1. INTRODUCTION

Phase 2 of the South Bay Salt Pond (SBSP) Restoration Project is a collaborative effort among federal, state, and local agencies working with scientists and the public to develop and implement project-level plans and designs for habitat restoration, flood management, and wildlife-oriented public access. The Project Area is mostly within portions of the former Cargill Inc. (Cargill) salt ponds in South San Francisco Bay (South Bay), which were acquired by the California Department of Fish and Wildlife (CDFW), formerly the California Department of Fish and Game (CDFG) and the United States Fish and Wildlife Service (USFWS) in 2003. The former salt ponds included in this Environmental Impact Statement/Environmental Impact Report (EIS/R) are part of the CDFW-owned and managed Eden Landing Ecological Reserve (ELER, or Reserve) which as a whole covers approximately 4,600 acres in the South Bay. The eleven Reserve ponds in Phase 2 are collectively 2,270 acres.

This Draft EIS/R was prepared by CDFW and USFWS, partnering with the California State Coastal Conservancy (SCC), with technical assistance from the Alameda County Flood Control and Water Conservation District (ACFCWCD) and others to evaluate the potential environmental impacts of the proposed SBSP Restoration Project, Eden Landing Phase 2.

This Draft EIS/R provides a project-level evaluation and analysis of the SBSP Restoration Project, Phase 2 at Eden Landing. The 2007 SBSP Restoration Project Final EIS/R (2007 Final EIS/R) (USFWS and CDFG 2007) was a programmatic EIS/R that analyzed the larger, program-wide details of the SBSP Restoration Project and also included a full project-level analysis for the Phase 1 actions. Where feasible and appropriate, this Draft EIS/R uses information and analysis from the 2007 Final EIS/R for analysis of the project-level impacts of the SBSP Restoration Project, Eden Landing Phase 2.

1.1 Overview of the SBSP Restoration Project

The SBSP Restoration Project is a multi-agency effort to restore tidal marsh habitat, reconfigure managed pond habitat, maintain or improve flood risk management, and provide recreation opportunities and public access in 15,100 acres of former salt-evaporation ponds purchased from and donated by Cargill in 2003.[1] Immediately after the March 2003 acquisition and subsequent transfer of those ponds from Cargill, the landowners, USWFS and CDFW, began implementation of the Initial Stewardship Plan (USFWS and CDFG 2003), which was designed to maintain open water and unvegetated pond habitats with enough water circulation to preclude salt production and maintain habitat values and conditions until long-term restoration actions of the SBSP Restoration Project are implemented. The longer-term planning effort involves a 50-year programmatic-level plan for restoration, flood risk management, and public access. This effort has already seen the implementation of Phase 1 projects, which are described in the 2007 Final EIS/R. The Record of Decision (ROD) signed on January 27, 2009, completed the programmatic level planning process. It was through that planning process that the SBSP Restoration Project developed the

[1] The former salt-production ponds are no longer used for that purpose, and, in many cases, they are operated with salinity conditions ambient with tidal sloughs and San Francisco Bay itself. Some are operated as seasonal ponds that are filled by rainfall along with gravity intake and discharge, and others have been opened to tidal flows by previous actions and are no longer managed ponds. However, for consistency with previous documents associated with the SBSP Restoration Project, this EIS/R has retained the convention of referring to them as “salt ponds” or “ponds”. These are not to be confused with actual salt evaporation ponds still being operated by Cargill.

projects goals and objectives that are discussed further under Section 1.2.1, Purpose and Objectives. These goals and objectives continue to guide the project planning to the present day.

The decision-making and management structure for the SBSP Restoration Project involves collaborative partnerships between public agencies, private organizations, environmental advocates, and the public. The Project Management Team (PMT) provides the day-to-day leadership and management for the project and oversees adaptive management planning and implementation; fundraising; dispute resolution; and outreach to the public, stakeholders, and regulatory and other government agencies. The membership on the PMT consists of representatives from the SCC, the landowning agencies (USFWS and CDFW), the Santa Clara Valley Water District (SCVWD) and the United States Geological Survey (USGS) (the USGS representative serves as the project's Lead Scientist). The Lead Scientist facilitates ongoing communication between scientists working on relevant research and ensures scientific outputs are incorporated into PMT decision making as much as possible. The ACFCWCD and the East Bay Regional Parks District (EBRPD) were also members of the PMT for Phase 1. While not acting as direct partners for Phase 2, representatives from ACFCWCD and EBRPD continue to provide technical assistance to the PMT, and may resume active membership in the future. An Executive Project Manager coordinates and leads the PMT. A representative from the Center for Collaborative Policy also participates in the PMT meetings to maintain ongoing outreach efforts, including those for the project's Stakeholder Forum. The Stakeholder Forum consists of invited representatives from agencies, nonprofit organizations, local business organizations, and elected officials. The Stakeholder Forum advises the PMT on proposed project decisions and represents the project within their communities. The San Francisco Estuary Institute created and maintains the project's website at www.southbayrestoration.org to provide outreach on events, updates on the project status, and presentations on scientific research that is relevant to project. The PMT has met monthly since its inception in 2003.

The planning phase of the SBSP Restoration Project was completed in January 2009 with the signature of the ROD and subsequent regulatory permit issuance. Implementation of the Phase 1 project-level restoration actions in the Reserve began immediately after completion of final designs, and restoration actions were completed in 2014. The final public access and recreation features were completed and opened to the public in May 2016. Phase 1 involved the construction of 3,040 acres of tidal or muted tidal wetlands, 710 acres of enhanced managed ponds, 7 miles of new public access trails, and habitat islands and improved levees.[2] The planning and design for the Phase 2 projects started in 2010, continued for the Alviso and Ravenswood complexes (owned and managed by USFWS and located at the Don Edwards San Francisco Bay National Wildlife Refuge; or Refuge) with the 2015 Phase 2 Draft EIS/R and 2016 Phase 2 Final EIS/R for the Alviso and Ravenswood complexes, and continues for Eden Landing with this Draft EIS/R. The ponds that were not part of Phase 1, nor planned to be part of Phase 2, will continue to be actively managed according to the goals set forth in the Initial Stewardship Plan the Adaptive Management Plan (AMP), the 2007 Final EIS/R, and current operations plans, until further implementation planning is completed and any necessary adaptive management studies are completed.

The following sections describe the goals, objectives, and planning approach set forth in the 2007 Final EIS/R; how they were used to select Phase 1 projects, and how these principles continued to guide the project with the selection of the Phase 2 projects.

[2] The SBSP Restoration Project refers to all former salt pond levees as "levees" even though they were not designed or constructed to perform as true flood protection levees. They are largely earthen berms intended to isolate water for salt production. In keeping with this project's established terminology, this Draft EIS/R maintains the term "levees" throughout.

1.2 Purpose and Need

The Phase 2 actions described in this Draft EIS/R tier from the 2007 Final EIS/R and consist of project-level implementation of the SBSP Restoration Project for some areas of the Reserve. Phase 2 also includes options for incorporating some non-Reserve areas into the project planning and design through collaboration with the entities that own those areas (more detail on this is in Section 1.5, below). Proposed Phase 2 actions are intended to move toward achieving the overall purpose and need, goal, and objectives developed for the SBSP Restoration Project as a whole. The purpose and need, goal, and objectives were developed for the 2007 Final EIS/R by the SBSP PMT with input from the Stakeholder Forum, Science Team, and Regulatory and Trustee Agency Group. As such, Phase 2 has the same purpose and need, goal, and objectives as the SBSP Restoration Project as a whole.

The goal, objectives, and purpose and need are discussed in the following sections.

1.2.1 Goal and Objectives

The overarching goal and six objectives developed for the SBSP Restoration Project, which were adopted by the SBSP Restoration Project Stakeholder Forum on February 18, 2004, and presented in the 2007 Final EIS/R, apply to Eden Landing Phase 2.

Goal

The goal of Phase 2 of the SBSP Restoration Project at Eden Landing is the restoration and enhancement of wetlands in the South Bay while providing for flood management and wildlife-oriented public access and recreation.

Objectives

Consistent with those listed in the 2007 Final EIS/R, the objectives of Phase 2 of the SBSP Restoration Project at Eden Landing are:

1. Create, restore, or enhance habitats of sufficient size, function, and appropriate structure to:
    - Promote restoration of native special-status plants and animals that depend on South Bay habitat for all or part of their life cycles.
    - Maintain current migratory bird species that utilize existing salt ponds and associated structures such as levees.
    - Support increased abundance and diversity of native species in various South Bay aquatic and terrestrial ecosystem components, including plants, invertebrates, fish, mammals, birds, reptiles, and amphibians.
2. Maintain or improve existing levels of flood risk management in the South Bay. [3]
3. Provide public access and recreational opportunities compatible with wildlife and habitat goals.

[3] The 2007 Final EIS/R and other SBSP Restoration Project documents used the term "flood protection" to describe its goals, but the conventional terminology has since changed to be "flood risk management." This document generally uses the former term to refer to overall Project goals that were established prior to this terminology change but uses the latter term for forward-looking statements and actions that would be taken in the future.

4. Protect or improve existing levels of water and sediment quality in the South Bay and take into account ecological risks caused by restoration.

5. Implement design and management measures to maintain or improve current levels of vector management, control predation on special-status species, and manage the spread of non-native invasive species.

6. Protect the services provided by existing infrastructure (e.g., power lines, railroads).

1.2.2 Purpose and Need for Action

Phase 2 of the SBSP Restoration Project at Eden Landing is needed to address the following:

- Historic losses of tidal marsh ecosystems and habitats in San Francisco Bay (or Bay) and concomitant declines in populations of endangered species (e.g., California Ridgway's rail [(*Rallus obsoletus obsoletus*; formerly California clapper rail)], salt marsh harvest mouse [*Reithrodontomys raviventris raviventris*]);
- Increasing salinity and declining ecological value in several of the ponds within the project area;
- Long-term deterioration of non-certifiable levees (for Federal Emergency Management Agency [FEMA] purposes) within the project area, which could lead to levee breaches and flooding;
- Long-term tidal flood risk management; and
- Limited opportunities in the South Bay for wildlife-oriented recreation.

The purpose of the SBSP Restoration Project is to meet the needs described above through implementing various alternatives to restore tidal marsh habitat, reconfigure managed pond habitat, maintain current levels of flood risk management, and provide recreation opportunities and public access.

1.2.3 Restoration

The 2007 Final EIS/R describes a mix of tidal habitat and managed pond habitat restoration intended to balance the trade-offs between several ecological goals and objectives. The 2007 Final EIS/R stated that the SBSP Restoration Project's preferred alternative was Programmatic Alternative C, which would restore up to 90 percent of the SBSP Restoration Project's ponds to tidal wetlands, in phases, through an adaptive management framework. Programmatic Alternative B would have set a target at 50 percent tidal marsh and 50 percent enhanced managed ponds. In choosing Programmatic Alternative C, the PMT left itself flexibility to work towards that end goal while still acknowledging that the 50/50 balance from Alternative B and the 90/10 balance from Alternative C represented "bookends" of what the long-term restoration outcomes would be and that the actual stopping point of restoration would likely be somewhere between these end-points.

Although restoration of tidal habitat would benefit special-status and native species (Objective 1a), enhancement of managed pond habitats would help maintain the migratory bird species using the existing ponds (Objective 1b). Both habitat types would support an increased abundance and diversity of the native species of the South Bay (Objective 1c). The SBSP Restoration Project's success in balancing these objectives will be evaluated through implementation of the Adaptive Management Plan (AMP), which not only helps the ongoing and short-term management actions and decisions for the SBSPs but also helps determine future restoration targets for each of the ponds to balance tidal marsh restoration

with enhancement of managed ponds and the eventual stopping point between the 50/50 and 90/10 bookends described above. Successfully balancing the types of restoration actions means that the SBSP Restoration Project can maximize benefits to the broadest spectrum of sensitive and other wildlife species, while minimizing undesired impacts to the environment. Phase 2 actions at Eden Landing are a continuation of this process.

Other planning considerations that supported the SBSP Restoration Project's objectives were taken into account. Tidal marsh restoration projects were located where they would eventually create a continuous band of tidal marsh (a "tidal marsh corridor") along the edge of San Francisco Bay to provide connectivity of habitat for tidal-marsh-dependent species, particularly the Ridgway's rail and the salt marsh harvest mouse. Also, areas adjacent to the major sloughs that serve as migration corridors for anadromous fish were identified as a high priority for tidal restoration. Where possible, the SBSP Restoration Project seeks to restore broad tidal areas protected from human and predator access.

As an adaptation to future sea level rise, the project is proposing the creation of habitat transition zones as part of Phase 2 actions at Eden Landing. Habitat transition zones involve the beneficial reuse of material to create transitional habitats from the pond or marsh bottom to the adjacent upland habitat along portions of the upland edge. These "habitat transition zones", are sometimes referred to elsewhere as "upland transition zones," "transition zone habitats," "ecotones," or "horizontal levees"; this document uses "habitat transition zones" for these constructed features. Transition zones are specifically called out in documents such as the USFWS's Tidal Marsh Recovery Plan and the recent Science Update to address climate change for the Baylands Ecosystem Habitat Goals Project Report. A gradual transition from submerged Baylands, ponds, or open waters to uplands is largely missing in the current landscape of the South Bay, where there is often an abrupt boundary between the bay or ponds and the built environment. The SBSP Restoration Project's intention in including habitat transition zones in the Eden Landing Phase 2 alternatives is to restore this missing habitat feature. Doing so would:

1. Establish areas in which terrestrial marsh species can take refuge during high tides and storm events, thereby reducing their vulnerability.

2. Expand habitat for a variety of special status plant species that occupy this specific elevation zone.

3. Provide space for marshes to migrate upslope over time as sea-level rise occurs.

Before proposing these features, the SBSP Restoration Project examined the landscape to see if there are any areas adjacent to the project site where this could occur naturally. In general, the best locations for building these features would be located adjacent to open space or park land where the project can provide an even greater extent of transition into upland habitats. However, at the edge of the Bay, these open space areas are often former (now closed and capped) landfills that present a variety of challenges for creating the missing upland habitat. The existing elevation gradient between the restored marsh and the edge of the landfill is usually too steep to provide a gradual transition. Secondly, these landfills would otherwise pose a water quality risk from erosion if tidal action were introduced immediately adjacent to the protective clay liner or un-engineered rip rap slopes. In these instances, it is necessary that the project place material inside the former salt ponds to create the desired slope (15:1 to 30:1).

At other locations, whether the adjacent lands are closed landfills or other forms of public or private development, the actual elevations landward of the project sites are too low to create an uphill slope with the desired habitat functions. Therefore, once new levees are built to protect that area from tidal flooding, the only area remaining to build the transition zones is into the salt ponds. Finally, most of the adjacent

property is not within the SBSP Restoration Project's ability to acquire, whether or not it has the desired elevation profile, because it is currently developed. In addition to being very expensive to acquire these areas, it would be infeasible to relocate all of the residences and businesses that have been built adjacent to the salt ponds.

For these reasons, the project plans to use imported fill from upland excavation projects and beneficial reuse of clean dredged material to create habitat transition zones inside the former salt ponds. The transition zones would improve the habitat quality of the restored marsh, particularly for endangered and threatened species, and improve resiliency of the shoreline over time as sea levels rise.

Phase 2 actions at Eden Landing could provide a combination of restored tidal wetlands and enhanced managed ponds. The approach to enhancing the managed ponds was to reconfigure the former salt production ponds to provide many of the ecological benefits, though in a smaller footprint, by providing enhanced water flows, pond depth, and salinity regimes for target species, especially migratory shorebirds and waterfowl, but also nesting terns and shorebirds. The creation of roosting and nesting islands was identified as part of pond enhancement. Reconfigured managed ponds would be located in accessible areas to provide for ease of operation and maintenance (O&M) and dispersed so they are readily available to birds traveling between the ponds and other habitats throughout the South Bay. The project expects to rely on gravity-flow structures as much as possible to minimize the costs of pumping while providing adequate pond habitat to support high densities of birds. Ponds near interpretive opportunities, such as the historical salt works, are to be managed as appropriate to preserve the historic resources of interest.

1.2.4 Flood Risk Management

The second goal of the SBSP Restoration Project (Objective 2) is "to maintain or improve existing levels of flood protection in the South Bay Area". Since the time of project initiation, however, the terminology used by the SBSP Restoration Project to describe its goals has changed from "flood protection" to "flood risk management" to distinguish improvements to existing berm-like salt pond levees from engineered levees specifically designed for flood protection. This document generally uses the former term to refer to overall project goals that were established prior to this terminology change but uses the latter term for forward-looking statements and actions that would be taken in the future.

The project and adjacent areas are in low-lying Bay shoreline that could be vulnerable to coastal flooding from storms and sea-level rise. Recognizing that the changing hydrology in these areas requires the expertise and funding available from local flood protection agencies, the SBSP Restoration Project's management team invited these agencies to join the planning team early in the process. The approach to managing flood risks with tidal restoration projects was to locate the projects in areas where they would not increase the existing flood risk; in addition, existing levees were to be improved to provide increased, if still limited, protection or to raise existing high-ground areas with fill. In areas where this approach was not sufficient, the project sought to work with local flood protection agencies to implement the appropriate measures to protect adjacent areas and allow for tidal and other habitat restoration.

Flood risk management continues to be a significant consideration for Phase 2 at Eden Landing. In Alameda County, the SBSP Restoration Project is working with ACFCWCD to address flood risks at Eden Landing. Analogous efforts are ongoing with the SCVWD and the United States Army Corps of Engineers (USACE) in Santa Clara County, and with the Strategy to Advance Flood Protection, Ecosystems and Recreation along the Bay (SAFER Bay) project, an effort led by the San Francisquito Creek Joint Powers Authority, in San Mateo County. See Section 1.2.8, Phase 2 Planning Process, which

provides details about why efforts to plan and undertake environmental compliance for Phase 2 actions at Eden Landing are being conducted separately from those in Santa Clara County and San Mateo County.

1.2.5 Recreation and Public Access

To meet the third goal and project Objective 3 ("provide public access and recreation opportunities compatible with wildlife and habitat goals"), the SBSP Restoration Project incorporates public access features into project design. The 2007 Final EIS/R describes actions to complete the missing segments of the Bay Trail "spine", to create new Bay Trail "spur" trails, and to provide interpretive signage and guided or self-guided walks to cultural features and interpretive stations at strategic locations along the trail network. These elements are continued in Phase 2 at Eden Landing by incorporating public access features into the design. Interpretive stations would be of varying sizes and scope and may include interactive features that can operate independently or be enhanced with the assistance of docents. Viewing platforms are recommended at vista points with interpretive panels or signage to link the viewer with the site location. Although opportunities for waterfowl hunting and sport fishing would be reduced, other public access and recreation features should provide increases in high-quality, varied aesthetic experiences and encourage recreation for greater numbers and varieties of visitors.

Where levees are improved or proposed, trails are to be integrated with the levee structure in some, but not all areas, without impeding the flood risk management function. Tidal access and recreation areas are designed to withstand periodic inundation, if appropriate, and may be in locations that would have more limited access or use, depending on tidal location and habitat requirements. Research on the effects of recreation on habitat use and quality may be undertaken, and new information will be incorporated into the adaptive management process. Access points are designed to be as barrier-free as possible to provide access for visitors of varying abilities and to comply with the Americans with Disabilities Act (ADA). The designs consider city and county standards and would strive to harmonize with existing facilities.

1.2.6 Adaptive Management

The 2007 Final EIS/R acknowledged that significant uncertainties remain with the project because of its geographic and temporal scale. To address these uncertainties, the SBSP Restoration Project was planned to be carefully implemented in phases, with learning from the results incorporated into management and planning decisions. This adaptive management approach is described in the AMP (Appendix D of the 2007 Final EIS/R), which is a comprehensive plan and program to generate information (applied studies, monitoring, and research) that the PMT can use to make decisions about both current management of the project area and future restoration actions to meet project objectives and avoid harmful impacts to the environment.

Adaptive management is essential to keeping the project on track to meet its objectives, and adaptive management was the primary tool that the 2007 Final EIS/R identified for avoiding significant impacts to the environment. Without adaptive management (and its associated information collection), the PMT would not understand the restored system and would not be able to explain its management actions to the public. Furthermore, responses to unanticipated changes would be based on incomplete scientific understanding and anecdotal observations, which could exacerbate problems. For these reasons, adaptive management is integral to the project, and construction projects are expected to feature applied studies, as called for in the AMP, so that the PMT can learn from project implementation.

Although the preferred alternative in the 2007 Final EIS/R was Programmatic Alternative C, which would restore up to 90 percent of the SBSP Restoration Project's ponds to tidal wetlands in phases, the document also states that if that alternative is not possible without causing undesired environmental impacts, as detected through the adaptive management monitoring and applied studies, then the project would stop converting ponds to tidal wetlands. The actual amount of tidal wetlands restored at the end of the 50-year project horizon could be less than 90 percent.

Adaptive management continues to be a significant part of Eden Landing Phase 2. As described below, data will be collected through the AMP-guided Phase 2 project evaluation and design.

1.2.7 Phase 1 Projects

The 2007 Final EIS/R was not just a planning document but also included project-level analysis of several restoration, enhancement, recreation, and flood protection projects that would help fulfill the SBSP Restoration Project's goals and objectives. The selection of the Phase 1 projects considered a variety of factors. The criteria, as listed in the 2007 Final EIS/R, were available funding, likelihood of success, ease of implementation, visibility and accessibility, opportunities for adaptive management and applied studies, value in building support for the project, and certainty of investment.

Phase 1's restoration actions were successfully completed in December 2014; the last of the public access and recreation features were completed in April 2016. At the end of Phase 1, 1,600 acres of tidal and 1,440 acres of muted tidal habitats were opened to tidal inundation. The tidal areas already show signs of estuarine sedimentation and natural vegetative colonization. These tidal habitats will contribute to the recovery of endangered, threatened, and other special-status species; tidal-marsh-dependent species; and the recovery of South Bay fisheries. Also, 710 acres of managed ponds were constructed at a range of water depths to create a variety of depth, hydrology, and salinity regimes through the use of water control structures, grading, and other means. In addition, approximately 7 miles of new trail were built, providing new recreational opportunities. Islands were constructed in Ponds SF2, A16, and E12 and E13.

1.2.8 Phase 2 Planning Process

In 2010, the PMT began Phase 2 planning with a design charrette. The PMT confirmed that the project objectives had not changed from those stated in the 2007 Final EIS/R. The primary evaluation criteria used were similar to those used in Phase 1 project selection: likelihood of progress toward project objectives, opportunities for resolving adaptive management uncertainties, value in continuing to build support for the project, readiness to proceed, and dependency on precedent actions. The last criterion was added because the PMT recognized that with the completion of Phase 1 projects, subsequent project phases were increasingly likely to require completion of other projects or adaptive management studies before SBSP Restoration Project actions could occur. For example, in some areas, proposed flood risk management projects needed to be completed before ponds were opened to tidal action. In other areas, additional data were needed to assess the long-term response of species occupying a particular pond to changes in the project area before a pond could be opened to the tides. The secondary criteria considered were visibility and accessibility, availability of funding, and balance (meaning both a geographic balance of project locations and a balance between the project goals of restoration, public access, and flood risk management). Again, the balance criterion was added to Phase 2 because as more projects are completed, it will require more of the PMT's attention to maintain the geographical balance and the project purpose balance when selecting projects.

The design charrette created a list of initial options that was presented to the Stakeholder Forum, regulatory agencies, and interested parties in 2010. The report on that Phase 2 charrette is provided here as Appendix A, Phase 2: Preliminary Options for Future Actions. After the initial feedback on the design charrette, the PMT proceeded to hire a professional environmental services firm to undertake the required technical analysis of the project elements. The initial project elements included restoration, public access, and flood risk management actions in all three pond complexes: Alviso, Ravenswood, and Eden Landing.[4]

However, early in the design process the PMT realized that the proposed alternatives for Eden Landing would take longer to develop and analyze and that a separation of Phase 2 into landowner-specific design and environmental compliance processes would be necessary. Phase 2 at Eden Landing was likely to include a large flood risk management component to be developed with technical assistance from the ACFCWCD. Due to the technical complexity of the Eden Landing Phase 2 project and other constraints having to do with land ownership, flood risk management, and funding requirements, the PMT decided to pursue those actions under a separate EIS/R process. However, all three pond complexes were included in the scope of Phase 2 planning.

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) (CEQ 2015) and the *2016 California Environmental Quality Act* (CEQA) *Statute and Guidelines* (hereafter "CEQA Statute and Guidelines") (AEP 2016) for CEQA discuss tiering an environmental analysis from program-level documents to project-level documents on the actual issues for decision. Because the Eden Landing Phase 2 actions were not as well defined as early as those at the Don Edwards San Francisco Bay National Wildlife Refuge, the Eden Landing Phase 2 project components were not ready for decision making. Separating out the Eden Landing Phase 2 actions from those at Alviso and Ravenswood was not "piecemealing" (an unacceptable practice in which projects are analyzed incrementally by parts to make the environmental impacts appear smaller to the overseeing agencies) because the three pond complexes are geographically separated and distinct and do not have substantial interactions between them. Although some wildlife species may make use of two or more of these pond complexes, the pond complexes are otherwise quite independent. Further, actions implemented at the Eden Landing Phase 2 project area would have independent utility.

In sum, while the large-scale plans for Phase 2 at the three pond complexes (Ravenswood, Alviso, and Eden Landing) were developed together, the project-level conceptual alternatives, designs, and the NEPA/CEQA documents are being developed separately. In this Eden Landing Phase 2 EIS/R, the Phase 2 actions at the Don Edwards San Francisco Bay National Wildlife Refuge (Alviso and Ravenswood) are treated as a separate project. Therefore, the potential cumulative impacts from the spatially and temporally distinct parts of the larger SBSP Restoration Project are analyzed in Chapter 4, Cumulative Impacts. A full discussion of the Phase 2 designs and environmental clearance processes at the Refuge ponds is available in the Final EIS/R for those pond complexes. That document is available for download from the project's website at: http://www.southbayrestoration.org/planning/phase2/.

In 2012, Opportunities and Constraints Memoranda were prepared for the suite of initial options envisioned by the PMT and presented to the Stakeholder Forum and interested general public for each pond complex. The Opportunities and Constraints Memoranda re-examined the initial options to see if other innovative restorations, flood risk management, or recreation components could be added to the

[4] The term "pond complex" refers to each of the separate regional groups of ponds. In the SBSP Restoration Project, there are three pond complexes: Eden Landing, Alviso, and Ravenswood.

optional actions. These memoranda were circulated to the PMT, and the results were discussed at the project-wide Stakeholder Forum in November of 2012. The project selection and refinement process has also incorporated additional outreach to other project stakeholders. In 2011, working groups for each of the three pond complexes met to discuss the proposed project actions. Annual meetings of the PMT with teams of scientists conducting monitoring and applied research studies have been held since 2011 to enhance coordination between scientists and the members of the PMT. The proposed Phase 2 actions have been discussed and evaluated by the PMT with input from the Science Team at each meeting to incorporate their feedback and to ensure that Phase 2 was considering opportunities for resolving some of the key project uncertainties identified in the AMP. The proposed options were grouped together as appropriate to make multi-objective project alternatives in each pond complex.

For the Eden Landing pond complex, sets of public access, flood risk management, pond enhancement, and tidal restoration options for the eleven ponds in southern Eden Landing were combined to become the Eden Landing Phase 2 project alternatives. A preliminary report on the process of developing, screening, and combining the various components into alternatives was issued in 2014. That document is provided here as Appendix B, Eden Landing Preliminary Alternatives Analysis Report, which explains in detail the processes by which the alternatives were developed, screened, modified, and ultimately selected for inclusion in this Draft EIS/R.

In 2014 and 2015, these preliminary conceptual alternatives for Phase 2 at Eden Landing were evaluated for engineering feasibility and their ability to meet the project's restoration goals while still providing the necessary flood risk management. These evaluations indicated that different types and combinations of flood risk management would be sufficient to achieve these goals. Revisions to the alternatives were made in early 2016. The result of this process was a set of three Action Alternatives and the required No Action Alternative (also referred to as a "No Project Alternative" under CEQA, but the NEPA term will be used throughout this Draft EIS/R) for each of the pond complexes.

The revised alternatives were presented at a public scoping meeting in June 2016. The public comments from the public scoping meeting are presented as Appendix C, Public Scoping, to this Draft EIS/R.

1.3 Eden Landing Phase 2 Project Location

The SBSP Restoration Project is in South Bay in Northern California (see Figure 2-1). The portions of the SBSP Restoration Project covered in this Draft EIS/R (i.e., Phase 2) consist of the southern half of the ELER, the whole of which is also known as the Eden Landing pond complex (see Figure 2-2). [5]

The Eden Landing pond complex consists of 23 ponds on the shores of the eastern side of the South Bay in Alameda County. The total pond area is 4,600 acres and additional areas of existing marsh comprise the 5,500- acres of the 15,100-acre total acquisition area. The pond complex is bordered on the east by the cities of Hayward, Union City, and Fremont; on the north by State Route (SR) 92; and on the south (across the Alameda Creek Flood Control Channel; ACFCC) by Coyote Hills Regional Park and portions of the Don Edwards San Francisco Bay National Wildlife Refuge. The Phase 1 actions at Eden Landing focused on the northern half of the Reserve and included year-round and seasonal trails, a kayak launch,

[5] As explained above, Phase 2 actions are also being planned for implementation at the Alviso pond complex and the Ravenswood pond complex, which are owned and managed by the USFWS as part of the Don Edwards San Francisco Bay National Wildlife Refuge. Those project actions were analyzed under a separate CEQA/NEPA compliance process, which concluded earlier in 2016.

and a combination of tidal marsh restoration and enhancements to managed ponds to improve habitat for various species. The implementation of these measures was completed in spring of 2016.

The Phase 2 project actions at Eden Landing focus on the ponds in the southern half of the Reserve. The northern and southern halves of the Reserve are separated by the Old Alameda Creek channel. "Southern Eden Landing", which is the Phase 2 project area considered in this EIS/R, generally extends between the ACFCC and Old Alameda Creek channels and from the Bay itself to the inner and easternmost levees or berms that abut the developed communities and other land uses behind them. Some of the recreation and public access features – the trails, in particular – extend beyond this general boundary to connect to the existing trail networks to the north and across the ACFCC to the south.

1.4 NEPA and CEQA Overview

This Draft EIS/R was prepared in accordance with the CEQ regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508) (CEQ 2015) and CEQA (Public Resources Code Section 21000 et seq.) (AEP 2016). The USFWS is the lead agency under NEPA. The CDFW is the lead agency under CEQA.

In the 2007 Final EIS/R for the SBSP Restoration Project (USFWS and CDFG 2007), USACE and the National Aeronautics and Space Administration (NASA) were cooperating agencies [6] under NEPA; however, because NASA's involvement is limited to activities adjacent to the NASA Ames Research Center, that agency has not been involved in Phase 2 planning. Responsible agencies [7] under CEQA include CDFW, the San Francisco Bay Regional Water Quality Control Board (RWQCB), ACFCWCD, SCVWD, the California State Lands Commission, and the San Francisco Bay Conservation and Development Commission (BCDC). The California State Lands Commission is also a trustee agency.

A Regulatory and Trustee Agency Working Group formed for the program provides ongoing support to the regulatory agencies. This group includes staff of federal, state, local, and other regulatory agencies that provide endangered species recovery guidance and permitting authority for the SBSP Restoration Project.

USFWS, SCC, and CDFW jointly manage Phase 2 of the SBSP Restoration Project in collaboration with USGS and SCVWD. Together, these agencies form the SBSP Restoration Project's PMT. EBRPD and ACFCWCD continue to provide technical assistance to the PMT. These agencies may resume active membership in the PMT, or be members of the Stakeholder Forum, in the future.

[6] According to Section 1501.6 of the CEQ Regulations, "Upon request of the lead agency, any other Federal agency which has jurisdiction by law shall be a cooperating agency. In addition, any other Federal agency which has special expertise with respect to any environmental issue, which should be addressed in the statement may be a cooperating agency upon request of the lead agency. An agency may request the lead agency to designate it a cooperating agency."

[7] Responsible agencies is defined in Section 15381 of the CEQA Guidelines as "a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration…[it] includes all public agencies other than the Lead Agency which have discretionary approval power over the project." It includes both state and local agencies that issue permits or provide funding.

1.4.1 Purpose of the EIS/R

This Draft EIS/R is intended to provide the public and the cooperating, responsible, and trustee agencies with information about the potential environmental effects of the SBSP Restoration Project, Phase 2 at Eden Landing. It will be used by the lead agencies when considering approval of the project.

The CEQ regulations for implementing NEPA (40 CFR 1502.1) state that

> "the primary purpose of an [Environmental Impact Statement; EIS] is to serve as an action-forcing device to ensure that the policies and goals defined in [NEPA] are infused into the ongoing programs and actions of the federal government. An EIS shall provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."

CEQA Section 21002.1 states that the purpose of an Environmental Impact Report (EIR) is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.

Both NEPA and CEQA encourage the preparation of combined environmental planning documents.

1.4.2 Joint EIS/R

This document is a joint EIS/R. As noted above, NEPA and CEQA have similar purposes and thus use generally similar concepts and terminologies. In some cases, different terms are used to convey the same meaning. Examples of these differences in terminologies are shown in Table 1-1. This joint EIS/R primarily uses CEQA terminology; however, many NEPA terms are also used.

Table 1-1 Terms Used in NEPA and CEQA Documents

NEPA TERM	CEQA TERM
Action	Project
Lead Agency	Lead Agency
Cooperating Agency	Responsible Agency
Notice of Intent	Notice of Preparation
Environmental Impact Statement	Environmental Impact Report
Record of Decision	Findings
Purpose and Need for Action	Objectives of the Project
Affected Environment	Environmental Setting
Environmental Consequences	Impacts Analysis and Mitigation Measures
Effect	Impact
Historic Property	Historical Resource

1.4.3 Tiering from a Programmatic Joint Document

Both NEPA and CEQA guidelines have generally the same definition for tiering, which refers to the coverage of general matters in a broader EIS or EIR, with subsequent narrower or ultimately site-specific EISs or EIRs incorporating by reference the general discussions and concentrating solely on the issues

specific to the proposed project. NEPA and CEQA encourage agencies to tier the environmental analyses for separate, but related, projects to reduce repetition.

Tiering is appropriate when the sequence of analysis follows from an EIS or EIR prepared for a program to an environmental document for an action or project of lesser scope, as is anticipated for the subsequent phases of the proposed SBSP Restoration Project. The SBSP Restoration Project is being implemented in a series of phases over many years, on the order of several decades. The 2007 Final EIS/R covered the long-term and larger geographic-scale components of the project (i.e., the programmatic components). Therefore, this project-level tiered EIS/R tiers off the 2007 Final EIS/R for the SBSP Restoration Project as a whole. Each subsequent phase will require a separate project-level NEPA/CEQA impact analysis.

NEPA

The CEQ regulations for implementing NEPA address the concept of program- and project-level impact analysis in their definition of "tiering" (43 Federal Register [FR] 56003 Section 1508.28). According to the CEQ regulations, "tiering" refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basin-wide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. Tiering is appropriate when the sequence of statements or analyses is:

> (a) From a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis.
>
> (b) From an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation). Tiering in such cases is appropriate when it helps the lead agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe." (43 FR 56003 Section 1508.28)

CEQA

Similarly, the CEQA Statute and Guidelines discusses tiering (AEP 2016); Section 15385 provides the following definition for tiering:

> "'Tiering' refers to the coverage of general matters in broader EIRs … with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared."

Tiering is appropriate when the sequence of EIRs is:

> (a) From a general plan, policy, or program EIR to a program, plan, or policy EIR of lesser scope or to a site-specific EIR;
>
> (b) From an EIR on a specific action at an early stage to a subsequent EIR or a supplement to an EIR at a later stage. Tiering in such cases is appropriate when it helps the Lead Agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

1.4.4 EIS/R Format

This document is a project-level tiered EIS/R, which examines the environmental impacts of the specifics of the Phase 2 alternatives, including construction and operation. This Draft EIS/R specifically considers whether Phase 2 alternatives would result in new significant impacts not identified in the 2007 Final EIS/R or if the Phase 2 alternatives would cause a substantial increase in the severity of previously identified impacts. This Draft EIS/R also discusses any pertinent new information or changes in circumstances that could result in new significant impacts not identified in the 2007 Final EIS/R or a substantial increase in the severity of previously identified significant impacts.

Previous mitigation measures identified in the 2007 Final EIS/R are described in Section 2.3, General Mitigation Measures from the 2007 Final EIS/R, and would be implemented where relevant to Phase 2 alternatives. These mitigation measures have been revised or augmented as appropriate for Phase 2 actions. This Draft EIS/R also identifies whether new mitigation measures are required.

1.4.5 Environmental Review Process

Scoping

Scoping, or early consultation with persons or organizations concerned with the environmental effects of a project, is required when preparing a joint EIS/R. CEQ regulations for implementing NEPA (40 CFR 1506.6) require that agencies make diligent efforts to involve the public in preparing and implementing their NEPA procedures. Pursuant to NEPA, 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. Pursuant to the CEQA Statute and Guidelines, Section 15082, a Notice of Preparation was distributed to responsible agencies and the public on May 24, 2016. These notices announced a public review period during which comments were received on the appropriate scope of the Draft EIS/R.

A public scoping meeting was held on June 30, 2016, to solicit comments on environmental issues to be addressed in the Draft EIS/R. The scoping comments received during the comment period are presented in Appendix C, Public Scoping.

Draft EIS/R

A Notice of Availability for the Draft EIS/R will be published in the Federal Register, advertisements will be placed in several local newspapers, and the Draft EIS/R will be filed with the United States Environmental Protection Agency (USEPA) for federal review in accordance with 40 CFR parts 1506.9 and 1506.10. The publication of the Notice of Availability also serves to meet CEQA requirements. Also, pursuant to the CEQA Statute and Guidelines, the Draft EIS/R, along with a Notice of Completion, will be filed with the Office of Planning and Research for state agency review. USFWS and CDFW will send notices to all who provided scoping comments, expressed interest in this project, or requested such notice in writing. Copies of the Draft EIS/R will be available for public review on the SBSP Restoration Project website (www.southbayrestoration.org) and during regular office hours at the following locations:

- California Department of Fish and Wildlife, 7329 Silverado Trail, Napa, CA, 94558, (707) 944-5500;
- California State Coastal Conservancy, 1515 Clay Street, 10th Floor, Oakland, CA 94612, (510) 286-1015;

- Don Edwards San Francisco Bay National Wildlife Refuge Visitor Center, 2 Marshlands Road, Fremont, CA 94555, (510) 792-0222;
- Offices of the San Francisco District of the United States Army Corps of Engineers, 1455 Market Street, #16, San Francisco, CA 94103, (415) 503-6804; and
- Administrative offices of the Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118-3686, (408) 265-2600.

The Draft EIS/R will also available for public review at the following libraries:

- California State University Library, 25800 Carlos Bee Blvd., Hayward, CA 94542, (510) 885-3000.
- Fremont Main Library, 2400 Stevenson Blvd., Fremont, CA 94538, (510) 745-1424.
- Hayward Public Library, Central Library, 835 C Street, Hayward, CA 9454, (510) 293-8685
- Union City Library, 34007 Alvarado-Niles Road, Union City, CA 94587, (510) 745-1464
- Natural Resources Library, United States Department of the Interior, 1849 C Street NW, Washington, DC 20240–0001, (202) 208-5815.

This Draft EIS/R is being circulated for a 45-day public and agency review period, beginning with the publication of this document (receipt of the Draft EIS/R from the State Clearinghouse and publication of the Notice of Availability in the Federal Register). Copies of the Draft EIS/R are available either directly or through the locations designated above to applicable local, state, and federal agencies and to interested organizations and individuals wishing to review and comment on the report.

The USFWS and CDFW will consider all comments on the Draft EIS/R provided by the public and federal, state, and local agencies within the public review period. In the Final EIS/R, formal responses to these comments will be presented in an appendix to that document.

Future Steps

Future steps will involve preparing the Final EIS/R, EIR certification, and a Mitigation and Monitoring Program (under CEQA).

Final EIS/R

A Final EIS/R will be prepared that incorporates changes suggested by comments on the Draft EIS/R, as appropriate, and responds to all substantive comments received during the Draft EIS/R review period. The Final EIS/R is required to (1) provide a full and fair discussion of the proposed action's significant environmental impacts; and (2) inform the decision-makers and the public of reasonable measures and alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. A Notice of Availability for the Final EIS/R will be published in the Federal Register and in local newspapers, and the Final EIS/IR will be filed with USEPA pursuant to 40 CFR parts1506.9 and 1506.10. USFWS and CDFW will provide notices of the Final EIS/R to all who commented on the Draft EIS/R and others who have signed up for noticing. Copies of the Final EIS/R will also be available for review on the SBSP Restoration Project website (www.southbayrestoration.org) and at the locations listed above.

CDFW will not proceed with implementing the SBSP Restoration Project, Phase 2 at Eden Landing until certification of the EIR. Under CEQA Guidelines, CDFW will send other agencies responses to the Draft EIS/R public comments at least 10 days prior to certification of the EIR. The comments and responses from the Draft EIS/R will be compiled and included as an appendix to the Final EIS/R.

Record of Decision

The final step in the NEPA process is the preparation of the ROD, which presents a concise summary of the decision made by a federal agency. The ROD can be published immediately after the Final EIS/R wait period has ended. Federal agencies using the Final EIS/R for permitting or funding decisions would prepare a ROD following a minimum 30-day wait period. The ROD will summarize the proposed action and alternatives considered in the EIS/R, identify and discuss factors considered in the federal agency's decision, and state how these considerations entered into the final decision. If appropriate, the ROD will state how Phase 2 of the SBSP Restoration Project will be implemented at Eden Landing and describe any associated mitigation measures. Final signature of the ROD will follow.

EIR Certification

The final step in the CEQA process is certification of the EIR. In accordance with CEQA, CDFW would make one or more written findings for any significant CEQA impacts, accompanied by a brief explanation of the rationale for each finding. The findings constitute a binding set of obligations that will come into effect when the SCC approves the project. When making the findings, the lead agency must adopt a program for reporting on or monitoring the changes that it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects.

When a lead agency decides to approve a project that will result in significant unavoidable impacts (impacts that cannot be avoided or reduced to less-than-significant levels), the lead agency is required to prepare a Statement of Overriding Considerations. The statement must specify the reasons to support the lead agency's actions based on substantial evidence in the record. According to the CEQA Statute and Guidelines, Section 15093,

> "CEQA requires 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. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"

A certified EIR indicates the following:

- The document complies with CEQA;
- The decision-making body of the lead agency reviewed and considered the Final EIR before approving the project; and
- The Final EIR reflects the lead agency's independent judgment and analysis.

Within 5 working days after approval of the project, the CEQA lead agency, the SCC, is required to file a Notice of Determination (NOD) with the Office of Planning and Research and the Alameda County Clerk.

Mitigation Monitoring and Reporting Program (CEQA)

CEQA Section 21081.6(a)(1) requires lead agencies to "adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." The Mitigation Monitoring and Reporting Program (MMRP) required by CEQA need not be included in the Final EIR. However, throughout this EIS/R, measures have been clearly identified to facilitate establishment of an MMRP. Any mitigation measures adopted as a condition of approval of the project will be included in the MMRP for the SBSP Restoration Project, Phase 2 at Eden Landing to verify compliance.

1.5 Project Background

This section discusses the history of the South Bay tidal marsh, salt pond operations, and the Reserve. It also describes the acquisition of the former salt production ponds in 2003 and related restoration efforts in the South Bay.

1.5.1 Historic Tidal Marsh in South Bay

The San Francisco Bay Estuary was formed about 10,000 years ago, as the ocean entered the Coastal Range through the Golden Gate, and seawater began to fill the Bay. As the rise in water slowed approximately 3,000 years ago, sediments began accumulating in the shallows faster than the seas could cover them, allowing vegetation to begin to colonize and persist on the tidal mudflats along the estuarine margins (Cohen 2000; Collins and Grossinger 2004, as cited in the 2007 Final EIS/R). As recently as 150 years ago, the San Francisco Bay landscape was dominated by tidal marsh habitat. The open-water areas of the Bay were very nearly surrounded by broad expanses of tidal mudflats and even broader areas of tidal marsh (Goals Project 1999). However, that landscape began to undergo vast changes beginning with the earliest European settlements (Orlando et al. 2005). It is estimated that since 1800, over 80 percent of the tidal marsh habitat surrounding San Francisco Bay has been lost (Goals Project 1999). This loss equates to a loss of more than 150,000 acres of tidal marsh estuary-wide. In the South Bay, over 90 percent of the historic tidal marsh area has been lost due to conversions to salt ponds, agricultural areas, and urban developments (Foxgrover et al. 2004). Through the SBSP Restoration Project and other similar projects, that trend of loss is being reversed. Approximately 13,000 acres of tidal habitats around the Bay have been restored, and another 35,000 acres, including the acreage of the SBSP Restoration Project, are included in a restoration planning and design process.

1.5.2 Salt Pond Operations

Solar salt production through the conversion of tidal marsh areas to salt ponds began in the mid-1850s (Siegel and Bachand 2002). Early salt production efforts were small operations scattered throughout the Bay, but by 1936, the Leslie Salt Company emerged as the major player in the salt industry, consolidating the smaller companies into one large operation (EDAW 2005, as cited in 2007 Final EIS/R). In 1936, the Leslie Salt Company produced over 300,000 tons of salt annually on approximately 12,500 acres of salt ponds. By 1959, production had increased to 1 million tons of salt on tens of thousands of acres of salt ponds in the North and South Bay. Cargill acquired the Leslie Salt Company in 1978 and continued producing approximately 1 million tons of salt annually.

The solar salt production process takes several years, with the amount of time depending on seasonal variations in temperature, rainfall, and evaporation rates (Siegel and Bachand 2002). The process begins with the intake of Bay water into an "intake" pond, either through pumps or through a gate that opens at high tide. Once in the system, the Bay water is referred to as brine. The brine flows slowly through a series of ponds called "evaporator" or "concentrator" ponds, with salinity increasing from one pond to the next through evaporation.

When the brine becomes fully saturated with salt, the brine is pumped into "pickle" ponds for storage and then into crystallizer beds for eventual harvesting (USFWS and CDFG 2004). Within a crystallizer bed, evaporation continues and a layer of salt accumulates on the bed. This raw salt is mechanically harvested and sent to Cargill's processing plant in Newark for further processing before it is ready for consumers. The remaining solution is an extremely saline liquid product known as bittern, which is commercially sold as a dust palliative and a de-icing product. Although much of the former Cargill salt ponds in the South Bay are targeted for restoration in Phase 2 of the SBSP Restoration Project, Cargill will continue to operate its Newark ponds and Newark and Redwood City processing plants, maintaining a production of approximately 600,000 tons of salt annually (USFWS and CDFG 2004).

1.5.3 History of the Reserve

The California Fish and Game Commission designated the then-CDFG (now CDFW) portion of the SBSP Restoration Project Area as part of the ELER. The original 835-acre property was acquired in 1996 and established thereafter as the Reserve when restoration actions were initiated. Because the property acquired in 2003 from Cargill (see below) was contiguous with the Reserve and management goals were similar, the remaining ponds at the Eden Landing pond complex were added to ELER. According to Fish and Game Code Title 14, Section 630, "Ecological Reserves are established to provide protection for rare, threatened or endangered native plants, wildlife, aquatic organisms and specialized terrestrial or aquatic habitat types. Public entry and use shall be compatible with the primary purposes of such reserves..." Public use may include hiking on established designated trails, hunting and fishing; other use allowed within CDFW lands includes scientific studies.

1.5.4 2003 Salt Ponds Acquisition

In October 2000, Cargill proposed to consolidate salt pond operations and transfer the land and salt production rights on 61 percent of its South Bay operation area. Negotiations headed by Senator Dianne Feinstein led to the signing of a Framework Agreement, which laid out the accord for the public acquisition of the 15,100 acres of South Bay salt ponds (including the acquisition of Cargill's salt-making rights retained on some ponds in 1979) and 1,400 additional acres of crystallizer ponds along the Napa River in the North Bay. The Framework Agreement was signed in May 2002 by the California Resources Agency, Wildlife Conservation Board, CDFG (now CDFW), the SCC, USFWS, Cargill, and Senator Feinstein. Additional negotiations were completed in December 2002 regarding the Phase-out Agreement, which lays out specific details regarding Cargill's responsibilities for halting salt production in the ponds in question.

The acquisition and restoration of the salt ponds has long been a goal of legislators, resource agencies, and non-governmental organizations (NGOs) working to protect San Francisco Bay. Supporters and signatories of the Framework Agreement included the San Francisco Bay Joint Venture, Save the Bay, National Audubon Society, Citizens Committee to Complete the Refuge, and many other agencies, organizations, and individuals.

The State of California approved the transfer of the salt ponds from Cargill on February 11, 2003. CDFW is now the landowner and land manager of the portions of the SBSP Restoration Project within the ELER.

1.5.5 Restoration in South San Francisco Bay

Phase 2 of the SBSP Restoration Project is a direct outgrowth of the acquisition of salt pond complexes (either in fee ownership or the salt-making rights) from Cargill in 2003 and the continued implementation of the larger SBSP Restoration Project laid out in the 2007 Final EIS/R. The project has focused on how best to manage and restore these lands. There are also existing habitat areas just outside the SBSP Restoration Project boundary that present opportunities to work with the owners of these areas to collaborate on restoration or environmental quality efforts.

One such opportunity involves Cargill's remaining inholdings within or adjacent to Eden Landing. These include Cargill Pond 3C and its levees, as well as Turk Island, "Cal Hill" and the levees that connect to these hills. If Cargill were to sell or donate either of these properties to the SBSP Restoration Project, several recreation and public access opportunities could be developed and included into the project. A similar opportunity exists with some of the Alameda County-owned land near the eastern end of Eden Landing. One of the Phase 2 alternatives for Eden includes recreation and public access components that could be incorporated only if the SBSP Restoration Project acquired them or easements to them from Alameda County. Finally, the "J" ponds owned by ACFCWCD (within the Eden Landing pond complex between Ponds E4, E1C and E6C) would need to be included in some of the restoration and flood risk management actions considered in this document. More detail on these options and the alternatives that result from their inclusion are presented in Chapters 2 and 3 of this Draft EIS/R.

1.6 Intended Uses of the EIS/R and Required Approvals

The lead agencies will use this Draft EIS/R when considering approval of the Phase 2 actions under the SBSP Restoration Project. Responsible agencies that have review and permit authority over the project will also use the Final EIS/R.

Agencies with responsibility for permit approval of certain project elements **may** include the following:

- USACE, under Section 404 of the Clean Water Act;
- USFWS and the National Marine Fisheries Service (NMFS), for Section 7 consultation pursuant to the federal Endangered Species Act regarding "take" of federally listed threatened or endangered species;
- NMFS, for Essential Fish Habitat consultation under the Magnuson-Stevens Fishery Conservation and Management Act;
- The San Francisco Bay RWQCB, for water quality certification under Section 401 of the Clean Water Act;
- The San Francisco Bay RWQCB, for a National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity requiring preparation of a Storm Water Pollution Prevention Plan (SWPPP);

- BCDC, for permit and determination of conformity with the California Coastal Act, the McAteer-Petris Act, the Coastal Zone Management Act of 1972, and the San Francisco Bay Plan;
- The California State Lands Commission, for leases within its jurisdiction, including the submerged lands of the Bay, submerged lands of the sloughs within the SBSP Restoration Project area, and several small areas of state-owned land within the SBSP Restoration Project area;
- Bay Area Air Quality Management District (BAAQMD), may require permits to operate the proposed portable pumps;
- Cities with jurisdiction over the portions of the project area or access routes to it; and
- An easement from Pacific Gas and Electric Company (PG&E).

Other required approvals include easements or modifications to existing easements from nearby landowners for proposed levees that provide flood risk management and trail access.

1.7 Documents Incorporated By Reference

An EIS/R can incorporate by reference all or portions of another document that are a matter of public record or are generally available to the public (CEQ regulations for implementing NEPA [40 CFR 1502.21] and the CEQA Statute and Guidelines, Section 15150). Where all or part of another document is incorporated by reference, it has to be made available for inspection at a public place. Also, the document that is incorporated by reference must be briefly summarized or described in the EIS/R, and the relationship of the referenced document and the EIS/R shall be described.

“Incorporation by reference is most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of the problem at hand” (CEQA Statute and Guidelines Section 15150(f)). This statement clearly distinguishes those documents that are incorporated by reference from those that are included as appendices. Materials included as appendices to an EIS/R contribute substantively to the impacts analysis (such as modeling results).

The following documents below are incorporated by reference in this Draft EIS/R.

- SBSP Initial Stewardship Plan and Initial Stewardship Plan EIR/EIS (SCH# 2003032079);
- SBSP Restoration Project Phase 2, Eden Landing Preliminary Alternatives Analysis Report;
- SBSP Restoration Project Phase 2 Opportunities and Constraints for Eden Landing Pond Complex;
- SBSP Restoration Project Hydrodynamics and Sediment Dynamics Existing Conditions Report;
- SBSP Restoration Project Levee Assessment Report;
- SBSP Restoration Project Flood Management and Infrastructure Existing Conditions Report;
- SBSP Restoration Project Water and Sediment Quality Existing Conditions Report;
- SBSP Restoration Project Biology and Habitats Existing Conditions Report;

- SBSP Restoration Project Public Access and Recreation Existing Conditions Report; and
- SBSP Restoration Project Final Cultural Resources Assessment Strategy Memorandum and Historic Context Report.

All of these documents are available for review on the SBSP Restoration Project's official website (www.southbayrestoration.org) and at the SCC's office at 1515 Clay Street, 10th Floor, Oakland, CA 94612. The documents incorporated by reference are described in various chapters and sections of this EIS/R.

1.8 2007 Final EIS/R

The 2007 Final EIS/R evaluated a No Action Alternative and two Action Alternatives for restoring or enhancing the former salt ponds for the SBSP Restoration Project. The two Action Alternatives established a set of "bookends" for the long-term project goals. Under these bookends, Programmatic Alternative B would work toward a gradual restoration to tidal marsh of 50 percent of the total acreage in the area of the SBSP Restoration Project. The other 50 percent would be maintained or improved to enhanced managed ponds. Programmatic Alternative C would continue past the 50 percent tidal marsh restoration goal and end at 90 percent of the total area of the SBSP Restoration area being restored to tidal marsh, leaving only 10 percent in enhanced managed ponds. Alternative A is the No Action Alternative, under which no actions would have been taken.

The 2007 Final EIS/R evaluated the environmental impacts of these alternatives and found that Programmatic Alternative A would not meet the project purpose and need to restore tidal marshes in the South Bay. The 2007 Final EIS/R selected Programmatic Alternative C at that time because the SBSP Restoration Project would need many years and multiple project-level phases to even approach the 50 percent tidal marsh goal of Programmatic Alternative B. As that level of tidal marsh restoration was being approached, the PMT and other stakeholders could use the findings of the AMP and the directed scientific research questions to determine whether to stop at the 50 percent tidal marsh goal or continue toward the 90 percent goal or to some other percentage in between those bookends.

As stated in the ROD, Programmatic Alternative C was chosen as the long-term goal. However, through application of the AMP, the project restoration activities could stop before reaching the full goal of 90 percent tidal marsh restoration for that alternative. The Phase 2 project alternatives evaluated in this Draft EIS/R would advance the program-level goals of both Programmatic Alternatives B and C. Completing Phase 2 would move the larger project closer to the 50 percent tidal marsh/50 percent managed ponds goal of Alternative B, but it would not reach it. Thus, completing Phase 2 would still allow the project to cease restoration activities at some point between the bookends of Programmatic Alternatives B and C.

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