, Eden Landing Phase 2* (Final Eden Landing Phase 2 EIR) solely as an EIR. The Final Eden Landing Phase 2 EIR will still include enough information to help facilitate the eventual NEPA process that will take place as part of future federal agency permitting (e.g., U.S. Army Corps of Engineers Section 404 Clean Water Act permitting) that will be necessary for project implementation. The Final Eden Landing Phase 2 EIR and Mitigation Monitoring and Reporting Program are attached as Exhibit 2.

This environmental document is a project-level environmental impact report addressing the specific components and implementation of Eden Landing Phase 2 but tiers off of the *2007 South Bay Salt Pond (SBSP) Restoration Project Programmatic Environmental Impact Statement/Environmental Impact Report* (2007 EIS/R). The Department of Fish and Wildlife was the CEQA lead for the 2007 EIS/R.

The Programmatic Context of the Phase 2 Alternatives

The Final Eden Landing Phase 2 EIR tiers from the analysis conducted for the 2007 EIS/R by advancing the restoration, public access, and flood protection goals of the SBSP Restoration Project. The 2007 EIS/R assessed the environmental consequences associated with two long-term restoration alternatives. In consideration of the environmental consequences discussed in the 2007 EIS/R, the USFWS Record of Decision (ROD) and the CDFW Notice of Determination (NOD) state that the USFWS and CDFW will implement Programmatic Alternative C, the Tidal Emphasis Alternative, which would eventually convert 90 percent of the former salt ponds to tidal marsh, while 10 percent would remain as enhanced managed ponds. The USFWS and CDFW will retain the option of stopping tidal marsh restoration prior to restoring 90 percent of total acreage as tidal marsh if, for example, monitoring shows that pond-dependent species appear to be adversely affected by the losses of pond habitats. In this case, the SBSP Restoration Project may shift future project phases toward enhanced managed pond habitat and achieve an end result somewhere between Programmatic Alternative B (50% tidal restoration) and Programmatic Alternative C (90% tidal restoration).

Phase 2, as the second project component of this long-term restoration project, would incrementally advance the project toward these end goals. Although Phase 2 is a significant increment, at the end of all the Phase 2 projects proposed at Eden Landing as well as in the Ravenswood and Alviso pond complexes (Final Phase 2 EIS/R, April 2016), a total of almost 50% of the total project area will have been enhanced or restored as either marsh or enhanced managed ponds. The long-term restoration project will still need additional phases of implementation to reach Programmatic Alternative B (50% tidal restoration) which was the minimum tidal restoration alternative proposed by the project. It is only when combined with the tidal restoration proposed by the Shoreline Study project that over 50% of the project area will have been restored to tidal wetlands and the SBSP Restoration project will have met its minimum goals.

Adaptive Management's Role in Preventing Significant Impacts

The 2007 EIS/R identified adaptive management as having a significant role in preventing impacts. While many of the impacts identified in the 2007 EIS/R were beneficial, (e.g. increased tidal wetlands), to achieve those benefits some negative impacts to the environment could occur (e.g. loss of pond habitat). By incorporating the adaptive management process into the design of the Phase 1, those potentially significant negative impacts were avoided. A similar approach was used for the design of Phase 2. Using information from monitoring and applied studies, the SBSP Restoration Project Management Team (PMT) has continually assessed progress towards project objectives and restoration targets. The PMT has been largely successful in using adaptive management as it was intended: not as a series of remedial actions to make up for negative impacts, but rather, as a method to detect problems early and take action to avoid impacts before they reach a threshold of significance. This approach continues at Eden Landing where decisions whether or not to restore the Inland Ponds to tidal wetlands will be made pursuant to an adaptive management process that will weigh the impacts of tidal conversion to the species currently using the ponds with the benefits of additional marsh restoration.

Eden Landing Phase 2 Project Analysis

In order to create a reasonable range of alternatives as required under CEQA, a No Action Alternative (referred to as Alternative A for each project area in the Final Eden Landing Phase 2 EIR) as well as separate sets of Action Alternatives were included. This discussion focuses only on the action alternatives. All project alternatives proposed tidal restoration in the Bay Ponds (Ponds E1, E2, E4, E7) but Alternative B proposed tidal restoration in all ponds (Bay, Inland and Southern). Alternative C proposed tidal restoration in the Bay Ponds, but the Inland Ponds (Ponds E5, E6, and E6C and the Southern Ponds (E4C, E5C, E1C, E2C) would become permanent managed ponds. Alternative D proposed that restoration of the Inland (E6, E5, E6C) and Southern Ponds would be phased in through an adaptive management-informed decision making. Based on the configuration of tidal restoration goals, the habitat transition zones and flood protection features, levee breaches, and water control structures varied to implement the restoration scenario. The alternatives for trail alignment also varied depending on the availability of berms or levees for the trail, the location of the pond breaches, and the need to direct the public away from sensitive wildlife habitat (such as the E6C, snowy plover habitat). Most trail alternatives completed the route through the site by connecting the existing Eden Landing Bay Trail terminus and the Alameda Creek Flood Control Channel levee trail but one of the variations directed a short segment of the trail onto city streets, before reaching the Flood Control Channel, in case agreements with neighboring landowners to complete the trail on their lands could not be obtained. The Preferred Alternative completes the route through the Eden Landing site but notes that agreements will need to be negotiated with other landowners to allow the trail in some locations. The use of dredge material involved construction of an offloader facility in all alternatives but Alternative B and D proposed using the material in Bay and Inland Ponds, while Alternative C proposed the Bay Ponds only. In addition, the Preferred Alternative incorporates public comment to expand the habitat enhancements of the outboard, bayside levee proposed in Alternative B to also include some coarse grain beach and berm features that will provide added flood protection and shorebird habitat. The difference between the alternatives is described in the Environmental Setting, Impacts, and Mitigation Measures Chapter, Sections 3.2 through 3.17, and summarized in the Executive Summary, Table ES-1, of the Final Eden Landing Phase 2 EIR.

To create the Preferred Alternative, the PMT considered comments on the Draft Eden Landing Phase 2 EIS/R from regulatory agencies, adjacent landowners, as well as other stakeholders, input from scientists conducting applied studies for the project, and judgment of other technical experts, including USFWS and CDFW staff, in order to select a Preferred Alternative that would best accomplish the goals of the SBSP Restoration Project. The Preferred Alternative as proposed combines individual components from action alternatives or makes minor modifications in order to create the best project for that Eden Landing Phase 2 project area. The Alternatives are summarized and compared with the Preferred Alternative in Table 6-1, pp. 6-5 – 6, of the Final Eden Landing Phase 2 EIR.

CEQA Process

The CDFW and the USFWS complied with CEQA and NEPA noticing requirements through the draft EIR/S. A Notice of Intent to prepare an EIS/R for Phase 2 of the SBSP Restoration Project was published in the Federal Register on June 20, 2016, and a Notice of Preparation was distributed to responsible agencies and the public on May 24, 2016. A public scoping meeting was held on June 30, 2016, to solicit comments on environmental issues to be addressed in the Draft Eden Landing Phase 2 EIS/R. The scoping comments received during the comment period and additional comments received after the comment period are presented in Appendix A of the Final Eden Landing Phase 2 EIR. The Draft Eden Landing Phase 2 EIS/R was released on April 5, 2018, and the public review and comment period closed June 4, 2018. During that comment period, a public meeting was held on May 8, 2018. The project team received 51 letters from individuals and organizations with over 300 individual comments. The Final Eden Landing Phase 2 EIR provides responses to all comments in Appendix J and changes to the document as appropriate to respond to comments. Copies of the Final Eden Landing Phase 2 EIR including the responses to comments have been provided to state and local trustee and responsible agencies as well as parties who commented or requested copies. In addition, copies have been sent to 15 local libraries and posted on southbayrestoration.org, and email notices of availability have been sent to the SBSP Restoration Project stakeholders. The Final Eden Landing Phase 2 EIR was adopted by the CDFW on May 15, 2019.

Significant Effects Reduced to Less Than Significant Levels by Mitigation

The 2007 EIS/R developed program-wide comprehensive mitigation measures that were adopted as part of Phase 1 and could be incorporated into future phases. These programmatic mitigation measures are identified in Section 2.3 in Chapter 2 of the Final Eden Landing Phase 2 EIR. The Final Eden Landing Phase 2 EIR incorporates these general mitigation measures into the project designs; therefore, they are part of Phase 2 projects. These project features include actions to manage illegal dumping and urban runoff, protocols for the discovery of unknown resources, management of construction and emissions from construction equipment as well as requirements for health and safety plans from construction contractors.

In addition to the measures identified in the 2007 EIS/R, the Final Eden Landing Phase 2 EIR identifies two project-level mitigation measures developed for the Eden Landing Phase 2 project. **Mitigation Measure AQ-A, Construction Equipment** requires equipment to meet the Tier 4 California Emission Standards unless such equipment is proven to be unavailable. **Mitigation Measure AQ-B, Marine Vessels** requires construction contractors and dredge material operators to use vessels that meet the latest U.S. EPA exhaust emission standards for marine engines unless such engines are proven to be unavailable.

Mitigation Monitoring and Reporting Program

Under CEQA whenever measures are required and adopted in order to mitigate or avoid the significant effects on the environment of an approved project, the agency must also prepare and adopt a mitigation monitoring or reporting program designed to ensure compliance with the required mitigation during project implementation (Public Resources Code Section 21081.6). CDFW has adopted a Mitigation Monitoring and Reporting Program for the project, attached as part of Exhibit 2.

Significant Impacts

The Final Eden Landing Phase 2 EIR found three impacts that cannot be reduced to less-than-significant (see Table ES-2 Summary Impact Table in Exhibit 2) even after implementation of project-specific mitigation measures, as described below:

- ***Eden Landing Phase 2 Impact 3.6-5: Result in the temporary construction-related closure of adjacent public parks or other recreation facilities, making such facilities unavailable for public use.*** Existing parking areas, park access, and some trails would be temporarily closed during portions of the construction work under the Action Alternatives. This approach is necessary to keep the public safe and provide a route through existing parks to bring materials and equipment to the project areas. These impacts are significant and unavoidable.
- ***Eden Landing Phase 2 Impact 3.11-1: Potential short-term degradation of traffic operations at intersections and streets due to construction.*** A traffic impact analysis was prepared to analyze the impact of construction-related traffic on each of the Action Alternatives; this study found that at the AM peak hour the impact is considered significant. The optimization of the I-880 Southbound Ramps/Whipple Road/Dyer Street intersection would mitigate the impact to less than significant. However, this mitigation is not feasible as this intersection is part of a synchronized series of intersections. This would therefore cause a significant and unavoidable impact for each Action Alternative.
- ***Eden Landing Phase 2 Impact 3.13-1: Short-term construction-generated air pollutant emissions.*** Construction-generated average daily NO_x emissions would exceed applicable regional significance thresholds during import and placement of dredge materials. Project-specific mitigation measures will be used to reduce NO_x emissions to the greatest extent feasible, but for those options where diesel is used to power the offloading facility and booster pumps, NO_x emissions would still exceed the regional threshold of significance. Therefore, significant and unavoidable impacts would occur for each Action Alternatives if diesel is used to power the construction equipment during import and placement of dredge materials. (Annual emissions would be below General Conformity *de minimis* levels with incorporation of the project-specific mitigation measures. Therefore, construction-related emissions associated with diesel powered construction equipment would conform to the State Implementation Plan, and a formal conformity analysis would not be required.)

Cumulative Impacts

The Final Eden Landing Phase 2 EIR also evaluates the potential environmental impacts of Eden Landing Phase 2 when considered together with other projects. The analysis addresses the impacts that could occur as a result of project construction and operation, based on the significance criteria provided for each resource. The analysis of cumulative impacts follows these steps: First, the “Cumulative Impacts” section of the 2007 EIS/R was reviewed based on an updated list of relevant cumulative impact projects to determine if these findings needed to be updated or changed. Then Eden Landing Phase 2 was evaluated as to whether it, in combination with impacts from other projects, would create a significant new cumulative impact. In cases where a significant cumulative impact already existed, even without the SBSP Restoration Project, Eden Landing Phase 2 was examined to determine if it would make a considerable contribution to that impact. If it was determined that Eden Landing Phase 2 would not make a considerable contribution to a significant cumulative impact, the impacts were determined to be less than significant. This analysis found that project-specific mitigation measures will reduce NOx emissions to the greatest extent feasible but for those options where diesel is used to power the offloading facility and booster pumps during dredge material operations, NOx emissions would still exceed the regional threshold of significance, but this project would not make a cumulatively considerable contribution to them.

Project Benefits

Eden Landing Phase 2 of the South Bay Salt Pond Restoration Project includes the following benefits:

- Construction and/or raising of levees and habitat transition zones to ensure flood protection and reduce the potential effects on people and property from subsequent flooding.
- Providing habitat for threatened and endangered salt marsh species such as California Ridgway’s rail, salt marsh harvest mouse, and steelhead trout.
- Providing increased cover and escape from storm-run up and sea-level rise for marsh-dependent species by creating and planting habitat transition zones.
- Creating suitable habitat for special-status plant species in habitat transition zones.
- Providing habitat for resident and migrating shorebirds and waterfowl by providing more extensive shallow water habitats than would occur in marshes that develop in ponds that breach unintentionally.
- Providing coarse grain beach habitat for shorebirds and other wildlife, which also provides levee erosion protection.
- Helps meet the goals of adopted regional plans to beneficially reuse dredge material that would otherwise be disposed of in the ocean or other in-bay sites.
- Providing improved connection to estuarine rearing habitat for migratory steelhead.
- Improving water flows and circulation in the ponds to reduce water quality impacts.
- Increasing the amount and quality of public access and recreation.
- Increasing opportunities for wildlife viewing and environmental interpretation.

Statement of Overriding Considerations

In the event a project has unavoidable significant effects, the CEQA Guidelines require the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project (14 Cal. Code of Regulations, Section 15093). If the specific project benefits outweigh the unavoidable adverse environmental effects of the project, a Statement of Overriding Considerations may be adopted and the project approved, despite its adverse environmental effects.

The overall environmental benefits of the proposed project as detailed above and in the Final Eden Landing Phase 2 EIR recommend that the Authority approve the project even though not all of the potentially significant environmental effects of the project are mitigated.

The “significant and unavoidable” impacts are related to construction. Due to temporary closures to public access facilities (i.e. trails, trailheads) during construction, there would be a temporary loss of use of recreational facilities (**Impact 3.6-5**). In the absence of the proposed Eden Landing Phase 2 projects, these impacts could still happen from other construction projects in the area (i.e. flood protection projects), but without the habitat and other benefits described above. The inconvenience of closed facilities is of short-term duration but the benefits of habitat restoration, improve flood protection, and new recreational facilities will be long-term. Construction would also require movement of equipment and dirt hauling operations that could exacerbate traffic congestion around the project area (**Impact 3.11-1**). This impact would end with the completion of construction and dirt hauling. Finally, if electric engines cannot be used for the offloader facility and booster pumps during the placement of dredge material, then air quality impacts would be significant, although limited to the construction period only (**Impact 3.13-1**).

For these reasons, the Authority staff recommends that Authority find that the specific environmental, resource, flood protection and public access enhancement benefits of the Preferred Alternative proposed in the Final Eden Landing Phase 2 EIR, as described in the Project Benefits section above, outweigh the unmitigated or unavoidable environmental effects of the project, thereby warranting its approval. Upon approval of the proposed project, Authority staff will file a Notice of Determination.