Draft Initial Study

Red Hill Bay Wetlands Restoration Project
Imperial County, California

Imperial Irrigation District
333 East Barioni Blvd.
PO Box 937
Imperial, CA 92251

November 2017

1. Project Title:
Red Hill Bay Wetlands Restoration Project

2. Lead Agency Name and Address:
Imperial Irrigation District
333 East Barioni Boulevard
P. O. Box 937
Imperial, CA 92251

3. Contact Person and Phone Number:
Stephanie Sharp
Environmental Specialist 1
(760) 482-3614

4. Project Location:
The Red Hill Bay Wetlands Restoration Project will be constructed on approximately 621 acres located in portions of Sections 22 & 27, Township 11 South, Range 13 East, in an unincorporated area of Imperial County, California. The proposed project site is on the southeastern shore of the Salton Sea, west of Garst Road, and south of Red Hill Bay Marina Road. It is bordered on the south by a portion of the Salton Sea levee system, adjacent agricultural land, and to the west by the Salton Sea. The U.S. Sonny Bono Salton Sea National Wildlife Refuge borders the proposed project site to the southwest.

5. Project Sponsor's Name and Address:
U.S. Fish & Wildlife Service
Sonny Bono Salton Sea National Wildlife Refuge
906 W. Sinclair Rd.
Calipatria, CA 92233

Imperial Irrigation District
333 East Barioni Boulevard
P. O. Box 937
Imperial, CA 92251

6. General Plan Designation:
Under the Imperial County General Plan, Land Use Element, the proposed project site is currently designated as “Recreation/Open Space/Preservation” and “Agriculture”. (*Land Use Element of the Imperial County General Plan*, dated October 6, 2015.)

7. Zoning:
Under the Imperial County Land Use Ordinance, Title 9, the proposed project site is within the Open Space/Recreation – Geothermal Overlay Zone (S-1-G), the Open Space/Preservation – Geothermal Overlay Zone (S-2-G) and the Heavy Agriculture – Geothermal Overlay Zone (A-3-G). (Zoning Ordinance, Title 9, Division 5, Amended April 18, 2017.)

8. Agency Requiring Checklist:
State Clearinghouse; City of El Centro; County of Imperial

9. Other Agency Approval and Permits:
None.

10. Authority:

This initial study is prepared pursuant to the California Environmental Quality Act (CEQA), California Public Resources Code sections 21000, *et seq.*, and the State CEQA Guidelines (CEQA Guidelines), Title 14 of the California Code of Regulations sections 15000, *et seq.*, (collectively "CEQA"). CEQA requires that an environmental impact report (EIR) be prepared if a proposed project may result in one or more significant environmental impacts. (Public Resources Code section 21082.2; CEQA Guidelines section 15064.) A negative declaration (ND) or mitigated negative declaration (MND) shall be prepared when the initial study either a) "shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment," or b) "identifies potentially significant effects, but 1) revisions in the project plans… would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment." (CEQA Guidelines section 15070). The purpose of this initial study is to provide a preliminary analysis that enables the Imperial Irrigation District (IID), as lead agency under CEQA, to determine whether an EIR, MND or ND must be prepared for the Red Hill Bay Wetlands Restoration Project. (Public Resources Code section 21080.1; CEQA Guidelines sections 15063, 15064, 15070, 15081.)

11. Project Description:

The U.S. Fish & Wildlife Service (USFWS) manages the Sonny Bono Salton Sea National Wildlife Refuge, which consists of approximately 37,660 acres, is situated at the south end of the Salton Sea, approximately 20 miles north of El Centro in Imperial County, California. (U.S. Fish & Wildlife Service, *Sonny Bono Salton Sea National Wildlife Refuge Complex, Final Comprehensive Conservation Plan*, dated March 6, 2014, pg. 1-1.) The U.S. Fish & Wildlife Service proposes to construct, operate and manage a project to "restore the Red Hill Bay area of the Salton Sea in partnership with [IID] to provide shallow water habitat for a range of migratory birds, including nesting seabirds, while also reducing dust emissions from this exposed area of the Salton Sea." (*Ibid.* at pg. 2-5.)

The proposed project is approximately 621 acres of shallow saline ponds created by mixing pumped Alamo River and Salton Sea water into two ponds for shallow shorebird and wading bird habitat. Loafing and nesting islands will provide areas for birds to rest and snags or perch

platforms will provide roosting areas within the ponds. Small pipes will be placed for various aquatic fish species to reside in. The proposed project will include:

- Pond 1 – approximately 458 acres;
- Pond 2 – approximately 37 acres;
- Existing marsh– 11 acres;
- Berms (#1 through #5) – approximately 26 acres;
- Water (saline and river) and power systems – approximately 14 acres;
- Geothermal access corridors – approximately 75 acres;
- Total – approximately 621 acres

Infrastructure:

Berms: The proposed project consists of five low berms (approximately 1 meter high) around the main boundary of Red Hill bay to form Pond 1, approximately 458 acres, and a smaller pond of approximately 37 acres on the northwestern portion of the project site. Berm 1 will form the western boundary of Ponds 1 and 2. Berm 2 will form the southern and eastern boundary of Pond 2 with Red Hill forming the natural northern boundary. Berm 3 will be an internal intermediate berm (built in an east-west direction) to direct the bulk of the mixed waters (target salinity 25-40 mg/L) from the mixing chamber to Pond 1. Berm 3 will be reinforced with rip-rap to ensure minimal erosion from the passing of mixed salinity waters on its way into Pond 1. Berm 4 will form the northern boundary to Pond 1 parallel to Red Hill Marina Road and Berm 5 will form the eastern boundary parallel to Garst Road. An existing Salton Sea levee will act as the southern boundary to Pond 1. These shallow habitat pond cells will provide wading and shorebird habitat on the previously exposed playa areas. Ponded water will help to reduce the potential of emissive dust from blowing from Red Hill Bay.

Water Delivery: The proposed project consists of a water conveyance system designed to transport and blend Alamo River and Salton Sea waters into the two shallow water ponds. The proposed project includes pumping Alamo River and Salton Sea waters through underground pipes to a mixing basin where the water is blended before released into Ponds 1 and 2. An inlet structure from the Alamo River will allow water to gravitationally flow into a three-chamber sediment basin, which is intended to remove between 85-95% solids entrained within the river water on a seasonal basis, thus preventing the solids from going into the ponds. The sedimentation basin is sized and designed to require singular compartmental cleanout once per year. The river water will flow from the settling basin directly to two specifically designed/engineered frequency driven variable speed pumps (one will always be in standby/backup mode). The river water will then be pumped into the 2,420 feet of 24" High Density Poly Ethylene (HDPE) underground forced main pipe, which will cross under Red Hill Marina Road to reach the mixing basin.

A small jack-up work barge will be initially located approximately 11,500 feet off-shore of Red Hill Bay to suction saline water. The saline water will flow into two specifically designed/engineered frequency driven variable speed pumps with suction screens (one will always be in standby/backup mode) located on the deck area (40' x 24') of the barge. These pumps will feed saline to hyper saline water into 12,290 feet of 20" to 16" HDPE pipe to the mixing chamber sited in the upper northwest section of the proposed project site to create a target salinity of 25-40 mg/L.

Blended water from the mixing chamber will gravitationally flow into Pond 1 and Pond 2 in a turbulent nature to ensure a homogeneous mixture of both river and saline waters to the extent possible. The intended flow rates will be in approximately 10 cubic feet per second for desired flow through the ponds as well as accommodating both seepage and evaporation losses over the 25 year expected lifespan of the proposed project.

Pond 1 will consume 90% of the water from the mixing chamber. Pond 2 will be fed from the mixing chamber in a westerly direction and discharge into Pond 1 on the southwestern edge of the pond. Pond 1 will discharge via two direct release culverts through Berm 1 onto the playa and drain towards the Salton Sea.

Power System: Electrical power for the proposed project will come from a three-phase 12 kilovolt power line that will be extended along Schrimpf Road westward to the existing Red Hill Marina Road single phase 7KV line. The Red Hill Marina Road 7KV line will be upgraded to a 12 KV three-phase line for the proposed project's power needs with a meter station at the end of the line. The saline offshore mobile pump barge will be supplied power from the meter station via an underground power line through Berm 1 and converted to a marine power cable. The Alamo River pumping station will be powered from the meter station via an underground power line to the pump. Both underground power lines will initiate from a 12KV/480V step-down transformer at the end of the upgraded power line along Red Hill Marina Road.

Geothermal Corridors: Three 300-foot geothermal corridors are located on the north, east and west sides of the outer berms ponds to allow for geothermal access and development at the proposed project site.

Construction: Berms will be constructed using wide track bulldozers and associated earthmoving equipment designed and intended for utilization on fine playa sediments. Water depths in each pond will be maintained at approximately 0.3 meters on the western side of Berm 5 and about one meter on the eastern side of Berm 1. Berms will be constructed from on site and readily available materials geotechnically, analyzed and deemed suitable for berm construction with compactions rates in excess of 90%. Rip-rap will come from onsite sources near the proposed project site and specifically from waste piles located at the base of Red Hill.

The proposed project will include installation of membrane sheeting on the pond sides of Berms 1 and 4, from the top of the berm to the defined clay layer two to three feet below existing grade. The sheeting will provide optimum retention of waters within the ponds and ensure access to the 300 foot geothermal corridors adjacent to Berms 1, 4 and 5.

The construction and equipment laydown/staging areas for the proposed project are located to the north of the proposed project site for a total of approximately 11 acres. The Alamo River intake and sediment basins will consist of approximately 8 acres during construction activities. The saline pump barge will be launched from Obsidian Butte. Construction and installation activities including the launch site are approximately 2 acres. Construction and installation of both forced main pipes will be at and around the proposed project site of the pipes for a total of approximately 9 acres. The power supply for the proposed project includes construction and extension of the 12KV three-phase line down Schrimpf Road for 1.5 miles, crossing the Alamo River and connecting with the upgraded 12KV three-phase line down Red Hill Marina Road. Burial of the 12KV power to the river and saline pumps is approximately 5 acres. The total temporary construction area is approximately 130 acres.

Operation & Maintenance:

USFWS Sonny Bono National Wildlife Refuge will operate and maintain the proposed project once construction is complete. Ongoing maintenance will include periodic removal of sediment around water control structures, maintenance of roadways along berms and cleaning of filtration screens at pumping stations. The pumping facilities, particularly the Sea water pump, will be regularly inspected and fouling removed. Draining the ponds will not be a routine maintenance activity. Draining may be required if a berm were to be damaged or if another emergency were to occur that affected the integrity of the berms or other features of the proposed project.

Monitoring activities will include monitoring the biotic and abiotic functions of the created habitat. Water quality (pesticides and selenium), bird use, and fish and invertebrate colonization will be monitored for at least five years (or for another specified time period) following survey protocols identified in the Salton Sea Ecosystem Monitoring and Assessment Plan. Salinity, temperature and dissolved oxygen will be measured each week at points near the inlet and outlet of each cell.

During one full year, water samples will be collected from the Alamo River every two weeks, and this water will be sent to the U.S. Geological Survey (USGS) Pesticide Fate Research Group (PFRG) in Sacramento, California for current-use pesticide analysis. The pesticide work is intended to provide information on the variations in concentration of 90 current-use pesticides

and may identify potentially dangerous spikes or seasonality of pesticides presence in Alamo River water and suspended sediments within the river.

Twenty sediment samples from the proposed project site will also be analyzed by PFRG for current-use and legacy pesticides. This will inform USFWS of legacy pesticide concentrations that may be exposed with construction activities. To monitor selenium, the USGS Western Ecological Research Center (WERC) will conduct sample collection and selenium analysis in water, sediments and invertebrates on a quarterly basis for at least three years. Additional monitoring will be implemented if the initial data warrants additional selenium monitoring or more extensive monitoring to include bird eggs.

Biologically, comprehensive bird surveys will be conducted at least three times per season; the seasons being identified as late winter, spring migration, breeding season, and early fall to best capture bird use and phenology of the site during key periods of the year. Surveys of colonial nesting birds (i.e., gull-billed terms *[Sterna nilotica vanrossemi*], black skimmers [*Rynchops niger*]) will be conducted weekly throughout the breeding season to identify numbers of breeding pairs, fledgling success, and to evaluate nesting island design. Quarterly fish surveys, using 1/8 inch minnow traps, placed strategically throughout the site and at inlets and outlets, will provide an index of fish abundance and diversity with approximately 10 percent of each species measured for size class distribution. Benthic and water column invertebrates will be sampled quarterly for two years (by USGS WERC) and enumerated by lowest practical taxonomic group.

No Action Alternative

The No Action Alternative provides a basis for comparing the environmental consequences of the proposed project with the existing conditions at the site. For this Initial Study, the No Action Alternative assumes that the proposed project would not go forward and no work would occur at Red Hill Bay. The seawater elevation would continue to drop, exposing a larger area of dry seabed. This exposure would result in the emission of fugitive dust, including particulates of 10 micrometers or less, causing significant adverse effects on air quality and human health. Shallow water habitat would continue to decline. Red Hill Bay is currently almost completely dry, excluding seepage from agricultural drains, and no longer affords avian foraging or nesting grounds.

IV. ENVIRONMENTAL SETTING

The site of the proposed project is located adjacent to agricultural and open space areas near the City of Calipatria, within Imperial County, California. This area is primarily open space. (See Figures 1 & 2).

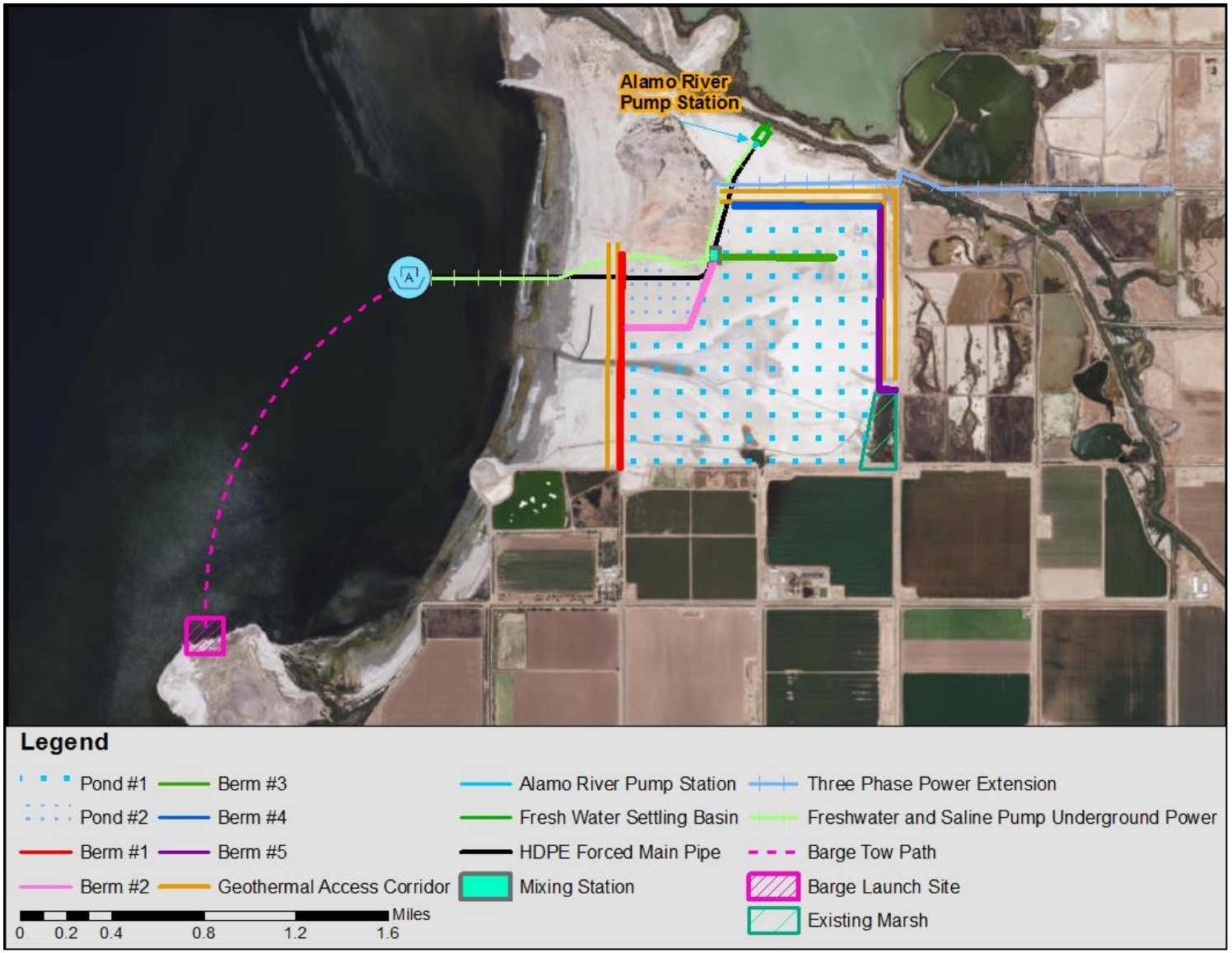
V. POTENTIAL ENVIRONMENTAL EFFECTS

Discussion of potential impacts is included in the Environmental Checklist. No significant impacts are identified for the proposed project. There is the potential for minimal impacts to desert pupfish (*Cyprinodon macularius*) and Ridgway's rail (*Rallus obsoletus yumanensis*) habitat. These impacts and their mitigation measures are addressed in section *IV Biological Resources*, pages 16 - 19, of the Environmental Checklist.

VI. SUMMARY OF CONCLUSIONS & FINDING OF NO SIGNIFICANT EFFECT ON THE ENVIRONMENT

Based on the attached Environmental Checklist, it has been determined that construction, operation and maintenance of the proposed project will not have a significant effect on the environment if the mitigation measures proposed concerning desert pupfish and Ridgway's rail are implemented.

Based upon finding that the impacts identified were less than significant if proposed mitigation measures are incorporated, it is concluded that a Mitigated Negative Declaration is the appropriate CEQA action.



(Figure 1 – Project Map)

(Figure 2 – Project Location within State of California)

VII. INITIAL STUDY

Environmental Factors Potentially Affected:

The environmental factors checked below could potentially be affected by this project if not mitigated. As indicated by the checklist and the evaluation of environmental impacts on the following pages, all potential impacts have been mitigated and determined to be less than significant or no impact.

☐ Aesthetics	☐ Agricultural and Forest Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

Environmental Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the project, nothing further is required.	☐

Signature

Stephanie L. Sharp
Environmental Specialist I
Environmental Mitigation, Water Dept.

Imperial Irrigation District

Lead Agency

Date

ENVIRONMENTAL CHECKLIST

Red Hill Bay Wetlands Restoration Project

I. AESTHETICS Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Have a substantial adverse effect on a scenic vista?				☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?				☒
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				☒

The level of change to the landscape resulting from the project will be moderate and will not dominate the views of the casual observer. The proposed project will restore scenic values and reestablish Red Hill Bay as a shallow-water habitat. The proposed project site is not located near any scenic vista or state scenic highway. No aspect of the project would damage or degrade any existing scenic resources. The project does not create substantial light or glare that could adversely affect day or nighttime views in the area. Thus, no impact is identified for this issue and it is not discussed further.

II. AGRICULTURAL AND FOREST RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			☒	
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?			☒	
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?			☒	
d. Result in the loss of forest land or conversion of forest land to non-forest use?			☒	
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			☒	

Land ownership for the proposed project site is the IID. The propose project site lies within undeveloped open space property on the southeastern shore of the Salton Sea, west of Garst Rd. and south of Red Hill Bay Marina Rd. owned by the IID. Pursuant to the County of Imperial Land Use Ordinance, Title 9, Division 5, Chapter 19, “m) Parks and picnic grounds.” is a permitted use in open space zones. Thus, the proposed project does not conflict with any existing agricultural or forest zoning nor impact agricultural or forest resources.

III. AIR QUALITY Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Conflict with or obstruct implementation of the applicable air quality plan?				☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			☒	
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				☒
d. Expose sensitive receptors to substantial pollutant concentrations?			☒	
e. Create objectionable odors affecting a substantial number of people?				☒

The proposed project would not emit any significant levels of pollutants after construction is completed (no new stationary sources would be generated), and no conflicts with the Imperial County Air Pollution Control District (ICAPCD) regulations are expected. Construction or operation of the proposed project would not generate any unusual pollutants. The project will not create or contribute to a net increase of any criteria pollutants. There appear to be few sensitive receptors in the project area, and no objectionable odors would be produced. A dust control plan will be developed for the construction phase and will be implemented per the Imperial County Air Pollution Control District's requirements.

IV. BIOLOGICAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		☒		
b. Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			☒	
c. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?			☒	
d. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			☒	
e. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?			☒	

The proposed project could result in short-term adverse effects to local wildlife, while providing long-term benefits to migratory and resident bird species. The project would convert open seabed, that until recently was submerged under the Salton Sea, to open water; restoring wildlife habitat that provides foraging and loafing areas for a broad range of avian species.

The purpose of the proposed project is twofold: 1. to reestablish the Red Hill Bay area as an important saline shallow-water shorebird habitat and, 2. to cover the dry seabed

area with saline water and decrease particulate matter that becomes airborne during wind events. The proposed project is a component of the Sonny Bono Salton Sea National Wildlife Refuge (SBSSNWR) and is included in the SBSSNWR Comprehensive Conservation Program (CCP).

Desert pupfish is the only endangered or threatened species that may be impacted by the proposed project.

Desert Pupfish: the desert pupfish is a small fish, less than 3 inches in length, belonging to the Cyprinodontidae family of fishes, was listed as endangered in 1986 (Moyle 2002). The desert pupfish has a tolerance for high water temperatures, high salinities and low dissolved oxygen concentrations. Habitats include clear, shallow waters with soft substrates associated with springs, streams, margins of lakes or rivers, shoreline pools and irrigation drains and ditches.

Factors affecting desert pupfish in the action area include water conservation and transfer projects, water quality degradation, predation/competition, climate change and population monitoring and relocation activities. Currently desert pupfish numbers are relatively low and the distribution patchy, focused mainly among drains, creeks and shoreline pools (USFWS 2010). Irrigation drains allow for connectivity to shoreline pools, and maintenance of these drains will be required to maintain populations. Desert pupfish are not known to occur in the Alamo River due to high sediment loads, high velocities and potential presence of predators.

Fields directly south of Red Hill Bay are pumped over the berm and terminate at Red Hill Bay. The pumped water creates a wetted area within the proposed project area that has been found to have desert pupfish in the past.

A survey for desert pupfish at the wetlands on the southeast corner of Red Hill Bay was conducted on June 24, 2014 by Sharon Keeney (CDFW, Bermuda Dunes). Mosquito fish (*Gambusia affinis*) and sailfin mollys (*Poecilia latipinna*) were captured. The wetland had four small rivulets of water draining the wetland. Desert pupfish were observed in some of rivulets, but the water was too shallow to trap. When westerly winds push Salton Sea water into the bay, these rivulets may connect to the Salton Sea. On June 25, 2013 Sonny Bono NWR staff observed desert pupfish to be present off of the pumped water to the west of the wetlands. Since this area does not have an impounded area the channel is probably dependent on the amount of spill water pumped onto the playa.

Direct Effects:
Construction: Direct effects of construction may include diverting agricultural discharge water from the pumped fields along the southern edge of Red Hill Bay to the Salton Sea. To minimize effects mitigation measures 1 and 2 will be implemented prior to the start of construction. Another portion of construction that could present a risk of harm to desert pupfish is during excavation within the Salton Sea. Desert pupfish have been

trapped in the Salton Sea near Red Hill Bay, and measures will be implemented to avoid and reduce mortality with mitigation measures 3, should excavation be needed.

Operation & Maintenance: It is anticipated that this proposed project may support breeding pupfish and the operation and maintenance plan will address this potential and include features and protocols to minimize take of desert pupfish in the proposed project area. The pump will be designed to safely move live fish, transporting them with water as it is elevated up as the screw of the pump spins, mitigation measure 4. Since pupfish are likely to find their way into the system, the proposed project will include deep areas and shade structures to provide thermal buffers and shelter, mitigation measure 6.

Once the Salton Sea reaches a salinity that is detrimental to the survival of desert pupfish, 68ppt or higher, fish from the proposed project will be allowed to directly exit into the Salton Sea at the discharge locations. Once the Salton Sea reaches 68ppt a screen will be placed over the outlets to meet mitigation measure 5.

Should it become necessary to dewater large areas of the proposed project, mitigation measure 2 will be implemented for the relocation of desert pupfish to avoid and reduce mortality.

Indirect Effects: if large numbers of desert pupfish occupy Red Hill Bay, bird predation may occur. Predation impacts could be offset by fish production, especially in areas where unintentionally low water levels occur, making desert pupfish more visible. To offset this indirect effect, normal operation of water levels must be maintained.

Beneficial Effects: the proposed project should not displace desert pupfish in naturally occurring habitats around the Salton Sea and should result in the addition of several hundred acres of potential habitat. This proposed project will be managed to target salinity levels beneficial for desert pupfish and provide cover. This proposed project is consistent with the desert pupfish recovery plan and will not preclude recovery.

The proposed action is not likely to reduce the survival and recovery of desert pupfish by appreciably reducing the reproduction, numbers or distribution of the species because:

- Measures will be taken to avoid take of desert pupfish currently in the proposed project area.
- Any desert pupfish passing through the pump will have a high probability of surviving.
- The proposed project is expected to provide several hundred acres of suitable desert pupfish habitat.
- The resulting habitat will be monitored and managed with desert pupfish in mind.

The biological resources impact analysis for the proposed project was augmented with information and previous biological assessments contained in the Sonny Bono Salton Sea NWR Draft Comprehensive Conservation Plan and Environmental Assessment and the SBSSNWR Intra-Service Section 7 Biological Opinion.

Avoidance and Minimization Measures

Mitigation Measure-1: Any construction and maintenance activities in wetted areas within Red Hill Bay will follow protocols intended to prevent the take of desert pupfish. Immediate work areas will be surveyed for desert pupfish by using 1/8 inch mesh beach seine. If pupfish are found to be present, the work area will be screened with ¼ inch mesh netting and cleared of fish before proceeding with work. Fish capture protocols and an appropriate relocation site will be developed in consultation with the California Department of Fish and Wildlife (CDFW) prior to commencement of the proposed project. Capture protocols will depend on site conditions at the time work is scheduled to commence, and are likely to involve the use of a combination of appropriately sized nets, traps, beach seines, and aquarium dip nets. Captured fish will be immediately placed in 5-gallon plastic buckets containing aerated water from the site of their capture. These buckets will be transported to a relocation site as quickly as possible. Relocated fish will be observed for signs of stress and incorporated into their new environment through incremental changes in water sources as necessary to minimize stress/injury associated with differential water quality characteristics. A count will be maintained of all fish caught and relocated, and a record will be kept of the disposition of all fish. All relocation data will be provided to CDFW.

Mitigation Measure-2: If it becomes necessary to dewater large areas where desert pupfish are found, fish will be captured and relocated to a new site. Relocation sites and capture protocol will be determined through consultation with CDFW. Fish capture protocols will depend on site conditions at the time of draw down but will likely be done using a combination of appropriately sized nets, traps, beach seines and aquarium dip nets. Captured fish will be immediately placed in a 5-gallon plastic buckets containing aerated water from the site of their capture. These buckets will be transported to a relocation site as quickly as possible. Relocated fish will be observed for signs of stress and incorporated into their new environment through incremental changes in water sources as necessary to minimize stress/injury associated with differential water quality characteristics. A count will be maintained of all fish caught and relocated, and a record will be kept of the disposition of
all fish. This relocation data will be provided to CDFW.

Mitigation Measure-3: Prior to excavation work in the open waters of the Salton Sea, the work area will be swept with a 1/8 inch mesh beach seine prior to laying excavator mats and inserting sheet piling. The sheet piling will not be inserted fully, and the portion remaining above water will act as a fish exclusion barrier once excavation of the channel begins. Prior to channel excavation, the channel will be swept with the seine

and the mouth of the channel will be fenced with ¼-inch screen. Areas where excavated material will be deposited will be similarly swept clear and temporary ¼ inch screen fencing installed to exclude fish from the work area.

Mitigation Measure-4: Fish friendly pumping technology will be employed to facilitate passive introduction of fish to the proposed project area. Fish, fry, or pelagic eggs that find their way through the screen are not expected to be impacted by the centrifugal screw pumps used to lift water to the impoundments

Mitigation Measure-5: As the lake salinity approaches 68 ppt screening of the outlet with a ¼ inch mesh fish screen will be necessary if water exiting the system flows directly into the lake. This will prevent desert pupfish from flowing into in hospitable water.

Mitigation Measure-6: Despite actions to keep desert pupfish out of the restored area, there continues to be the potential for their eventual presence within the restoration area, therefore, the Proposed project includes a variety of features to support desert pupfish (i.e., the creation of deep pools and swales [up to six feet deep], installation of shade structures [concrete culverts] to provide desert pupfish with a thermal buffer and shelter). Additional cover in the form of wigeongrass (*Ruppia maritma*) and filamentous green alga (e.g., *Chaetomorpha linum*), introduced within inflowing water, is also likely to become established.

V. CULTURAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				☒
c. Directly, or indirectly, destroy a unique paleontological resource or site or unique geologic feature?				☒

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(b)]. CEQA Historical Resources include resources that are eligible for the NRHP or the CRHR [CCR Title 14, Section 15064.5(a)]. Such resources can be buildings, structures, and facilities from the historic period and prehistoric and historic archaeological sites. Demolition or alteration of eligible buildings, structures, and features to the extent that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would result in a significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed “visual impacts”) of eligible buildings and aboveground structures and facilities in the proposed project area could also result in significant impacts.

Any cultural resources in the proposed project study area (if found) may be evaluated to determine if they are eligible for the CRHR. If evaluated as eligible for the CRHR, the resources are considered Historical Resources as defined by CEQA.
Construction activities were analyzed to determine whether they would demolish or destroy the Historical Resource or if they would materially impair the characteristics that made the resource eligible for the CRHR. If the construction activities would demolish or destroy the Historical Resource or if they would materially impair the characteristics that make it eligible, the impact is determined to be significant. If a cultural resource is not a Historical Resource as defined by CEQA, there is no potential for impacts and impacts are not analyzed.

The proposed project site is within existing IID owned, previously submerged land. No historical, paleontological, or archaeological resources are expected to be encountered.

If, in the unlikely event a cultural resource is discovered, due to any ground disturbance/excavation, all construction activity in and around the discovery location will stop immediately. The resulting mitigation may involve archaeological investigation, consultation, data recovery, avoidance, and/or resource recovery.

VI. GEOLOGY AND SOILS Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				☒
ii) Strong seismic ground shaking?			☒	
iii) Seismic-related ground failure, including liquefaction?			☒	
iv) Landslides?				☒
b. Result in substantial soil erosion or the loss of topsoil?				☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			☒	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			☒	
e. Have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				☒

Because the entire southern California region is considered seismically active, there is always the possibility that a large quake along one of the major faults in the region may induce strong seismic ground shaking along the proposed project route. Under these conditions, the proposed project site could be subjected to moderate to severe ground

shaking in the event of a major earthquake along the San Andreas or Imperial fault zones. However, no structures for human occupation are proposed by the proposed project. The proposed project is on a level area that is not subject to topsoil erosion. Access by workers will be from existing paved or graded roads. Grading or earthwork that results in unstable soil conditions is not planned. The proposed project does not include any activities, such as mining or groundwater withdrawal that could cause land subsidence nor require sewers or waste disposal systems.

Soils on the proposed project site predominately consist of clays with imbedded silts and sandy silts. The native clays within the area exhibit very low to medium swell potential when tested according to The Uniform Building Code Standard 18-2 methods. The proposed project is a wetlands restoration and includes a period of drying, compacting, and adding rip-rap to reduce erosion. The proposed project will provide stabilization for the exposed seabed.

The proposed project is located on soils incapable of supporting the use of septic tanks or alternative wastewater systems and the nature of the proposed project will not require them.

VII. GREENHOUSE GAS EMISSIONS Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?			☒	
b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				☒

Existing CEQA guidelines require that environmental impacts of projects due to greenhouse gas emissions (GHG) be evaluated and disclosed to the public, where those impacts are potentially significant, that they be mitigated. The determination of significance, including any thresholds, is the exclusive purview of the Lead Agency and its policy board; given this and the fact that the County of Imperial has not established construction-based greenhouse gas emissions significance thresholds, the following parameters will be used to assess significance of the proposed project GHG emissions.

- California Air Resources Board 2008 estimate of total GHG emissions: 473.76 million metric tons of CO_2 equivalents.
- The South Coast Air Quality Resource Management District (SCAQMD) GHG significance threshold of 10,000 metric tons of CO_2 equivalent per year for projects in which SCAQMD is the lead agency.

*The U.S. Environmental Protection Agency (EPA) developed the following guidelines (**EPA420-F-05-001 February 2005)** to facilitate consistency of assumptions and practices in the calculation of emissions of greenhouse gases from transportation and mobile sources. They are intended as a reference for anyone estimating emissions benefits of mobile sources air pollution programs.*

Carbon Content in Motor Vehicle Fuels

One of the primary determinants of carbon dioxide (CO_2) emission from mobile sources is the amount of carbon in the fuel. Carbon content varies, but typically, the EPA uses average carbon content values to estimate CO_2 emissions. The Code of Federal Regulations (40 CFR 600.113) provides values for carbon content per gallon of gasoline and diesel fuel which the EPA uses in calculating the fuel economy of vehicles:

- Gasoline Carbon content per gallon: 2,421 grams
- Diesel carbon content per gallon: 2,778 grams

Note that for the "Inventory of U.S. Greenhouse Gas Emissions and Sinks," the EPA estimates CO_2 emissions from fuel from the heat content of the fuel and carbon content coefficients in terms of carbon content per quadrillion BTU (QBTU), using data from the Energy Information Administration (EIA). EIA's numbers are derived from carbon content by mass, and equate to roughly the same carbon content per gallon of fuel as the values provided in 40 CFR 600.113. EPA uses heat content data from the Energy Information Administration's (EIA) "Annual Energy Outlook 2003" and carbon content from EIA's "Emissions of Greenhouse Gases in the United States, 2000." Note also that these estimates are based only on an average carbon content of conventional gasoline and diesel fuel, and do not specifically address the impact of fuel additives such as ethanol or methyl tertiary butyl ether (MTBE) that may depend on the feedstock.

Calculating CO_2 Emissions

The Intergovernmental Panel on Climate Change (IPCC) guidelines for calculating emissions inventories require that an oxidation factor be applied to the carbon content to account for a small portion of the fuel that is not oxidized into CO_2. For all oil and oil products, the oxidization factor used is 0.99 (99 percent of the carbon in the fuel is eventually oxidized, while 1 percent remains un-oxidized[1].)

Finally, to calculate the CO_2 emissions from a gallon of fuel, the carbon emissions are multiplied by the ratio of the molecular weight of the CO_2 (m.w. 44) to the molecular weight of carbon (m.w. 12): 44/12.

- CO_2 emissions from a gallon of gasoline = 2,421 grams x 0.99 x (44/12) = 8,788 grams = 8.8 kg/gallon = 19.4 pounds/gallon

- CO_2 emissions from a gallon of diesel = 2,778 grams x 0.99 x (44/12) = 10,084 grams = 10.1 kg/gallon = 22.2 pounds/gallon

The only greenhouse gas emissions the proposed project will generate are construction-related since the operation of the proposed wetlands will not produce any emissions. Estimated consumption of fuel by equipment and vehicles involved in the site grading and construction of the proposed project is 8000 gallons diesel and 1000 gallons of gasoline.

- Co_2 emissions from a gallon of gasoline: 19.24 pounds/gallon
- Total CO_2 emissions from gasoline consumed in the proposed project's construction = 19.4 pounds/gallon x 1000 gallons = 19,400 pounds

- 1 pound = 0.00045 Metric Tons
- Total CO_2 emissions in metric tons from gasoline consumed in the proposed project's construction = 19,400 pounds x 0.00045 Metric Tons/pound = 8.73 metric tons of CO_2

- Co_2 emissions from a gallon of Diesel: 22.2 pounds/gallon

- Total Co_2 emissions from diesel consumed in the proposed project's construction = 22.2 pounds/gallon x 8000 gallons = 177,600 pounds

- 1 Pound = 0.00045 Metric Tons

- Total CO_2 emissions in metric tons from diesel consumed in the proposed project's construction = 177,600 pounds x 0.00045 Metric Tons/pound = 79.92 metric tons of CO_2

Total GHG emissions for the proposed project: 88.65 metric tons CO_2

Thus, the GHG emissions generated by the proposed project is well below the SCAQMD threshold and represents a less than 0.000018% of the California Air Resources Board 2008 estimate of total GHG emissions. Consequently, the proposed project will have no significant impact on GHG emissions and does not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Note: These calculations and the supporting data have associated variation and uncertainty. EPA may use other values in certain circumstances, and in some cases, it may be appropriate to use a range of values. [1]*Based on emissions data, EPA's Office of Transportation and Air Quality (OTAQ) is currently examining whether this fraction is higher (closer to 100 percent) for gasoline.*

VIII. HAZARDS AND HAZARDOUS MATERIALS Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			☒	
b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?			☒	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				☒
D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				☒
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				☒

The proposed project does not involve the routine transport, use, or disposal of hazardous materials. Any use or disposal of hazardous materials or waste during construction activities will be conducted according to all applicable state, federal, and local regulations. The proposed project route is not located on any hazardous materials sites; therefore, no significant hazard to the public or environment would occur with construction and operation of the proposed project. The proposed project does not involve the obstruction of any roads that would serve as emergency response or evacuation routes.

The USFWS Environmental Contaminants (EC) Program provides support to National Wildlife Refuges to address issues related to contaminants, including evaluations of potential threats to Refuge resources from contaminants through the Contaminants Assessment Process (CAP). The EC program also assists Refuge staff in working with the State if necessary to address hazardous waste issues identified on the Refuge.

IX. HYDROLOGY AND WATER QUALITY Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Violate any water quality standards or waste discharge requirements?				☒
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site				☒
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?				☒
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				☒
f. Otherwise substantially degrade water quality?				☒
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				☒
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				☒
j. Inundation by seiche, tsunami, or mudflow?				☒

Implementation of this proposed project would include construction of a set of low berms across portions of Red Hill Bay to form a pair of pond cells that would hold impounded shallow saline water, providing habitat for wading birds and shorebirds in currently dry seabed.

Portions of Red Hill Bay are considered Waters of The U.S. by the USACOE and Waters of the State by CDFW.

The proposed project includes a water delivery system from the Alamo River and a salt-water delivery system from the Salton Sea. The water delivery system from the Alamo River includes inlet structure that will allow for gravitational flows into a three-chamber sedimentation basin, which is intended to remove between 85 to 95% of the solids in the river water on a seasonal basis, thus preventing the solids from finding their way in to the habitat ponds. The sedimentation basin is designed to only require compartmental cleanout once per year. Once the river water has passed through the settling basin, water will flow to two specifically designed/engineered frequency driven variable speed pumps, one of which will always be in standby/back-up mode. From there, via an underground forced main, the river water will flow under Red Hill road to the mixing chamber

The saline pump barge will initially be located approximately 12,290’ offshore. Saline water will be fed into the mixing chamber via a forced main and two fish friendly, suction screened frequency-driven variable speed pumps, one of which will always be in standby/back-up mode.

The waters will then flow from the concrete mixing chamber into the main cell (#1) in between berms #3 & #4 and cell #2 in a turbulent nature to ensure a homogeneous mixing of both river and saline waters. Berm #3 will be reinforced with rip-rap to ensure minimal erosion from the passing of mixed salinity waters on its way into the main cell. The intended flow rates will be in the order of 10 cubic feet per second (cfs) which will

ensure both an adequate and desired flow through the habitat as well as accommodating both seepage and evaporation losses over the 25-year lifespan of the proposed project. The main cell will contain approximately 90% of the pumped water. Cell #2 will be fed directly from the mixing chamber in a westerly direction and will contain approximately 10% of the water flow. Cell #2 will then discharge into cell #1 and then onto the playa and back down to the Salton Sea via two direct release culverts. This discharge will also serve to act as dust suppression on its way down to the sea. As part of this monitoring plan, the USGS would be contracted to investigate selenium and pesticide exposure risk. Twenty sediment samples from the proposed project site will be collected and analyzed by the USGS Pesticide Fate Research Group (PFRG) for current-use and legacy pesticides. This data would inform refuge staff of potential hazards that may be exposed with different construction methods and allow staff to make adjustments in the construction design or methods if necessary. Water samples collected form the Alamo River every two weeks for a full year would be sent to PFRG for current-use pesticide analysis. This sampling effort is intended to provide a snapshot of variations in concentration of 90 current-use pesticides and may identify potentially dangerous spikes or seasonal patterns of pesticide presence as well as suspended sediments in the Alamo River. To address selenium, the USGS Western Ecological Research Center (WERC) would conduct sample collections and selenium analysis in water, sediments, and invertebrates in a bi-annual basis for at least two years. During the breeding season, additional selenium monitoring to include bird eggs and nesting success would be implemented. As sufficient selenium data is collected a risk assessment would be made and used to advise future management and continued monitoring efforts.

The proposed project would not result in the generation of wastewater. The proposed project would not involve groundwater withdrawal or interfere with groundwater recharge and would not substantially alter the existing drainage pattern of the site or significantly create or contribute to runoff water. The proposed project does not involve any housing or other buildings within a 100-year flood hazard area. No adverse effects to hydrology or water quality would occur with implementation of the proposed project. The proposed project area is not in an area susceptible to seiche, tsunami, or mudflow hazard.

X. LAND USE AND PLANNING Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Physically divide an established community?				☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				☒
c. Conflict with any applicable habitat conservation plan or natural communities' conservation plan?				☒

The proposed project will not physically divide any established community nor pose any conflict with applicable general plan designations, zoning ordinances or any applicable habitat or natural communities' conservation plans. This proposed project will be constructed to comply with all the applicable local, county, and state codes.

XI. MINERAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				☒

According to the Imperial County General Plan (1993), the site is stated to have no suitable sand or gravel deposit. There are two geothermal leases located within the project area and one geothermal lease on the proposed project site. No loss of significant mineral resources is expected.

XII. NOISE Would the project result in:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				☒
b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				☒
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				☒
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			☒	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				☒

Construction activities may temporarily generate higher than usual levels of noise. Nearby sensitive receptors may experience temporary construction-related noise impacts, however, no permanent increase in ambient noise levels would occur with implementation of the proposed project. Sensitive receptors include any wildlife adjacent to the proposed project area. Nevertheless, traffic on any of the County roads adjacent to the proposed project site will dominate the local noise environment at a level well below any applicable noise standards. The proposed project is not within an airport land-use plan or private airstrip.

XIII. POPULATION AND HOUSING Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?				☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				☒

The proposed project will restore a historic wetland and will not include proposing new dwellings or induce substantial population growth. No existing housing or residents will be displaced by the proposed project.

XIV. PUBLIC SERVICES Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Police protection?				☒
Schools?				☒
Parks?				☒
Other public facilities?				☒

The proposed project will not significantly increase local fire protection demands and the nature of the proposed project is such that it would have no effect on demands for police protection. No feature of the proposed project would generate a demand for school services.

XV. RECREATION Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				☒

The proposed project would not increase the demand for parks or other recreational facilities. The proposed project does not include recreational facilities and would not have an adverse effect on surrounding recreational areas.

XVI. TRANSPORTATION/TRAFFIC Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Result in a substantial increase in the number of vehicle trips, roadway vehicle volume or vehicle miles traveled?			☒	
b. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				☒
c. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				☒
d. Result in inadequate emergency access?				☒
e. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				☒

Temporary construction traffic is anticipated, but should not substantially contribute to existing traffic in the area. After construction, the only traffic generated by the proposed project would be for maintenance and would not be at significant levels. The proposed project will not affect air traffic patterns either directly or indirectly. No traffic hazards are anticipated as a result of the proposed project. There will be no restriction of emergency access to the site or to any other area. No public parking areas would be affected and no conflicts with adopted policies supporting alternative transportation would occur.

XVII. UTILITIES AND SERVICE SYSTEMS Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			☒	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				☒
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				☒
g. Comply with federal, state, and local statutes and regulations related to solid waste?				☒

The proposed project would not generate wastewater or require wastewater facilities. The project will have sufficient water supplies available from the Salton Sea and the Alamo River as water flows are available. The proposed project would not generate significant amounts of solid waste.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			☒	
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects).				☒
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				☒

The proposed project does not have the potential to degrade the quality of the environment if the suggested mitigation measures discussed in *Section IV. Biological Resources (pgs. 16 – 19)* are implemented. The Red Hill Bay Restoration Project would not result in adverse effects on human beings, either directly or indirectly, (See discussion on pesticides in *Section IX Hydrology and Water Quality* on pages 25 – 28, and *Section VIII Hazards and Hazardous Materials* on pages 24 – 25). The proposed project would have beneficial effects by reducing air borne particulates from the dry seabed, restoring a historical wetland, as well as creating an important nesting habitat for migratory seabirds.

XVIII. EARLIER ANALYSIS. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c) (3) (D). In this case, a discussion should identify the following on attached sheets:

Sonny Bono Salton Sea National Wildlife Refuge Complex. (2013) *Draft Comprehensive Conservation Plan and Environmental Assessment.* Volume 1.

Sonny Bono Salton Sea National Wildlife Refuge Complex. (2014) *Intra-Service Section 7 Biological Opinion for Sonny Bono Salton Sea National Wildlife Refuge Red Hill Bay Restoration Project.*

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Sonny Bono Salton Sea National Wildlife Refuge Complex. (2014) *Intra-Service Section 7 Biological Opinion for Sonny Bono Salton Sea National Wildlife Refuge Red Hill Bay Restoration Project.*