



RECORD OF DECISION

As the District Engineer for the Los Angeles District, I have reviewed the Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR) for the Salton Sea Species Conservation Habitat Project (Corps File No. SPL-2010-00142-LLC). The FEIS/EIR, prepared in compliance with the Council on Environmental Quality's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* and U.S. Army Corps of Engineers (USACE or Corps) regulations at 33 C.F.R. Parts 320-332, assesses the impacts of implementing the Proposed Action on the biological, physical, and socioeconomic environment. The FEIS/EIR is hereby incorporated by reference. The Corps will proceed as indicated herein.

I. INTRODUCTION

A. Location: The Proposed Action is located at the southern end of the Salton Sea (Sea), near the mouth of the New River, in Imperial County, California.

B. Background, General Description, and Public Involvement

1. A complete application for a Department of the Army (DA) Standard Individual Permit (SIP) for the Proposed Action was submitted by the California Natural Resources Agency (CNRA) on 31 January 2012 to discharge dredged or fill material into waters of the United States (U.S.) pursuant to Section 404 of the Clean Water Act to facilitate construction of approximately 3,770 acres of independent and cascading pond units at the New River using pumped water diversions from the river and the Salton Sea to support fish and wildlife species dependent on the Sea. The Proposed Action comprises approximately 4,065 acres, which includes 3,770 acres of pond construction area and 295 acres of potential staging areas. The Proposed Action would permanently impact (resulting in a loss) up to 90.1 acres, permanently impact (resulting in a habitat type conversion but not a permanent loss) up to 2,402.1 acres, and temporarily impact up to 209.7 acres of waters of the U.S. Compared to existing conditions, the Proposed Action would result in a net increase in the extent of waters of the U.S. by up to 793 acres. This net increase is due to the restoration of waters of the U.S. that was previously lost by the receding Sea between elevations -228 feet mean sea level (msl) and -231 feet msl.

2. The Corps and the CNRA prepared a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) pursuant to NEPA and the California Environmental Quality Act (CEQA). The EIS/EIR evaluated and disclosed the direct, indirect/secondary, and cumulative environmental impacts anticipated from the Proposed Action and alternatives. The EIS/EIR is a project-level document that addresses a number of interrelated actions over a specific geographic area that (a) would occur in phases, and (b) would be implemented under the same authorizing statutory or regulatory authorities.

3. To facilitate public involvement in the NEPA process, the 30-day comment period for scoping for the EIS began on 23 June 2010 with publication of a Notice of Intent

to Prepare an EIS in the Federal Register and ended on 4 July 2010. The Corps issued a public notice for scoping on 21 June 2010. The Corps and California Department of Fish and Wildlife (DFW), as the delegated project lead, jointly conducted a total of four public scoping meetings that were held on 7 and 8 July 2010 at Palm Desert, Thermal, Calipatria, and Brawley. The U.S. Bureau of Reclamation is a cooperating agency for the preparation of the EIS because it has special expertise related to restoration planning, as well as jurisdiction by law over lands located near the Project area. The U.S. Fish and Wildlife Service (USFWS) also is a cooperating agency because portions of the ponds at the New River sites would be located on land that is part of Sonny Bono Salton Sea National Wildlife Refuge managed by the USFWS. Lastly, the U.S. Bureau of Land Management is a cooperating agency because it manages land within the Salton Sea that may be needed for Project facilities, access, or construction materials. On 19 August 2011, the Corps issued a Draft Environmental Impact Statement (DEIS) for a 60-day review period. A Notice of Availability was published in the Federal Register on 19 August 2011 and a public notice for a Section 404 permit application was issued on the same day. Approximately 32 hard copies of the DEIS/EIR were distributed to agencies, organizations, and individuals and were made available at seven public libraries in Brawley, Calipatria, Coachella, Imperial, El Centro, Mecca, and University of California of Riverside. In addition, the document was also posted on the California Department of Water Resources' (DWR's) website: <http://www.water.ca.gov/saltonsea/>. The Corps, DWR, and DFW jointly conducted four public hearings held on 14 September 2011 in both Calipatria and Brawley and on 15 September 2011 in Palm Desert. During the DEIS public review period, 55 comments were received. The public comment period for the DEIS/EIR ended on 17 October 2011. All comments received were considered in preparing the FEIS/EIR. The Corps issued an FEIS on 26 July 2013. A Notice of Availability was published in the Federal Register on 26 July 2013. A public notice announcing the availability of the FEIS was issued on the same day. Approximately 10 hard copies of the FEIS/EIR were distributed to agencies, organizations, and individuals and were made available at seven public libraries in Brawley, Calipatria, Coachella, Imperial, El Centro, Mecca, and University of California of Riverside. In addition, the document was also posted on the DWR's website: <http://www.water.ca.gov/saltonsea/>. Responses to the comments received during the review period are provided in **Appendix A** to this Record of Decision (ROD). CNRA certified the EIR on 5 August 2013.

C. Purpose and Need

1. The purpose of the Proposed Action is to develop a range of aquatic habitats that will support fish and wildlife species dependent on the Sea.
2. The Sea currently supports a wide variety of bird species and a limited aquatic community. Over many decades, the components of the aquatic-dependent community have shifted in response to receding water levels and increasing salinity. The Sea is currently a hypersaline ecosystem (about 51 parts per thousand [ppt]). Without restoration, declining inflows in future years will result in the Sea's ecosystem collapse due to increasing salinity (expected to exceed 60 ppt by 2018, which is too saline to support fish) and other water quality stresses, such as temperature extremes, eutrophication, and related anoxia due to algal productivity. The most serious and immediate threat to the Sea ecosystem is the loss of fishery resources that support piscivorous birds. The birds that feed on invertebrates have

more options and resources, because the invertebrate fauna has a wider range of salinity tolerances. Piscivorous birds, on the other hand, are at risk of decline. To address this immediate need, the California Legislature appropriated funds for the purpose of implementing “conservation measures necessary to protect the fish and wildlife species dependent on the Salton Sea, including adaptive management measurements” (California Fish and Game Code Section 2932(b)).

II. DECISION

The Least Environmentally Damaging Practicable Alternative (LEDPA) is Alternative 3- New River, Pumped Diversion + Cascading Pond, as identified and evaluated in the FEIS/EIR and Final Section 404(b)(1) Alternatives Analysis (**Appendix B**). The LEDPA includes the following activities subject to regulation under section 404 of the CWA: construction of approximately 3,770 acres of independent and cascading pond units at the New River; pumped water diversions from the river and the Salton Sea; construction of a sedimentation basin; use of up to 295 acres of staging areas; and operation and maintenance of these facilities.

III. ALTERNATIVES CONSIDERED

As part of the preparation of the DEIS/EIR, the Corps, DWR, and DFW evaluated alternative project sites to determine if there were alternative sites available on which the Proposed Action could be constructed that would involve fewer impacts on aquatic resources than the Proposed Action and would not have concomitant adverse impacts on other sensitive resources such as listed species. Sites were evaluated using initial screening criteria including availability of land and adequate water supply to support a large restoration project. Initially, three generalized locations identified were located near the mouths of the New, Alamo, and Whitewater rivers.

Through the screening process the Whitewater River site was eliminated from further consideration. The Whitewater River flows into the Sea at the northwestern end of the Sea. At this location, approximately 900 acres of pond area could potentially be developed. These lands are not directly adjacent to the river, but are slightly offset to the northeast (563 acres) and southwest (378 acres) of the river. The sites have an elevation between -228 and -234 feet msl. The land is owned by Imperial Irrigation District (IID), U.S. Department of Interior, the Torres Martinez Desert Cahuilla Indian Tribe (Torres Martinez Tribe), and various private entities. The Whitewater River is designated by the State Water Resources Control Board as a fully appropriated stream from the Sea to the headwaters; thus, no water would be available for the project. Due to existing and projected demands on the Whitewater River by the Coachella Valley Water District and the Torres Martinez Tribe, there is not adequate water available to support a large restoration project. With regard to the available land criterion, IID’s ownership is in a checkerboard pattern, mixed with lands owned by the Torres Martinez Tribe. Tribal land would be required to convey water to ponds at the Whitewater River site. Considering the Tribe has not been willing to participate in the project, acquiring Torres Martinez tribal lands for the proposed project is not likely. Consequently, the whitewater river site alternative was eliminated from further consideration.

Alternatives analyzed in the FEIS/EIR included the No Action/No Federal Action Alternative, three action alternatives in the New River, including the Proposed Action (Alternatives 1-3), and three action alternatives in the Alamo River (Alternatives 4-6). All of the action alternatives include independent ponds; thus, the name of the alternative reflects those ponds that also include cascading ponds. The alternatives are summarized below and discussed in detail in the FEIS/EIR.

No Action/No Federal Action Alternative. Under the No Action/No Federal Action Alternative, the Corps would not issue a permit for the Proposed Action, and no components of the Proposed Action would be constructed. The No Action/No Federal Action Alternative is intended to reflect existing conditions plus changes that are reasonably expected to occur in the foreseeable future if the Proposed Action is not implemented. An alternative could not be constructed without a Federal action because any Proposed Action alternative would require diversion of flows from a riverine source, and such a diversion would require discharges of dredged or fill material into the Corps' geographic regulatory jurisdictional limits of the riverine system (e.g., New River). Furthermore, although there are non-jurisdictional areas of exposed playa within the Sea, jurisdictional wetlands still occur in and around these non-jurisdictional exposed playas, and it would be infeasible to design a project completely within the non-jurisdictional areas only. Thus, the No Federal Action Alternative is the same as the No Action Alternative.

Under the No Action/No Federal Action Alternative, the Sea would continue to recede as water levels decline over the years. Reduced inflows in future years would result in the Sea's ecosystem collapse due to increasing salinity (expected to exceed 60 ppt by 2018, which is too saline to support fish) and other water quality stresses, such as temperature extremes, eutrophication (process by which a water body acquires a high concentration of nutrients [e.g., nitrates and phosphates]), and related anoxia (decrease in oxygen) and algal productivity.

New River, Gravity Diversion + Cascading Ponds (Alternative 1). This alternative would occur on both sides of the New River and would construct independent and cascading pond units totaling approximately 3,130 acres. A gravity diversion would be used to provide river water to the ponds and would be located approximately 2 miles upstream of the ponds proposed in Alternative 1. Alternative 1 would use the large bay to the northeast of the New River (East New) and the shoreline to the southwest (West New).

The ponds would be constructed with the necessary infrastructure to allow for the management of water into and through the Project area. The newly created habitat would be contained within low-height berms. The water supply for the ponds would be a combination of brackish river water and saline water from the Sea, blended to maintain an appropriate salinity range for target biological benefits. This alternative would restore shallow water habitat lost due to the Sea's ever-increasing salinity and reduced area as the Sea recedes. The ponds would use available land at elevations less than -228 feet msl (the Sea level in June 2005). Alternative 1 would consist of the following facilities:

- A lateral structure on the New River to allow gravity flow of brackish water via pipelines to the ponds;

- Saline water pump on a platform in the Sea and associated pressurized pipeline;
- Sedimentation basin (at upstream location) adjacent to the river;
- Independent and cascading pond units;
- Borrow material from pond excavations including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

New River, Pumped Diversion (Alternative 2). This alternative would be located on both sides of the New River and would construct independent pond units totaling approximately 2,670 acres. The river diversion would be a pumped diversion located at the Project site. Alternative 2 would use the large bay to the northeast of the New River (East New), the shoreline to the southwest (West New), and the shoreline continuing west (Far West New). The ponds would be constructed in the same manner as described under Alternative 1. Alternative 2 would consist of the following facilities:

- A low-lift pump station on the New River and metal bridge structure to support diversion pipes;
- Saline water pump on a structure in the Sea with associated pressurized pipeline;
- Two sedimentation basins adjacent to the river;
- Several independent pond units;
- Borrow material from pond excavations, including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

New River, Pumped Diversion + Cascading Ponds (Alternative 3, Proposed Action). This alternative would be located on both sides of the New River and would construct independent and cascading pond units totaling approximately 3,770 acres. It would use the large bay to the northeast of the New River (East New), the shoreline to the southwest (West New), and the shoreline continuing to the west (Far West New). Cascading ponds would be attached to each of the pond units. The ponds would be constructed in the same manner as described under Alternative 1. Alternative 3 would consist of the following facilities:

- A low-lift pump station on the New River;
- Saline water pump on a structure in the Salton Sea with associated pressurized pipeline;
- Two sedimentation basins adjacent to the river;
- Several independent pond units with interior berms to form individual ponds and cascading ponds that would drain to the Sea;

- Borrow material from pond excavations including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

Alamo River, Gravity Diversion + Cascading Pond (Alternative 4). This alternative would be located at the northern side of the Alamo River on Morton Bay and would construct independent ponds and a cascading pond unit totaling approximately 2,290 acres. The river diversion would be a gravity diversion located approximately 3.5 miles upstream of the Proposed Action ponds to divert water into the sedimentation basin. Alternative 4 would consist of the following facilities:

- A gravity structure on the Alamo River;
- Saline water pump at Red Hill with associated pipeline;
- Sedimentation basin (at upstream location) adjacent to the river;
- Independent and cascading pond units at Morton Bay defined by exterior and interior berms with control structures to regulate water flows;
- Borrow material from pond excavations, including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

Alamo River, Pumped Diversion (Alternative 5). This alternative would be located at the northern side of the Alamo River on Morton Bay and would construct independent pond units totaling approximately 2,080 acres. The river diversion would be a low-lift pump diversion located at the Proposed Action pond site. Alternative 5 would use Morton Bay to the northeast of the Alamo River. This alternative would include independent pond units only. Alternative 5 would consist of the following facilities:

- A low-lift pump station on the Alamo River;
- Saline water pump in the Sea with associated pipeline;
- Sedimentation basin adjacent to the river;
- Independent pond units at Morton Bay and Wister Beach with an interior berm to form individual ponds within the Morton Bay independent pond unit;
- Borrow material from pond excavations including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

Alamo River, Pumped Diversion + Cascading Ponds (Alternative 6). This alternative would be located at the northern side of the Alamo River on Morton Bay and would construct

independent and cascading pond units totaling approximately 2,940 acres. Alternative 6 would consist of the following facilities:

- A low-lift pump station on the Alamo River;
- Saline water pump at Morton Bay with associated pipeline;
- Sedimentation basin adjacent to the river;
- Independent pond units at Morton Bay and Wister Beach with a cascading pond in each and an interior berm to form individual ponds within the Morton Bay independent pond unit;
- Borrow material from pond excavations including borrow swales to create deeper channels;
- An interception ditch to direct flows from agricultural drains; and
- A tailwater return system.

IV. EVALUATION OF ALTERNATIVES

The direct, indirect, and cumulative impacts associated with the Proposed Action and the other alternatives are included in Chapter 3 of the EIS/EIR, and a comparison of the alternatives is included in Chapter 7. The evaluation of alternatives assessed in the EIS/EIR is summarized below. Additionally, Table 7-1 of the EIS/EIR summarizes the impacts of each action alternative by impact significance.

Table 7-1 Summary of Impacts, by Resource, of Each Project Alternative						
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Aesthetics	L	L	L	L	L	L
Agricultural Resources	S	O	O	S	O	O
Air Quality	U	U	U	U ^a	U ^a	U ^a
Biological Resources	S	S	S	S	S	S
Cultural Resources	S	S	S	S	S	S
Energy Consumption	L	L	L	L	L	L
Environmental Justice	U	U	U	U	U	U
Geology and Soils	L	L	L	L	L	L
Greenhouse Gas Emissions	L	L	L	L	L	L
Hazards and Hazardous Materials	L	L	L	L	L	L
Hydrology and Water Quality	L	L	L	L	L	L
Indian Trust Assets	O	O	O	O	O	O
Land Use	L	L	L	L	L	L

Table 7-1 Summary of Impacts, by Resource, of Each Project Alternative						
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Noise	L	L	L	S	S	S
Paleontological Resources	S	S	S	S	S	S
Population and Housing	L	L	L	L	L	L
Public Services	L	L	L	L	L	L
Recreation	B	B	B	B	B	B
Socioeconomics	L	L	L	L	L	L
Transportation	L	L	L	L	L	L
Utilities and Service Systems	L	L	L	L	L	L
Notes: a.* Alternatives 4, 5, 6 would result in a significant unavoidable impact from nitrogen oxides emissions during construction, as would Alternatives 1, 2, and 3; but unlike the latter alternatives, they would not result in a significant impact from fugitive dust emissions. O = No Impact L = Less-than-Significant Impact S = Significant Impact, but Mitigable to Less than Significant U = Significant Unavoidable Impact B = Beneficial Impact						

No Action/No Federal Action Alternative: For resources such as biological resources and recreation, the benefits of the Project alternatives would be greater when compared to this alternative because the increasing salinity and decreasing water surface elevation of the Sea will result in the collapse of the Sea’s ecosystem, and the Project alternatives would help offset some of the impacts from this occurrence. The beneficial impacts of the Project alternatives on aesthetic resources also would be greater in comparison to the No Action Alternative. In no case, however, did the comparison of impacts between the existing conditions and the No Action Alternative result in a change in the significance of the impact.

Alternative 1: This alternative would have unavoidable significant impacts on air quality due to incremental contributions to violations of Federal and state O₃, PM₁₀, and PM_{2.5} standards and exceed Imperial County Air Pollution Control District’s NO_x and PM₁₀ thresholds during construction (but not during operations), even with available mitigation. These emissions would have a disproportionate impact on minority and low-income populations. All other impacts would be significant but mitigable, less-than-significant, or beneficial (recreation).

Alternative 2: Impact levels would be the same as for Alternative 1, except that no impacts would occur on agricultural resources.

Alternative 3: Impact levels would be the same as for Alternative 2.

Alternative 4: Impact levels would be the same as for Alternative 1, except no significant fugitive dust impacts would occur under Air Quality (but oxides of nitrogen impacts would remain unavoidable), and noise impacts would be significant but mitigable because dredging could extend beyond the hours typically allowed by Imperial County and the Imperial County noise thresholds could be exceeded during installation of the seawater pipeline and associated pump, and operation of the seawater pump (at Red Hill Park).

Alternative 5: Impact levels would be the same as for Alternative 4, except that no impacts would occur on agricultural resources.

Alternative 6: Impact levels would be the same as for Alternative 5.

V. IDENTIFICATION OF THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Environmentally Preferable Alternative is that alternative that would most closely fulfill the national environmental policy found in section 101 of NEPA. Essentially, it is the alternative that would cause the least damage to the biological and physical environment; it also means the alternative that would best protect, preserve, and enhance historic, cultural, and natural resources.

The No Action Alternative is not considered environmentally preferable. As discussed in Chapter 1 of the EIS/EIR, declining inflows in future years from various factors will result in collapse of the Sea's ecosystem due to increasing salinity and other water quality issues, such as temperature, eutrophication, and related anoxia and algal productivity. The Project alternatives would restore a portion of the habitat that will be lost under the No Action Alternative and are considered preferable.

Of the Project alternatives, those that would require gravity diversion of water from the New or Alamo rivers (Alternatives 1 and 4, respectively) are not considered environmentally preferable because construction of the sedimentation basin would result in the permanent loss of important farmland, which is a less than significant impact and the potential conversion of land under Williamson Act contracts to nonagricultural use, a significant impact. These impacts would not occur under the alternatives requiring pumped diversion (Alternatives 2, 3, 5, and 6) because the sedimentation basins would be located within the footprint of the species conservation ponds, which would not be constructed on farmland.

Of Alternatives 2, 3, 5, and 6, those located at the Alamo River (Alternatives 5 and 6) are not considered environmentally preferable for a variety of reasons. Alamo River water includes higher levels of selenium than that of the New River. Although impacts from selenium would be less than significant, selenium would have adverse effects on wildlife, and lower levels would be preferable within the Species Conservation Habitat ponds. Similarly, the Alamo River area is more geologically active than the New River area (mud pots are present adjacent to and within the Project area east of the Alamo River in Morton Bay), which could lead to an increased risk of berm failure. Although this impact is not considered significant, it would not be desirable and would result in temporary, but adverse impacts on species conservation habitat pond operation. The Alamo River area also is in a Known Geothermal

Resource Area and known geothermal resources diminish west of the New River. Although the Project would not preclude geothermal development, the New River area is considered preferable because the potential for conflicts with geothermal development companies would be minimized. Alternatives 2 and 3 would be located at the New River and would restore 2,670 and 3,770 acres of habitat, respectively. Alternative 3 would cause somewhat greater impacts during construction (and indirect air emissions during operations), but it would have greater long-term benefits because more habitat would be restored. The long-term benefits would offset the short-term, incremental increase in construction impacts (and incremental increases in power demand), and thus, Alternative 3 is considered the environmentally preferable alternative.

VI. MEASURES TO AVOID AND MINIMIZE ENVIRONMENTAL HARM

The Proposed Action's purpose is to restore aquatic habitat along the Sea; therefore, the majority of impacts on waters of the U.S., while permanent (because the Proposed Action would alter the elevation and contours), would not result in a loss of waters of the U.S. The pond sites would be converted from one aquatic resource habitat type to another. In addition, the small amount (90.1 acres) of permanent impacts that would result in a loss of waters of the U.S. under Alternative 3 would be from the creation of berms, diversion structures, and sedimentation basins, which are essential components of the Proposed Action and are required to create the restored areas. The Proposed Action, when completed, would restore a total of 883.4 acres of waters of the U.S. that currently are non-jurisdictional upland playa, resulting in an overall net gain of 793.3 acres (restored waters of the U.S. minus loss of waters due to Project implementation). Due to the beneficial nature of the Proposed Action for water quality, wildlife habitat, and special-status wildlife species, the Proposed Action is considered to be self-mitigating, and therefore, no Project-specific compensatory mitigation for impacts on jurisdictional wetlands and waters of the U.S. is required. However, the Corps would review and approve the adaptive management plan that is being developed with this Proposed Action and require monitoring reports to be available for Corps review upon request to ensure that habitat restoration is successful and functioning as intended.

The EIS/EIR for the Proposed Action includes MM BIO-5, which would offset impacts resulting from the footprint of pond infrastructure facilities, as well as impacts from construction activities from the use of temporary components such as staging areas and crossings. MM BIO-5 requires preparation of a Habitat Protection, Mitigation, and Restoration Program. The program would detail measures to avoid impacts/disturbance of habitat, specifically during the bird breeding season; quantify the maximum area of each plant community that may be temporarily or permanently removed during construction; and provide methods for restoration of those plant communities including on- or off-site restoration locations, use of native seed sources, and details for planting, irrigation, maintenance, and monitoring, with ultimate success determined through defined performance criteria.

The applicant has prepared a Final Temporary Impacts Restoration Plan for the Salton Sea Species Conservation Habitat Project, Imperial County, California, October 2013 (TIRP), which quantifies and describes the mitigation measures and Corps requirements. The TIRP is focused primarily on providing guidance for replacement of wildlife habitat that would be

affected by non-pond features of the Proposed Action. Impacts would be restored at a minimum of 1:1 ratio at impact sites for both native and non-native plant communities. The focus of the restoration effort would be to restore habitat for wildlife in accordance with MM BIO-5. The TIRP provides an implementation plan to ensure the successful restoration of wetlands, including restoration of all areas of temporary impact. The TIRP identifies roles and responsibilities of various entities involved in the restoration; a description of restoration goals and objectives; identification of suitable restoration sites; a restoration work plan with recommended methodologies for site preparation, seeding/planting, irrigation, etc.; a maintenance plan; specific monitoring and reporting requirements, including site performance standards; and a description of long-term management of the restoration sites.

Feasible mitigation measures would reduce potential impacts of other projects, and implementation of MM BIO-1, a desert pupfish relocation plan; MM BIO-2, preconstruction and maintenance surveys; MM BIO-3, noise measurements and as-needed noise attenuation features; and MM BIO-4, a habitat mitigation and restoration plan, would reduce the Proposed Action's contribution to cumulative impacts on biological resources to less than significant.

The Proposed Action also includes provision for an Operations Plan and an Adaptive Management and Monitoring Plan. The EIS/EIR includes initial framework drafts of these documents as Appendix D (Project Operations) and Appendix E (Monitoring and Adaptive Management Framework). These documents would govern operations of the Proposed Action and the collection of monitoring data to assess the effectiveness of the restoration. These plans will be drafted and finalized prior to initiation of impacts to waters of the U.S.

VII. DETERMINATIONS AND FINDINGS

A. Status of Other Authorizations and Legal Requirements

1. Section 401 of the Clean Water Act: Before proffering a permit authorizing the LEDPA, the applicant will need to obtain a 401 water quality certification. The Corps would ensure that the Proposed Action is in compliance with the Section 401 of the Clean Water Act. Pursuant to 33 U.S.C. 1341(d), special conditions of the Section 401 Water Quality Certification would become special conditions of the Department of the Army permit.

2. Endangered Species Act of 1973: Documented presence and/or suitable habitat and/or designated critical habitat, as appropriate, for the following Federally listed species are within or near the footprint of the Proposed Action: desert pupfish (*Cyprinodon macularius*), Yuma clapper rail (*Rallus longirostris yumanensis*), southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*). The Corps initiated formal consultation with the USFWS under Section 7 of the Endangered Species Act on 7 May 2012, which was facilitated by development of a biological assessment that formed the basis of the subsequent USFWS biological opinion.

The USFWS completed the biological opinion for the Corps' federal action on 5 March 2013, which concluded that the Proposed Action is not likely to jeopardize the continued

existence of the desert pupfish and is not likely to result in the destruction or adverse modification of desert pupfish designated critical habitat. The biological opinion also concurred with the Corps' determination that the Proposed Action is not likely to adversely affect Yuma clapper rail, least Bell's vireo, or southwestern willow flycatcher. Designated critical habitat for these species does not occur in the Project area; therefore, no effects on designated critical habitat are anticipated.

3. Fish and Wildlife Coordination Act (FWCA): The FWCA provides the basic authority for the USFWS's involvement in evaluating impacts on fish and wildlife from proposed water resource development projects. The USFWS is a cooperating agency for the Proposed Action and has provided input regarding species that are present and project impacts as well as was consulted pursuant to Section 7 of the Endangered Species Act. In addition, DFW is one of the agencies leading preparation of the EIS/EIR on behalf of CNRA and, thus, has overseen the analysis of impacts on fish and wildlife. Moreover, the fundamental purpose of the Proposed Action is to provide habitat for species that are dependent on the Salton Sea; thus, it is consistent with the provision that fish and wildlife resources receive equal consideration to other project features.

4. Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): The MSFCMA governs marine fisheries management in Federal waters. The Proposed Action is located inland, and the Sea is a terminal water body. Because the Salton Sea is not connected to marine waters, this Act is not applicable to the Proposed Action.

5. Section 106 of the National Historic Preservation Act: As part of its Section 106 consultation process, the Corps requested information regarding cultural and Native American resources in the Proposed Action area from all Native American tribes specified by the Native American Heritage Commission (NAHC) as being potentially affected. The Corps consulted the NAHC and received Sacred Land File search results and Native American contact list on 12 November 2010. On 26 August 2011, the NAHC responded to the DEIS/EIR with an updated Sacred Land File search for the Project area and an updated Native American contact list. On 27 April 2011, the Corps sent letters describing the Proposed Action and a map of the Project area to those individuals named by the NAHC as being affiliated with the area of potential effects/Corps permit area. In addition, on 13 October 2011 additional letters to the Tribes were sent to the individuals that were not contacted in April.

A letter from the Cocopah Indian Tribe was received; this letter indicated a "no comment to the SCH Project," but the Tribe requested to be kept informed throughout the process of the project. The Tribes listed on both of the NAHC letters have been included on the contact list for the project and have received, and will continue to receive, all notices for this project that are made available to the public. In addition, the Quechan Tribe responded with concerns about possible impacts to Obsidian Butte; however, this area is outside of the Project footprint and will not be directly or indirectly impacted by the Proposed Action. The Corps responded with a figure showing all of the alternatives being analyzed in addition to the Proposed Action. The Proposed Action and the alternatives are a large distance from Obsidian Butte. No additional responses were received.

No cultural resources were identified during record searches or pedestrian surveys of the Project area. Based on the information provided, the Corps has determined that there will be “no historic properties affected” for the Proposed Action. Consultation with the State Historic Preservation Officer was initiated on 5 October 2012, and no response was received. Therefore, the Corps assumes concurrence with the no historic properties affected determination, and the Section 106 process is complete.

6. Section 176(C) of the Clean Air Act General Conformity Rule Review: Annual emissions were compared to the General Conformity *de minimis* levels for National Ambient Air Quality Standards maintenance and nonattainment areas. Annual emissions of nitrogen oxides (NO_x), volatile organic compounds (VOC), and particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}) would be well below applicable General Conformity thresholds and, thus, in conformance with the applicable State Implementation Plans. Based on these findings, the Corps has found that the Proposed Action, as designed, would conform to the approved State Implementation Plans for ozone and PM₁₀. Accordingly, the Corps is in compliance with 176(c) of the CAA.

7. Executive Order 11998, Floodplain Management: Executive Order 11988 requires Federal agencies to prepare floodplain assessments for proposed actions located in or affecting floodplains. If an agency proposes to conduct an action in a floodplain, it must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the only practicable alternative involves siting in a floodplain, the agency must minimize potential harm to or in the floodplain and explain why the action is proposed there.

The Proposed Action would be consistent with Executive Order 11988. The Proposed Action is proposed for lands located in Flood Emergency Management Act (FEMA) Zone A areas (contained within the Salton Sea), although the Sea no longer occupies this land due to the receding water surface level. The land is currently dry where the project would be constructed. The adjacent upland area is also within the Zone A area, but no structures are proposed for this area. Portions of the Proposed Action, including pumps for water diversion facilities and sedimentation basins, would be located adjacent to the New River, but these facilities would not increase the risk of flood loss or affect the impact of floods on human safety, health, or welfare. The Proposed Action would be consistent with Executive Order 11988’s intent because it would restore the natural and beneficial values served by floodplains by restoring native habitat. If the pond berms failed, the impounded water would be released directly to the Sea or onto exposed playa where it would then flow to the Sea, and such failure would not expose people to risk of injury or death. The bottom of the sedimentation basin would be from approximately 15 to 20 feet below the ground surface and, therefore, would not pose a flood hazard.

8. Executive Order 11990, Protection of Wetlands: Executive Order 11990 requires Federal agencies to prepare wetland assessments for proposed actions located in or affecting wetlands. Agencies must avoid undertaking new construction in wetlands unless no practicable alternative is available, and the Proposed Action includes all practicable measures to minimize harm to wetlands.

The Proposed Action includes actions that would involve dredging, excavation, and placement of structures in waters of the U.S., including wetlands. Such actions would require permits under Section 404 of the Clean Water Act. The Proposed Action would not conflict with Executive Order 11990 and includes measures to preserve and enhance the natural and beneficial values of wetlands, as directed.

9. Executive Order 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: All Native American tribes identified by the NAHC received notification of the Proposed Action location and the availability of the DEIS/EIR and FEIS/EIR. The Corps sent out letters to individual tribes on 27 April and 13 October 2011; however, no negative comments or issues were provided to the Corps.

10. Environmental Justice (Title VI of the Civil Rights Act and Executive Order 12898): The Proposed Action has the potential to negatively impact at least one community due to NO_x and PM₁₀ emissions during construction, and therefore, could cause disproportionately high and adverse impacts on minority or low-income populations (Section 3.7 of the FEIS/EIR).

11. National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997: This Act provides for the administration and management of the national wildlife refuge system, including wildlife refuges, areas for the protection and conservation of fish and wildlife threatened with extinction, wildlife ranges, game ranges, wildlife management areas, and waterfowl production areas. The Proposed Action would be consistent with this Act because the operation of the species conservation habitat ponds would include the restoration of some habitat areas located within the Sonny Bono Salton Sea National Wildlife Refuge. Without the restoration of habitat as part of the Proposed Action, those portions of the existing refuge would become playa as the Sea recedes.

12. Migratory Bird Treaty Act, as amended: The Migratory Bird Treaty Act requires management and protection of migratory birds and, specifically, restricts the killing, taking, collection, and selling or purchasing of native bird species or their parts, nests, or eggs. Certain game bird species are allowed to be hunted during specific periods determined by Federal and state governments. Specific migratory birds covered under this Act are identified in separate agreements between the United States and Great Britain, Mexico, and Japan. The Proposed Action would be consistent with the Migratory Bird Treaty Act. The Proposed Action's restoration actions would benefit migratory birds by establishing conservation habitat areas for bird species protected by this Act. DFW has coordinated with the USFWS regarding impacts to migratory birds as required by Executive Order 13186. Mitigation Measures (MM) BIO-2 and BIO-4 would be implemented to ensure that the Proposed Action would not entail the taking, killing, or possession of any migratory birds or waterfowl subject to this Act or result in an adverse impact to their associated habitat.

13. Migratory Bird Conservation Act of 1929: The Migratory Bird Conservation Act of 1929 protects migratory birds by creating the Migratory Bird Conservation Commission. The Commission's purpose is to consider and approve the purchase, rental, or other acquisition of any areas of land or water that may be recommended by the Secretary of

the Interior for the purposes of establishing sanctuaries for migratory birds. No action is required under this Act. However, the Proposed Action is consistent with this Act's goals by providing conservation habitat for migratory piscivorous bird species.

14. Compliance with Executive Order 13112, Invasive Species: The purpose of this order is to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. The order established an Invasive Species Council (Council) to oversee implementation of this order and to see that Federal agency activities regarding invasive species are coordinated, complementary, cost-efficient, and effective. Federal agencies may not authorize, fund, or carry out actions that are likely to cause or promote introduction or spread of invasive species. The Council was also tasked with preparation of an Invasive Species Management Plan. The Proposed Action is consistent with this order, and implementation of MM BIO-6 would minimize the potential for introduction of invasive species during construction.

15. Compliance with Executive Order 13212, as amended by Executive Order 13302, Energy Supply and Availability: This order requires Federal agencies to expedite projects that will increase the production, transmission, or conservation of energy and strengthen pipeline safety, to the extent consistent with applicable law, while maintaining safety, public health, and environmental protections. The Proposed Action does not supply energy or affect availability of energy, so these orders are not applicable.

B. Compliance with 404(b)(1) Guidelines: A draft 404(b)(1) evaluation was provided in the FEIS/EIR, and the final 404(b)(1) evaluation is provided as Appendix B to this ROD. In summary, the Proposed Action, as identified and evaluated in the FEIS/EIR, is the least environmentally damaging practicable alternative (LEDPA). All of the appropriate and practicable conditions set forth in the EIS/EIR to minimize pollution or adverse effects on the affected aquatic ecosystem will be required by special conditions of the SIP (see below). Our determination of compliance is based on the following findings:

- (1) The project applicant has demonstrated that there are no available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharge into waters of the U.S.
- (2) The discharge will not violate state water quality standards.
- (3) The discharge will not violate toxic effluent standards.
- (4) The discharge will not jeopardize endangered or threatened species or their critical habitat.
- (5) The discharge will not violate standards set by the Department of Commerce to protect marine sanctuaries.
- (6) The proposed discharge material will meet testing exclusion criteria because the material is not a carrier of contaminants.

(7) The discharge will not contribute to significant degradation of waters of the U.S. through adverse impacts to human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife, and special aquatic sites.

(8) The discharge will not contribute to significant degradation of waters of the U.S. through adverse impacts on diversity, productivity, and stability of the aquatic ecosystem, such as the loss of fish or wildlife habitat, or loss of the capacity of wetlands to assimilate nutrients, purify water, or reduce wave energy.

(9) The discharge will not contribute to significant degradation of waters of the U.S. through adverse impacts to recreational, aesthetic, and economic values.

(10) All appropriate and practicable steps (40 C.F.R. §§ 230.70-77) will be taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem. Toward this end, the following special conditions are being included in the SIP being proffered for this project: See Special Conditions listed below.

(11) The discharge complies with the 404(b)(1) guidelines pursuant to 40 C.F.R. Part 230.12.

Special Conditions

The following special conditions will be included in the permit to ensure the Proposed Action is not contrary to the public interest and complies with the 404(b)(1) Guidelines:

Preconstruction

1. Prior to initiation of the each phase of the Proposed Action, the permittee shall provide written notification (“Construction Notification”) to the Corps. **No work is authorized until the permittee receives a Notice to Proceed from the Corps.** The Construction Notification shall include the following:

- a. Written description of pre-project alignments, elevation contours, and vegetation conditions;
- b. Written description for all the proposed structures, a description of the permanent and temporary impacts in waters of the U.S., a description of the amount of waters of the U.S. established by the project phase, maps showing project location, impact acreages and a complete set of final detailed grading/construction plans showing all work and structures in waters of the U.S. (including wetlands and special aquatic sites), location of staging and stockpiling areas, written documentation regarding compliance with all applicable special conditions of this permit and a description of all measures to avoid and minimize impacts to waters of the U.S. and other sensitive habitats and species;
- c. A site-specific restoration memo for all temporary impacts identifying the acreage and type of waters of the U.S. that would be impacted (including percentage of vegetation within the area) and restored to pre-constructions conditions as defined in Special Conditions 19 and 20 and the TIRP;

- d. The proposed planting palette for all temporarily impacted areas shall be submitted for approval by the Corps, prior to initiation of construction;
- e. A Monitoring and Adaptive Management Plan (MAMP) for the Proposed Action shall be developed in accordance with the Monitoring and Adaptive Management Plan Framework included as Appendix E of the Draft EIS/EIR. The MAMP shall be submitted to the Corps for approval prior to the initiation of construction. If each phase of the Proposed Action warrants modifications to the MAMP, a revised MAMP shall be submitted to the Corps prior to the initiation of construction of each phase;
- f. Name and address of contractor performing the work, an onsite point of contact and the size and type of equipment that shall be performing the work;
- g. Schedule for beginning and ending the project;
- h. Summary of all temporary and permanent impacts to waters of the U.S. that have been completed as part of previous project phases as well as a summary of all the initiated and completed restoration of temporary impacted areas for previous project phases;
- i. A description of how the Proposed Action complies with the Biological Opinion issued by the U.S. FWS by providing documentation that Special Conditions 23 through 25 of this permit have been met; and
- j. Copy of the 401 certification original and any re-issuance.

2. Upon receipt of a Construction Notification, the Corps will determine whether the activity is authorized by this permit. If the activity is not authorized, the Corps will notify the permittee that they may request that the Corps modify the permit to include the activity as described in the procedures at 33 C.F.R. Part 325.7. If the activity is authorized by the permit, the Corps will determine if the avoidance and minimization measures in the Construction Notification and the site-specific restoration memo for all temporary impacts comply with the terms and conditions of this permit. If the Corps determines that the proposed activity complies with the terms and conditions of the permit, a Notice to Proceed will be issued to the permittee. If the Corps determines that that all or part of the proposed activity does not comply with the terms and conditions of the permit, the Corps will issue a letter stating that the proposed activity does not meet the terms and conditions of the permit and, as a result, the proposed discharges of fill material in waters of the U.S. are not authorized.

3. Prior to initiation of any O&M activities within the Proposed Action, that would result in a discharge of dredged or fill material within waters of the U.S., the permittee shall provide written notification (“O&M Notification”) to the Corps. No work is authorized until the permittee receives a Notice to Proceed from the Corps. The O&M Notification shall include the following:

- a. Written description of pre-project alignments, elevation contours, and vegetation conditions;
- b. Written description for all O&M activities, a description of the permanent and temporary impacts in waters of the U.S., purpose of the proposed O&M activity, maps showing O&M location (including latitude and longitude coordinates), location

- of staging and stockpiling areas, written documentation regarding compliance with all applicable special conditions of this permit and a description of all measures to avoid and minimize impacts to waters of the U.S. and other sensitive habitats and species;
- c. A Vicinity Map, Plan View, and Cross-section view (as requested by the Corps), showing all work (permanent and temporary) in waters of the U.S.;
 - d. As appropriate, a site-specific restoration memo for all temporary impacts identifying the acreage and type of waters of the U.S. that would be impacted (including percentage of vegetation within the area) and restored to pre-construction conditions as defined in Special Conditions 19 and 20 and the TIRP;
 - e. Name and address of contractor performing the work, an onsite point of contact and the size and type of equipment that shall be performing the work;
 - f. Schedule for beginning and ending the project;
 - g. A description of how the Proposed Action complies with the Biological Opinion issued by the U.S. FWS by providing documentation that Special Conditions 23 through 25 of this permit have been met; and
 - h. Copy of the 401 certification original and any re-issuance that allows for proposed O&M activity.
4. All maps and drawings submitted shall be in compliance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Division dated August 6, 2012 (<http://www.spl.usace.army.mil/Media/PublicNotices/tabid/1320/Article/2931/final-map-and-drawing-standards-for-the-south-pacific-division-regulatory-progr.aspx>). And shall be submitted on paper no larger than 11x 17 inches
 5. A minimum of fifteen (15) days prior to the planned date of initiating impacts to waters of the U.S., including wetlands, for each phase of the authorized project, permittee shall submit to the Corps Regulatory Division the names, telephone numbers, email addresses, work schedules, and employers' names and addresses of each biological monitor assigned to the project.
 6. A copy of this permit and the Notice to Proceed will be provided to the permittee's project engineer and biological monitor, and will be on file at the project site, available for review and inspection.
 7. The permittee shall staff one or more qualified biological monitors to review staking of the limits of work prior to initiation of impacts and periodically (minimum weekly) inspect construction/O&M activities in the vicinity of waters of the U.S., including wetlands, to ensure compliance with all requirements of this permit and ensure that adverse impacts do not occur outside of the permitted project area.
 8. Prior to the onset of the authorized activity, the permittee shall implement a contractor education program to ensure that all onsite personnel are informed of the biologically sensitive resources associated with the project site and compliance with all the construction specific Conditions herein (Conditions 7-15). The permittee shall maintain a personnel training log sheet that indicates onsite personnel's understanding and agreement with the construction relevant permit conditions, the log shall include individuals' names, signatures, and their employers' name, phone numbers, and address. As new personnel are brought onto

the project during construction, they shall first participate in the contractor education program, and make the same affirmation relative to their understanding of the applicable permit conditions. The permittee will up-date the training log sheet as new on-site personnel are added to the project. The permittee, specifically the project engineer will retain the log sheets, and make them available for Corps inspection and/or provide copies to the Corps when requested.

Construction

9. The permittee shall allow representatives from the Corps Regulatory Division to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of the permit.

10. The permittee shall clearly mark the limits of the workspace with plastic snow fencing, silt fencing, flagging or similar means to ensure mechanized equipment does not enter preserved waters of the U.S., including wetlands, as well as riparian scrub habitat areas shown on plans, maps, drawings or figures submitted to the Corps for each project phase. Adverse impacts to waters of the U.S., including wetlands, beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil or criminal penalties, and/or substantial, additional, compensatory mitigation requirements.

11. A qualified biological monitor shall document implementation of this permit, and submit a written observation report to the permittee's project engineer. The biologist/permittee shall report any non-compliance incident with the permit to the Corps Carlsbad field office (760-602-4829) within one day of its occurrence. The biologist/permittee shall submit a written report summarizing the noncompliance with the permit and any measures implemented to rectify the incident to the Corps Regulatory Division field office within three days of notification to the Corps Regulatory Office of the non-compliance.

12. The permittee shall discharge only clean construction materials suitable for use in the riverine environment.

13. Excavated materials from within the project site will be discharged within the permitted project boundary (either used as construction material or disposed outside the outer berm of the project). The permittee shall immediately remove all excess excavated material to an approved upland storage or disposal site.

14. All temporary stockpiling in waters of the US is authorized only where it is specifically stated in the project phase Construction Notification; all temporary stockpiles shall be removed from waters of the US within two weeks of completion of the project phase.

15. No debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products from construction shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the U.S., including wetlands outside of authorized impact areas.

16. No mechanized equipment, rubber-tired vehicles, track vehicles, or other equipment shall be stored, staged, or fueled in waters of the U.S., including wetlands outside of authorized impact areas.

17. The permittee shall ensure that all vehicle maintenance, staging, storage, and dispensing of fuel occurs in areas designated in the project phase Construction Notification. The permittee shall ensure that these designated upland areas are located in such a manner as to prevent any runoff from entering waters of the U.S., including wetlands, and shall be designated on maps furnished in the project phase Construction Notification.

Post-Construction

18. Within six months of completion of each phase of authorized discharges of dredged or fill material in waters of the U.S., including wetlands and upon completion of each authorized O&M activity, the permittee shall submit to the Corps Regulatory Division a post-project implementation memorandum including the following information:

- a. Date(s) work within waters of the U.S., including wetlands, was initiated and completed;
- b. Summary of compliance status with each special condition of this permit (including any non-compliance that previously occurred or is currently occurring and corrective actions taken or proposed to achieve compliance);
- c. Color photographs (including map of photopoints) taken at the project site before and after construction for those aspects directly associated with permanent impacts to waters of the U.S., including wetlands, such that the extent of authorized discharges of fill material can be verified;
- d. One copy of "as built" drawings for the entire project. Electronic submittal (Adobe PDF format) is preferred. All sheets must be signed, dated, and to-scale. If submitting paper copies, sheets must be no larger than 11 x 17 inches; and
- e. Signed Certification of Compliance (attached as part of this permit).

19. An annual report on completed O&M activities subject to this permit shall be submitted to the Corps by October 1 of each year. This report will also be provided to the RWQCB, CDFW and USFWS. The annual report will also include:

- a. A list of authorized completed O&M activities;
- b. Discussion that impacts at each site were not exceeded;
- c. photographs shall be included of sites that are representative of each activity that was performed under the permit;
- d. This report shall be received and reviewed by the Corps for compliance with the special conditions of this permit and then provided to the resource agencies for their review; and
- e. Field site visits may be performed by the Corps, as a part of the compliance evaluation.

Mitigation

Vegetated Wetlands

20. At the conclusion of the project phase, all temporary fill within vegetated wetland waters of the U.S. shall be removed and the area shall be restored to pre-construction conditions (contours and vegetated condition) to the maximum extent practicable.

Temporarily impacted vegetated wetlands would rely in part on natural recruitment of plant species, however, if appropriate species do not readily recruit after one year of maintenance and monitoring, the permittee shall hydroseed the temporarily disturbed areas with native non-invasive vegetation using the appropriate seeding palette as described in Table 5 though 8 of the Temporary Impact Restoration Plan (TIRP), dated October 2013. The permittee shall ensure the restored areas are maintained and monitored for a period of two years after completing any seeding activities.

Nonvegetated Wetlands and Nonwetland Waters of the U.S.

21. No later than one month following completion of each phase of authorized work in waters of the U.S., the permittee shall ensure all sites within waters of the U.S. subject to authorized, temporary impacts are restored to pre-project alignments, elevation contours, and conditions to the maximum extent practicable to ensure expeditious resumption of aquatic resource functions. No later than 45 calendar days following completion of authorized discharges of dredged or fill material into waters of the U.S., the permittee shall submit a memorandum documenting compliance with this special condition.

Mitigation Monitoring

22. The permittee shall submit monitoring reports for all restored areas as described in Special Conditions 19 and 20 and in the TIRP by October 1 of each year following the restoration to pre-construction conditions. To assure temporary impacted areas are returned to pre-construction conditions, the permittee shall monitor the mitigation areas for at least two (2) consecutive growing seasons after construction or until the Corps determines the final performance standards are met. The restored area will not be deemed successful until this criterion has been met.

23. Permittee shall submit to the Corps Regulatory Division a memorandum within six months of complete installation of all restoration activities per phase including the following information:

- a. Date(s) all restoration was completed and monitoring was initiated;
- b. Schedule for future monitoring and reporting pursuant to final, Corps-approved TIRP; and
- c. Color photographs (including map of photopoints) taken at each restoration site before and after installation such that correct installation per the TIRP can be verified; and
- d. One copy of "as built" drawings of all restoration sites. Electronic submittal (Adobe PDF format) is preferred. All sheets must be signed, dated, and to-scale. If submitting paper copies, sheets must be no larger than 11 x 17 inches.

Endangered Species Act

24. This permit does not authorize you to take any threatened or endangered species; in particular the desert pupfish (*Cyprinodon macularius*) adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a BO under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed BO (FWS-IMP-12BOO 18-13F0058) contains mandatory terms and conditions to implement the

reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit.

25. To minimize impacts to and avoid take of the federally endangered/threatened Yuma clapper rail (*Pallus longirostris yumanensis*), southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*), the permittee shall implement the following minimization measures, which were included in the project design submitted as part of the permit application for the project:

- a. The permittee shall implement Mitigation Measures BIO-2 through BIO-6 included in the EIS.
- b. The permittee shall conduct pre-construction surveys for Yuma clapper rail prior to any ground disturbing activities that is within 500-ft of potential Yuma clapper rail habitat.
- c. To avoid and minimize adverse impacts to these species, vegetation removal will be conducted outside of the breeding season, which is defined as March 15 to September 15, when feasible. If vegetation removal occurs during the breeding season, the applicant will conduct pre-construction breeding and nest surveys and implement noise attenuation measures to ensure breeding and nesting activities are not adversely affected.
- d. The permittee shall prepare and implement a long-term monitoring plan to survey for bird species that occur in and around the Project area, conduct a noise analysis and implement noise attenuation measures, design interception ditches to avoid alteration of water levels in adjacent marshes, avoid impacts to sensitive and riparian habitats to the greatest extent feasible, and implement best management practices to minimize the introduction of invasive species.

26. Prior to initiation of project construction, the permittee shall notify the USFWS in writing of the intended project initiation date and anticipated duration of the construction period. The notification shall include verification of compliance with special conditions 22 and 23 above.

National Historic Preservation Act

27. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the permittee shall notify the Corps' Archeology Staff within 24 hours (Steve Dibble at 213-452-3849 or John Killeen at 213-452-3861). The permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

C. Public Interest Review

a. The relative extent of the public and private need for the proposed work has been considered: The Sea has become an extremely critical resource for many species of resident and migratory birds, including several species of special concern, due to widespread loss of wetland habitat in the U.S. and Mexico. Without restoration, declining inflows in future years will result in the Sea's ecosystem collapse due to increasing salinity (expected to exceed 60 ppt by 2018, which is too saline to support fish) and other water quality stresses, such as temperature extremes, eutrophication, and related anoxia due to algal productivity. The most serious and immediate threat to the Sea's ecosystem is the loss of fishery resources that support piscivorous birds. In addition, with the receding of the Sea, there is a higher potential for fugitive dust emissions that would be under the responsibility of the local landowners to ensure that their land complies with local Air Quality standards. Through implementation of the Proposed Action, this would address the need of sustaining resident and migratory bird species populations as well as alleviate local landowners (both public and private) within the Project area from needing to comply with air emission standards.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated in the EIS (Chapter 2): Project alternatives were screened for practicability based on achieving the overall Project purpose, cost, and logistics criteria. The logistics criteria consisted of evaluation of the potential for disruption of agricultural drainage systems and long-term soil stability. Environmental impacts due to the implementation of the alternatives were not used to eliminate an alternative as impracticable. An alternative that may have larger short-term environmental impacts may also result in larger long-term environmental benefits; therefore, alternatives that meet the practicability criteria were carried forward for further analysis within the 404(b)(1) Alternatives Analysis. The environmental impacts and expected benefits for each practicable alternative are fully analyzed in Section 4.0 of the Final 404(b)(1) Alternatives Analysis. All Project alternatives would achieve the overall Project purpose and all meet the cost criteria.

Those Project alternatives that would require gravity diversion of water from the New or Alamo rivers (Alternatives 1 and 4) were not considered practicable based on the logistics criteria related to potential disruption of agricultural drainage systems.

Of Alternatives 2, 3, 5, and 6, those located at the Alamo River (Alternatives 5 and 6) were not considered practicable based on the logistics criteria related to potential long-term soil stability issues due to mud pots located east of the Alamo River in Morton Bay.

The additional ponds associated with Alternative 3 would result in additional impacts on jurisdictional resources (mainly open water) when compared to Alternative 2, but effects on listed species, water quality, hydrology, other wildlife species, and human use would not increase as a result of construction of these additional ponds. These additional ponds provide a benefit of establishing 1,107 acres of additional habitat area compared to Alternative 2. Alternative 3 would result in approximately 21 more acres of permanent loss than Alternative 2 due to the additional berms; however, this would be immediately offset by the creation of 883 acres of wetland waters of the U.S. Although both alternatives would create the same

amount of additional wetland waters (883 acres), this increased acreage would only be short-term due to the recession of the Sea. Therefore, only the total acreage of ponds created by Alternative 3 would continue to support jurisdictional resources and provide functions and services attributed to aquatic resources, while surrounding areas are eventually expected to convert to non-jurisdictional uplands. Alternative 3 would preserve more area as jurisdictional resources (3,285 acres) than would Alternative 2 (2,178 acres). Therefore, although the immediate short-term impacts would be slightly higher under Alternative 3, the long-term environmental benefits would also be higher for Alternative 3. The long-term potential benefits of creating the additional constructed pond area outweighs the increased short-term impacts of Alternative 3, especially given the long-term fate of these areas if no project was constructed.

c. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited has been reviewed: The beneficial and detrimental impacts of the Proposed Action are summarized below.

1. Aesthetics: Implementation of the Proposed Action would result in beneficial aesthetic impacts for the duration of the Project related to change in the visual character of the area occupied by the ponds.

2. Agricultural Resources: The Proposed Action would be constructed on land that was recently or is currently submerged. No impacts on farmland would occur, nor would conflicts with agricultural zoning or Williamson Act contracts occur.

3. Air Quality: The Proposed Action would have long-term beneficial impacts on air quality because the ponds would cover more playa than would otherwise be exposed as a result of the No Action Alternative throughout the duration of the project. Due to the water that would be diverted to the ponds instead of flowing directly to the Sea and the differential evaporation rates between the Sea and the ponds, by 2077, the Proposed Action would reduce the Sea's depth by 5.1 percent, and its water surface elevation would be about 1.0 foot lower as a result of the diversions. Nonetheless, by 2077, the ponds would cover 1,150 more acres of playa than would be exposed as a result of the No Action Alternative. Thus, the ponds would reduce fugitive dust emissions around the Sea by covering otherwise exposed playa with water. No ambient air quality violations would occur solely due to the Proposed Action's emissions for any pollutant, although construction emissions would incrementally contribute to existing violations of state and Federal air quality standards for O₃, PM₁₀, and PM_{2.5}. The General Conformity analysis determined that the Proposed Action would not obstruct or conflict with any air quality attainment plans. Any incremental contribution would be *de minimus* and is not expected to add to the existing violations of state and Federal air quality standards for O₃, PM₁₀, and PM_{2.5}. Construction impacts would be temporary and would cease once construction ended, and mitigation measures would be implemented that would reduce impacts to the extent feasible.

4. Biological Resources: Construction and operation would affect habitat and individuals of desert pupfish and several special-status bird species. It also could affect nesting by some common bird species and introduction of invasive species, but mitigation

measures identified in the EIS would be implemented that would reduce or avoid such impacts.

The Sea currently supports a wide variety of bird species and a limited aquatic community. Without restoration, however, declining inflows in future years will result in the Sea's ecosystem collapse due to increasing salinity (expected to exceed 60 ppt by 2018, which is too saline to support fish) and other water quality stresses, such as temperature extremes, eutrophication, and related anoxia due to algal productivity. The Proposed Action would restore up to 3,770 acres of shallow water habitat, and thus would benefit fish and wildlife dependent on the Sea by providing suitable habitat, including appropriate water quality parameters and features such as shallow water and constructed islands that would provide predator protection for resting and nesting, and food sources, including fish and aquatic invertebrates.

The Sea is projected to become unsuitable for desert pupfish, a federally and state-listed endangered species, when salinity reaches about 90,000 mg/L. The Proposed Action would provide habitat for desert pupfish in place of the habitat that will be lost after the Sea exceeds desert pupfish salinity tolerances. Isolated populations would remain where the drains and tributaries (rivers and several streams) enter the Sea, but the ponds would provide approximately 3,770 acres of habitat with suitable water quality. In addition, the population in the drains entering the interception ditches would be permanently connected.

The Proposed Action may result in changes to the invertebrate food base for species that rely on invertebrate food. If that occurs, it would be a beneficial impact for such species by providing foraging opportunities that may not exist under future conditions. The Proposed Action would replace that temporary loss with equal or greater shoreline and provide a food source that may not exist in the future. For piscivorous birds, the Proposed Action would provide fish as a food source as conditions in the Sea degrade to a point where fish populations cannot be sustained except in small areas at the drain and river outflows. The amount of fish provided, however, would be considerably less than that currently in the Sea and would support a smaller number of piscivorous birds. Consequently, after the Sea's salinity exceeds the tolerance of the fish species used by the birds, the Proposed Action would be the primary source of forage fish at the Sea, and the piscivorous bird populations would likely decline to match the more limited availability of food sources.

Although construction of berms and other facilities would result in a permanent loss of waters of the U.S. (approximately 90.1 acres), an overall net increase of 793 acres (restored waters of the U.S. minus loss of waters due to Project implementation) would occur under the Proposed Action, along with improved quality of waters of the U.S.

The ponds that would be constructed under the Proposed Action are specifically designed to attract American white pelican, Caspian tern, double-crested cormorant, black skimmer, and gull-billed tern, of which gull-billed tern and black skimmer are special-status species. The ponds also would benefit other bird species, such as the eared grebe, western snowy plover, ruddy duck, black tern, and California brown pelican. The habitat provided would include the shallow water they require for foraging, a food source, and constructed islands that would provide predator protection for nesting upon completion of construction, which would

increase the amount of habitat for these species. The addition of islands protected from predators and a food source for piscivorous birds is a beneficial impact of the Proposed Action.

The Proposed Action would benefit fish and aquatic invertebrates by restoring habitat that is more stable than the Sea's and with salinity near that of seawater.

5. Cultural Resources: The Proposed Action would not affect any known cultural resources, but it would be located in an archaeologically sensitive area, and construction activities could encounter cultural resources or human remains associated with the area's historical occupation by both Native Americans and Euroamericans. Mitigation measures would be implemented to require that all areas that would be disturbed would be surveyed prior to construction and to ensure that inadvertent discoveries were addressed in an appropriate manner.

6. Energy Consumption: The Proposed Action's operation would require the use of electric pumps to deliver saline water from the Sea to the ponds. Over time, the efficiency of the saline pumps may decrease under long-term pumping; however, the pumps would be maintained appropriately and replaced when needed, which would minimize the amount of power required.

7. Environmental Justice: The Proposed Action is not expected to negatively impact any community, and therefore, is not expected to cause disproportionately high and adverse impacts on minority or low-income communities. Any impacts would be minimized to the extent feasible by mitigation measures.

8. Geology and Soils: Impacts associated with geological resources would be minimized through appropriate engineering and construction best management practices.

9. Greenhouse Gas Emission/Climate Change: Construction would generate approximately 6,650 metric tons of carbon dioxide equivalents (CO₂e) over the course of 2 years anticipated for construction. These emissions would be temporary and would cease upon completion of work. The primary power demand during operations would result from pumping. Minimal power would be required at the trailer that would serve as office space for the permanent employees. During operation, direct GHG emissions from maintenance equipment and vehicles would be about 103 tonnes of CO₂e annually. The pumps required to move water from the river to the ponds would use electrical power. Thus, indirect GHG emissions from the fossil fuel component of mixed electric power generation would increase as a result of the proposed action. Indirect GHG emissions from electric power used by the pumping plants would be about 3,017 tonnes of CO₂e annually. Combined direct and indirect operational emissions would be about 3,120 tonnes of CO₂e annually. The State of California has imposed a number of regulations requiring the reduction of GHG emissions and the increased use of renewable energy sources. Thus, power required to operate the Project pumps would increasingly come from sources that minimized the production of GHG emissions.

10. Hazards and Hazardous Material: Construction of the Proposed Action could temporarily result in the release of hazardous materials, encounter contaminated soils, increase the risk of wildland fires, and temporarily increase traffic along adjacent roads. Adherence to state, Federal, and local requirements would minimize the potential for impacts on the public and the environment. Project construction could release air and dust-borne disease causing viruses, potentially affecting construction workers, but this impact would be minimized through proper training. Any impacts associated with hazards or hazardous materials during operations would be minor.

11. Hydrology and Water Quality: Construction of the ponds would temporarily degrade water quality at the Sea, but the Proposed Action would include an Erosion and Sediment Control Plan and a Stormwater Pollution Prevention Plan for construction and maintenance activities, which would address such impacts. Berm failure could cause water quality impacts from erosion and sedimentation of the adjacent river and the Sea, but they would be temporary, localized, and minor.

Implementation of the Proposed Action would cause a slight, but permanent reduction in the Sea's water surface elevation. The Sea elevation is currently -231.0. By 2077, the Sea is expected to decline to -258.2 under the No Action Alternative. The Proposed Action would increase this to -259.2, an increase of only 1 foot. Salinity also would increase; the 3,770-acre pond would cause a 9.5 percent increase (to 297.9 ppt) by 2077. The salinity of the Sea would be changing regardless of whether the Project were implemented, however, and the Proposed Action would not, in itself, result in changes that would have an adverse effect on or preclude the beneficial uses of the Sea identified in the Basin Plan. No other changes in water quality would violate established standards.

12. Land Use: The Proposed Action would be compatible with existing and future land uses planned for the area.

13. Noise: The Proposed Action would be located in a remote area, and noise from construction, operations, and maintenance would not exceed any established noise thresholds at sensitive receptors.

14. Paleontological Resources: The Proposed Action would result in ground disturbance, which could expose and damage paleontological resources, but mitigation measures would be implemented requiring surveys, worker training, and a paleontological resource data recovery plan.

15. Recreation: The Proposed Action would create recreational opportunities at the pond sites, which would be a beneficial impact. The Proposed Action is not specifically designed to accommodate recreation because the provision of recreational opportunities is not a Project goal. Nevertheless, some recreational activities would be available to the extent that they are compatible with the management of the ponds as habitat for piscivorous (fish-eating) birds dependent on the Sea.

Public access would be allowed to facilitate day use, hiking, bird-watching, and non-motorized watercraft use. However, management plans may require that certain areas be

seasonally closed to human activities to avoid disturbance of sensitive birds. When bird nesting is observed, human approach would be limited by posted signs. Hours of public access could be restricted to early morning during hot weather when nesting birds are present.

Fish would not be intentionally stocked for the purpose of providing angling opportunities. Nevertheless, such opportunities may be provided at the ponds, in particular for tilapia. Fish populations would be monitored as a metric of the Proposed Action's success. If populations became well established and appeared to provide fish in excess of what birds were consuming, angling would be allowed.

Waterfowl hunting would be allowed consistent with the protection of other avian resources. This would not be substantially different from the conditions that currently exist, and would be better than what would occur in the future.

16. Socioeconomics: Construction and operation of the Proposed Action would cause an increase in local employment and an increase in tax revenue and local business revenue. These increases would result in beneficial cumulative impacts that result from worker spending and the purchases of materials and equipment. Operation of the ponds would increase opportunities for passive recreational activity and research, which would be a long-term beneficial impact. Other impacts would not be significant. Pond creation would preclude the reclamation of exposed playa for agricultural use, but only 8 percent of the exposed playa would be affected. The Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields. There is a potential for some birds that use the ponds to forage in the nearby fields and expose crops to bird feces. Of the species that are attracted to the agricultural fields, however, only gulls are anticipated to be potentially high users of the ponds. It is possible that after the collapse of the Sea, ponds could locally increase the density of gulls, at least temporarily. However, overall available habitat will be declining, thereby resulting in an overall decline of bird populations. Further, the species that most frequently use the agricultural fields are attracted to the irrigated fields, not to the Sea itself. The ponds are being created to partially replace the Sea habitat, so the type of habitat created by the ponds is not the type of habitat that is most attractive to these species.

17. Cumulative effects associated with the Project are described in detail in Section 4.0 of the EIS/EIR. The EIS/EIR determined there would be no cumulative impacts on Agricultural Resources and Land Use and Recreation, and a less than significant impact for Aesthetics, Energy Consumption, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, and Noise. The EIS/EIR found that with implementation of mitigation measures for the proposed action, as well as general required measures for other projects, cumulative impacts would be reduced to less than significant for Biological Resources, Cultural Resources, Hazards and Hazardous Materials, and Paleontological Resources. The EIS/EIR also found that cumulative impacts were significant and unavoidable after implementing mitigation measures for Environmental Justice and Air Quality, but these impacts would be temporary and only associated with construction. As discussed above, the proposed action would have a long-term beneficial impact on fugitive dust emissions.

Based on the above information, I find that my decision to issue a permit for Alternative 3, as prescribed by regulations published in 33 C.F.R. Parts 320 to 332, is not contrary to the public interest.

X. Conclusion

For the reasons outlined above, the proposed Project is the alternative that best meets the purpose and need of the project and is the LEDPA. The Corps will ensure that the commitments outlined above will be implemented as part of the project construction.

Based upon a careful consideration of all the social, economic, and environmental evaluations contained in the EIS/EIR; the input received from other agencies, organizations, and the public, it is my decision to issue a Department of the Army permit associated with the Proposed Action pursuant to section 404 of the Clean Water Act.

DATED: 22 November 2013



Kimberly M. Colloton, PMP
Colonel, US Army
Commander and District Engineer