

Executive Summary

ES1.1 INTRODUCTION

This Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) evaluates the impacts of alternative methods of implementing the Salton Sea Species Conservation Habitat Project (SCH Project or Project). The SCH Project is intended to serve as a proof of concept for the restoration of shallow water habitat that currently supports fish and wildlife dependent upon the Salton Sea (the Sea); this habitat is being lost due to salinity increases and the declining Sea elevation. This section of the EIS/EIR presents background and introductory information, and describes the authorities of the lead agencies (United States [U.S.] Army Corps of Engineers [Corps] and the California Natural Resources Agency) in preparing this EIS/EIR, the public outreach program, and the scope and contents of the EIS/EIR. This EIS/EIR has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 United States Code section 4341 et seq.), and in conformance with the Council on Environmental Quality NEPA guidelines and the Corps' NEPA Implementing Regulations. The document also fulfills the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations section 15000 et seq.). The Corps is the NEPA lead agency, and the California Natural Resources Agency is the CEQA lead agency. The EIS/EIR was prepared under the direction of the California Department of Fish and Game (DFG) and California Department of Water Resources on behalf of the Natural Resources Agency and the Secretary for Natural Resources.

ES1.2 PROJECT LOCATION

The Project would be located at the southern end of the Salton Sea in Imperial County, California. Alternative sites for implementing the SCH Project are located near the mouths of the New and Alamo rivers.

ES1.3 CEQA PROJECT GOALS AND OBJECTIVES / NEPA PURPOSE AND NEED

The Salton 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 The Salton Sea is currently a hypersaline ecosystem (about 51 ppt) (C. Holdren, Reclamation, unpublished data). 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 Salton 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)). Therefore, under CEQA the SCH Project's goals are two-fold: (1) develop a range of aquatic habitats that will support fish and wildlife species dependent on the Salton Sea; and (2) develop

1 and refine information needed to successfully manage the SCH Project habitat through an adaptive
2 management process. Specific objectives under each goal are described in detail in Section 1 of this
3 EIS/EIR.

4 ***Goal 1: Develop a range of aquatic habitats that will support fish and wildlife species dependent on***
5 ***the Salton Sea.***

6 The SCH Project's purpose is to provide in-kind replacement for near-term habitat losses. The Project's
7 target species are those piscivorous bird species that use the Salton Sea and are dependent on shallow
8 saline habitat for essential habitat requirements within their western geographic range. The Salton Sea
9 plays an important role in supporting significant portions of the populations of some of these birds.

10 **OBJECTIVES FOR GOAL 1:**

- 11 1) Provide appropriate foraging habitat for piscivorous bird species.
- 12 2) Develop physical structure and microhabitat elements required to support piscivorous bird
13 species.
- 14 3) Support a sustainable, productive aquatic community.
- 15 4) Provide suitable water quality for fish.
- 16 5) Minimize adverse effects on desert pupfish.
- 17 6) Minimize risk of selenium.
- 18 7) Minimize risk of disease/toxicity impacts.

19 ***Goal 2: Develop and refine information needed to successfully manage the SCH Project habitat***
20 ***through an adaptive management process.***

21 The SCH Project's second goal would be to serve as a proof of concept for the restoration of shallow-
22 water habitat that supports fish and wildlife currently dependent upon the Salton Sea. The Project would
23 incorporate an adaptive management framework to guide evaluation and improved management of the
24 newly created habitat as well as to inform future restoration. An adaptive management framework
25 provides a flexible decision-making process for ongoing knowledge acquisition, monitoring, and
26 evaluation, leading to continuous improvement in management planning and Project implementation to
27 achieve specified objectives. The information obtained would be used to measure Project effectiveness, to
28 refine operations and management of the ponds, to reduce uncertainties about key issues, and to inform
29 subsequent stages of habitat restoration at the Salton Sea.

30 **OBJECTIVES FOR GOAL 2:**

- 31 1) Identify uncertainties in achieving the objectives of providing habitat and prey for piscivorous
32 birds (e.g., maintaining suitable water temperature and dissolved oxygen) and minimizing
33 impacts on species (e.g., selenium ecorisk).
- 34 2) Develop and implement a monitoring plan.
- 35 3) Develop a decision-making framework.
- 36 4) Provide proof of concept for future restoration.

37 The purpose of the Project under NEPA is to develop a range of aquatic habitats that will support wildlife
38 species dependent on the Salton Sea in Imperial County, California.

1 ES1.4 DRAFT SECTION 404(B)(1) ALTERNATIVES ANALYSIS BASIS AND 2 OVERALL PROJECT PURPOSE

3 The Clean Water Act (CWA) section 404(b)(1) Guidelines (Guidelines) promulgated by the U.S.
4 Environmental Protection Agency explain that, when an action is subject to NEPA and the Corps is the
5 permitting agency, the analysis of alternatives prepared for NEPA will, in most cases, provide the
6 information needed for analysis under the Guidelines. The Guidelines also state that, in some cases, the
7 NEPA document may have addressed "a broader range of alternatives than required to be considered
8 under [the Guidelines] or may not have considered alternatives in sufficient detail to respond to the details
9 of these Guidelines. In the latter case, it may be necessary to supplement these NEPA documents with this
10 additional information" (40 Code of Federal Regulations [CFR] section 230.10(a)(4)). In light of this
11 statement in the Guidelines, and because the Project purpose statement under NEPA and the Guidelines
12 are not necessarily identical, the Corps has reviewed and refined the Project purpose to ensure it meets the
13 standards of the Guidelines.

14 For CWA section 404 purposes, the Draft Section 404(b)(1) Alternatives Analysis, to be included as an
15 appendix in the Final EIS/EIR, provides the following statement of basis and overall project purpose:

16 The basic project purpose comprises the fundamental, essential, or irreducible purpose of
17 the proposed action, and is used by the Corps to determine whether an applicant's project
18 is water dependent (i.e., whether it requires access or proximity to or siting within a
19 special aquatic site). The basic project purpose for the SCH Project is aquatic habitat
20 restoration. The SCH Project is water dependent. Therefore, the rebuttable presumptions
21 that there is a less damaging practicable alternative for the proposed activity that would
22 not affect jurisdictional waters do not apply (40 CFR section 230.10(a)(3)).

23 The overall Project purpose is to develop a range of aquatic habitats that will support fish and wildlife
24 species dependent on the Salton Sea in Imperial County, California.

25 ES1.5 SPECIES SUPPORTED BY THE SPECIES CONSERVATION HABITAT 26 PROJECT

27 ES1.5.1 Aquatic Species

28 Aquatic organisms that currently or in the recent past comprise the food web supporting fish in the Salton
29 Sea include phytoplankton, zooplankton, and benthic and water column macroinvertebrates.
30 Macroinvertebrate species include diptera (flies), corixids (water boatmen), benthic polychaetes such as
31 pileworms (*Neanthes succinea*) and a spionid worm (*Streblospio benedicti*), amphipods (*Gammarus*
32 *mucronatus* and *Corophium louisianum*), ostracods (seed shrimp), and a barnacle (*Balanus amphitrite*)
33 (Detwiler et al. 2002; Miles et al. 2009), while zooplankton is dominated by copepods (Miles et al. 2009).
34 These or other species with similar habitat functions and food-web functions would become established or
35 would be introduced into the SCH ponds.

36 Although a number of fish species were present in the Salton Sea while salinity was in the range of
37 marine waters, those fish were introduced for recreational fishing and not as forage for birds. Tilapia that
38 inhabit the Sea are hybrids between the Mozambique tilapia (*Oreochromis mossambicus*) and Wami
39 River tilapia (*O. urolepis hornorum*) (Costa-Pierce 2001). These fish, called California Mozambique
40 hybrids ("Mozambique hybrid tilapia"), are currently the most abundant fish in the Sea and have been
41 extensively used as forage by birds because their size range and location within the water column makes
42 them easily accessible.

1 To support piscivorous birds, the SCH Project would need to provide fish of a size and quantity that the
2 birds can use. Many of the plankton and macroinvertebrate components of the aquatic food web that
3 support the fish will be present in the water used to fill the SCH ponds and would multiply there. For
4 species of macroinvertebrates that are no longer present or present in very low numbers (e.g., pileworms
5 and barnacles), inoculation with those species (or species with similar ecological functions) would be
6 considered. Fish species that are currently present, or have been present in the past, and that would be
7 suitable for the SCH ponds include several species and hybrids of tilapia, sailfin molly (*Poecilia*
8 *latipinna*), and threadfin shad (*Dorosoma petenense*). These species have been selected as the most
9 likely to survive and have the least potential for adverse effects on the desert pupfish (*Cyprinodon*
10 *macularius*), which is a protected species. Other species could also be used, particularly if some of these
11 do not become abundant enough to support bird foraging.

12 **ES1.5.2 Piscivorous Birds**

13 The SCH ponds are designed to accommodate those piscivorous bird species that will experience
14 significant declines when the quality of Salton Sea habitat deteriorates substantially in the near future
15 (i.e., American white pelican (*Pelecanus erythrorhynchos*), Black skimmer (*Rynchops niger*), Caspian
16 tern (*Hydroprogne caspia*), Double-crested cormorant (*Phalacrocorax auritus*), and Gull-billed tern
17 (*Gelochelidon nilotica*). For many of these species, a significant proportion of their population uses the
18 Sea. If the amount of habitat used by these species at the Sea were substantially reduced, some individuals
19 could use other habitats in the region up to their capacity, but it is unlikely that all of the piscivorous birds
20 using the Sea could find suitable habitat elsewhere because it is sparsely available in this geographic
21 region.

22 The SCH ponds would also benefit other bird species, such as the eared grebe, western snowy plover
23 (*Charadrius alexandrinus nivosus*), ruddy duck (*Oxyura jamaicensis*), black tern (*Chlidonias niger*), and
24 California brown pelican (*Pelecanus occidentalis*). These species are either not piscivorous (invertebrate
25 prey is easier to support than fish) and/or only a small proportion of their population depends on the
26 Salton Sea. Also, some subspecies or population segments would likely use the restored habitats as well,
27 such as the least tern (interior subspecies of the California least tern or Mexican least tern, whichever is
28 present at the Salton Sea) and the Baja population of the California brown pelican, which uses the Sea as
29 a post-breeding site. While the SCH ponds would provide ancillary benefits for these species, they are not
30 the principal species served by the SCH Project and, therefore, their habitat needs would not be
31 considered criteria for design.

32 **ES1.6 ENVIRONMENTAL REVIEW PROCESS**

33 Public scoping was conducted to help identify areas of concern and specific issues that should be
34 addressed in the EIS/EIR. In compliance with NEPA, the Corps issued a Notice of Intent for the
35 preparation of the EIS/EIR on June 23, 2010. In compliance with CEQA, the Natural Resources Agency
36 issued a Notice of Preparation for the EIS/EIR on June 21, 2010. These notices are included in Appendix
37 A, Scoping Process. The notices were sent to over 1,300 responsible and involved agencies and interested
38 organizations and individuals. To solicit additional comments on the scope and content of the EIS/EIR,
39 the lead agencies held four public scoping meetings at Palm Desert, Thermal, Calipatria, and Brawley on
40 July 7 and 8, 2010. The four scoping meetings attracted over 50 people, some of whom provided oral
41 comments on the scope and content of the EIS/EIR, including project design and impacts. Twelve written
42 responses to the notices were received during the comment period which ended on July 24, 2010. The
43 most common topics mentioned included the project description, water supplies, adaptive management,
44 siting criteria, baseline conditions, resource-specific impacts and mitigation measures, as well as impacts
45 of expanding the range of species that would be benefited by the SCH Project, addressing issues
46 associated with selenium exposure, and the need to address the potential creation of breeding habitat for

1 mosquitoes, which are disease vectors. Additionally, a number of commenters, including the U.S.
2 Environmental Protection Agency, Reclamation, San Diego County Water Authority, and a group of non-
3 governmental organizations, expressed overall support for the SCH Project. The information from
4 scoping was used to shape the scope, content, and level of detail in the EIS/EIR and in all phases of
5 document preparation. A complete description of the scoping process and comments received is included
6 in the scoping report provided in Appendix A.

7 **ES1.7 PURPOSE OF THE EIS/EIR**

8 This joint EIS/EIR is intended to identify to agency decision makers and the public the potential range of
9 impacts associated with the implementation of the Project alternatives, including significant and
10 beneficial environmental impacts. As described below, each of the lead agencies has independent
11 regulatory compliance needs that are served by this EIS/EIR.

12 **ES1.7.1 NEPA and the Purpose of an EIS**

13 NEPA requires decision makers from Federal agencies to document and consider the impacts on the
14 environment from their actions before making decisions and take actions that protect, restore, and
15 enhance the environment. An EIS is prepared when an agency determines that an action could result in
16 one or more significant impacts on the environment in order to provide a full disclosure of anticipated
17 impacts. The EIS informs decision-makers and the public of reasonable alternatives that would avoid or
18 minimize significant impacts or enhance the quality of the human environment.

19 **ES1.7.2 CEQA and the Purpose of an EIR**

20 CEQA requires state and local agency decision makers to consider the environmental consequences of
21 their actions. An EIR is prepared when such agencies determine that a project has the potential to result in
22 one or more significant environmental impacts. The purpose of an EIR is to identify the environmental
23 impacts resulting from a project, identify alternative ways of implementing a project that could reduce or
24 avoid significant impacts, and identify ways in which significant impacts can be reduced or avoided.
25 When feasible mitigation measures do not exist, a project may still be carried out if the approving agency
26 finds that economic, legal, social, technological, or other benefits outweigh the unavoidable significant
27 impacts.

28 **ES1.8 INTENDED USES OF THE DRAFT EIS/EIR**

29 The Draft EIS/EIR has been prepared in accordance with applicable Federal and state environmental
30 statutes, regulations, and policies and is intended to inform Federal and state decision makers regarding
31 the potential impacts of the Project alternatives and help them identify the preferred alternative. The Draft
32 EIS/EIR is an informational document and does not recommend approval or denial of the Project. The
33 Draft EIS/EIR is being provided to the public in order to obtain comments on the scope and impacts of
34 the Project alternatives. A Final EIS/EIR will be prepared that takes into consideration comments
35 received from agencies, organizations, and individuals; and responses to each comment will be provided.
36 The Final EIS/EIR will be the basis for decision making by the Corps, the Natural Resources Agency, and
37 other concerned agencies.

38 **ES1.8.1 Corps' Use of the EIS/EIR**

39 The Corps will use this EIS/EIR in determining whether to issue a Department of the Army permit for the
40 SCH Project under section 404 of the CWA. The EIS/EIR will also support the Corps' consultations with
41 the California State Historic Preservation Office regarding potential impacts on cultural resources and
42 with the U.S. Fish and Wildlife Service (USFWS) regarding potential impacts on endangered species. The

1 Corps will issue a Record of Decision that documents its decision on the preferred alternative pursuant to
2 its regulatory authority under section 404 of the CWA.

3 **ES1.8.2 Natural Resources Agency's Use of the EIS/EIR**

4 The Natural Resources Agency will use the EIS/EIR in deciding whether to approve and implement the
5 preferred alternative and also will use the EIS/EIR as the basis for its applications for approval under
6 section 401 and 404 of the Clean Water Act and other required permits. The Natural Resources Agency
7 will certify the EIR, as appropriate, and issue a Notice of Completion, Findings of Fact, and Statement of
8 Overriding Considerations (if necessary) that will document its decision regarding the adequacy of the
9 EIR.

10 **ES1.8.3 Cooperating, Responsible, and Trustee Agency Actions**

11 Under NEPA, cooperating agencies are agencies other than the lead agency that have discretionary
12 authority over a proposed action, jurisdiction by law, or special expertise with respect to the
13 environmental impacts expected to result from an action. The U.S. Bureau of Reclamation is a
14 cooperating agency for the preparation of this EIS/EIR and has special expertise related to restoration
15 planning, as well as jurisdiction by law over lands located near the Project area. The USFWS also is a
16 cooperating agency because portions of the ponds at the New River sites would be located on land that is
17 part of Sonny Bono Salton Sea National Wildlife Refuge and managed by the USFWS.

18 Under CEQA, responsible agencies are all agencies other than the lead agency that have discretionary
19 approval power over a project. DFG will use the EIS/EIR in deciding whether to issue a Streambed
20 Alteration Agreement under section 1602 or 1605 of the California Fish and Game Code and Incidental
21 Take Permit under section 2081 of the California Endangered Species Act. Imperial Irrigation District
22 (IID) also is a responsible agency because the SCH Project primarily would be located on land that is
23 owned by IID. The Colorado River Basin Regional Water Quality Control Board is a responsible agency
24 because it would be required to issue a Clean Water Act section 401 water quality certification.

25 The California State Lands Commission (SLC) is a trustee agency, defined in section 15386 of the CEQA
26 Guidelines as "...a state agency having jurisdiction by law over natural resources affected by a project
27 which are held in trust for the people of the State of California." The SLC will use the EIS/EIR in
28 determining whether to issue a lease agreement for impacts on the Salton Sea, for any portion of the SCH
29 Project within its jurisdiction. The SLC has determined that one parcel included in the potential SCH
30 Project sites is within its jurisdiction. Parcel 020-010-030 is located within the Alternatives 4 and 6 sites,
31 and its use would require a lease agreement with the SLC.

32 **ES1.9 REQUIRED PERMITS AND CONSULTATIONS**

33 The following permits and consultations are expected to be required:

- 34 • Federal Clean Water Act section 404 Standard Individual Permit from the Corps;
- 35 • Federal Clean Water Act section 401 water quality certification from the Colorado River Basin
36 Regional Water Quality Control Board;
- 37 • National Historic Preservation Act section 106 consultation with State Historic Preservation Office;
- 38 • Federal Endangered Species Act section 7 consultation with the USFWS;
- 39 • California Fish and Game Code section 1602 or 1605 Streambed Alteration Agreement from DFG;
- 40 • California Endangered Species Act section 2081 Incidental Take Permit from DFG;

- 1 • California SLC lease agreement for impacts on the Salton Sea for the use of parcel 020-010-030; and
- 2 • IID Board approval of the SCH Project lease agreement.

3 Additionally, the Imperial County Air Pollution Control District would require preparation of a Fugitive
4 Dust Control Plan under Regulation VIII, Fugitive Dust Rules (800–806). Easements would be required
5 from landowners for Project facilities during construction and operations. Haul permits and encroachment
6 permits may be required for the use of area roadways during construction.

7 ES1.10 SCOPE AND CONTENTS OF THE DRAFT EIS/EIR

8 This Draft EIS/EIR includes all of the sections required by NEPA and CEQA. The scope of the Federal
9 review is normally defined by 33 CFR part 325, Appendix B, which states: "...the district engineer
10 should establish the scope of the NEPA document to address the impacts of the specific activity regarding
11 the Department of the Army permit and those portions of the entire project over which the district
12 engineer has sufficient control and responsibility to warrant Federal review."

13 Corps regulations require the Corps to determine if their "scope of review" or "scope of analysis" should
14 be expanded to account for indirect and/or cumulative effects of the issuance of a permit (33 CFR part
15 325, Appendix B). Typical factors considered in determining "sufficient control and responsibility"
16 include:

- 17 • Whether or not the activity constitutes merely a link in a corridor-type project;
- 18 • Whether aspects of the upland facility in the immediate vicinity of the regulated activity affect the
19 location and configuration of the regulated activity;
- 20 • Extent to which the entire project will fall within Corps jurisdiction; and
- 21 • Extent of Federal cumulative control and responsibility.

22 Based on 33 CFR part 325, Appendix B, the appropriate scope of analysis for the Federal review of the
23 selected action consists of the entire Project footprint.

24 Additionally, U.S. Environmental Protection Agency section 404(b)(1) Guidelines require the Corps to
25 issue a permit only for the "least environmentally damaging practicable alternative," which is the most
26 practicable alternative that would result in the least damage to aquatic resources and is not contrary to
27 public interest. The factors that influence whether an alternative is practicable include cost, logistics,
28 technology, and the ability of the alternative to achieve the overall project purpose. The section 404(b)(1)
29 Guidelines focus on the impacts on the aquatic environment of discharges of dredged or fill material in
30 waters of the U.S. As such, the scope of the section 404(b)(1) analysis is typically narrower than that of
31 the NEPA analysis and could reach different conclusions regarding the practicability of an alternative.

32 The section 404(b)(1) Guidelines (40 CFR section 230) state that no discharge of dredged or fill material
33 shall be permitted if there is a practicable alternative to the proposed discharge that would have a less
34 significant impact on the aquatic ecosystem, so long as the alternative does not have other significant
35 environmental consequences (40 CFR section 230.10[a]). A section 404(b)(1) evaluation typically
36 includes the following type of analysis:

- 37 • Factual determinations (e.g., on the physical substrate, water circulation, fluctuation, and salinity,
38 suspended particulates/turbidity, contaminants, aquatic ecosystem and organisms, proposed disposal
39 sites, and cumulative effects on the aquatic ecosystem);

- 1 • Findings of compliance or noncompliance with restrictions on discharge, including evaluation of the
2 availability of practicable alternatives that would have a less significant impact on the aquatic
3 ecosystem, and compliance with a variety of regulations (e.g., applicable state water quality
4 standards, toxic effluent standards or prohibitions under section 307 of the CWA, the Federal
5 Endangered Species Act, and the Marine Protection, Research and Sanctuaries Act);
- 6 • Identification of practical steps taken to minimize potential significant impacts of the discharge on the
7 aquatic ecosystem; and
- 8 • Conclusion about the compliance of the proposed Project with the section 404(b)(1) Guidelines.

9 The information presented in this Draft EIS/EIR specific to impacts on the aquatic environment would be
10 used by the Corps as part of any proposed permit action subject to section 404 of the CWA.

11 ES1.11 ALTERNATIVES CONSIDERED IN THE DRAFT EIS/EIR

12 The alternatives being considered in the EIS/EIR are as follows; the ponds would be supplied with a
13 combination of river water and seawater in order to achieve the desired salinity range:

- 14 • **Alternative 1 – New River, Gravity Diversion + Cascading Ponds¹**: 3,130 acres of ponds
15 constructed on either side of the New River (East New and West New), upstream gravity diversion of
16 river water, and independent and cascading pond units.
- 17 • **Alternative 2 – New River, Pumped Diversion**: 2,670 acres of ponds constructed on either side of
18 the New River (East New, West New, and Far West New), pumped river diversion at the SCH ponds,
19 and independent ponds.
- 20 • **Alternative 3 – New River, Pumped Diversion + Cascading Ponds**: 3,770 acres of ponds
21 constructed on either side of the New River (East New, West New, and Far West New), pumped
22 diversion of river water, and independent ponds extended to include Far West New and cascading
23 pond units. Alternative 3 is the Natural Resources Agency’s preferred alternative. The Corps has not
24 yet identified a preferred alternative among the alternatives evaluated by the Draft EIS/EIR.
- 25 • **Alternative 4 – Alamo River, Gravity Diversion + Cascading Pond**: 2,290 acres of ponds
26 constructed on the north side of the Alamo River (Morton Bay), gravity river diversion upstream of
27 the SCH ponds, with independent ponds and a cascading pond unit.
- 28 • **Alternative 5 – Alamo River, Pumped Diversion**: 2,080 acres of ponds constructed on the north
29 side of the Alamo River (Morton Bay and Wister Beach), pumped river diversion at the SCH ponds,
30 and independent pond units.
- 31 • **Alternative 6 – Alamo River, Pumped Diversion + Cascading Ponds**: 2,940 acres of ponds
32 constructed on the north side of the Alamo River (Morton Bay, Wister Beach), pumped river
33 diversion at the SCH ponds with independent and cascading pond units.

34 The No Action Alternative also is considered in this analysis, as required by NEPA and CEQA. Under the
35 No Action Alternative, the Corps would not issue a section 404 permit for the SCH Project, and no
36 components of the SCH Project would be constructed. The No Action Alternative is intended to reflect
37 existing conditions (those present at the time the Notice of Preparation was issued) plus changes that are
38 reasonably expected to occur in the foreseeable future if none of the SCH Project alternatives is
39 implemented.

¹ All of the alternatives include independent ponds; thus, the name of the alternative reflects those ponds that also include cascading ponds.

ES1.12 SUMMARY OF IMPACTS

The impacts of the SCH Project alternatives on each resource evaluated in this Draft EIS/EIR were compared to both the existing environmental conditions, as well as those that would occur under the No Action Alternative (Table ES-1). For many resources no substantive differences existed between those two scenarios, either because impacts would cease upon the completion of construction, in which case the future conditions would not be relevant, or because future changes at the Salton Sea would not be relevant to the impact analysis (e.g., the amount of noise generated by pumps used to divert river water to the SCH ponds would not be affected by changes in the salinity or surface water elevation of the Salton Sea). For resources such as biological resources and recreation, the benefits of the Project alternatives would be greater when compared to the No Action Alternative because the increasing salinity and decreasing water surface elevation of the Salton Sea will result in the collapse of the Sea's ecosystem, and the SCH Project would help offset some of the impacts from this occurrence. The beneficial impacts of the Project 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.

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Aesthetics								
Impact AES-1: Project construction could temporarily degrade the scenic quality, character, or scenic vistas of the site and surrounding areas.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AES-2: The SCH ponds would enhance the scenic quality and character of the site and surrounding areas.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact AES-3: Other SCH facilities would be compatible with the existing character of the surrounding area.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AES-4: Some construction activities may occur at night, requiring lighting.	Existing Condition	L	L	L	S	S	S	MM AES-1: Shield and direct construction lights away from Red Hill Park.
	No Action	L	L	S	S	S	S	Same as Existing Condition
Agricultural Resources								
Impact AG-1: Construction of the diversion and conveyance facilities and brackish water pipeline maintenance would temporarily disrupt agricultural production but would not permanently convert Farmland to nonagricultural use.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact AG-2: Construction of the sedimentation basin would result in the permanent conversion of a small amount of Farmland to nonagricultural use.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required
Impact AG-3: Construction of the sedimentation basin potentially would result in the permanent conversion of Williamson Act contract land to nonagricultural use.	Existing Condition	S	O	O	S	O	O	MM AG-1: Avoidance of Williamson Act land or payment of Williamson Act cancellation fees.
	No Action	S	O	O	S	O	O	Same as Existing Condition
Air Quality								
Impact AQ-1: Emissions from Project construction and maintenance are accounted for in applicable air quality plans and would not conflict with or obstruct their implementation.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AQ-2: The SCH ponds would cover more playa than would be exposed as a result of the Project, reducing the potential for wind-blown fugitive dust.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact AQ-3a: The Project would contribute incrementally to violations of Federal and state O ₃ , PM ₁₀ , and PM _{2.5} standards and exceed ICAPCD's NO _x and PM ₁₀ thresholds during construction (applies to Alternatives 1, 2, and 3).	Existing Condition	U	U	U	—	—	—	MM AQ-1: Implement fugitive PM ₁₀ control measures. MM AQ-2: Implement diesel control measures.
	No Action	U	U	U	—	—	—	Same as Existing Condition
Impact AQ-3b: The Project would contribute incrementally to violations of Federal and state O ₃ , PM ₁₀ , and PM _{2.5} standards and exceed ICAPCD's NO _x thresholds during construction (applies to Alternatives 4, 5, and 6).	Existing Condition	—	—	—	U	U	U	MM AQ-1: Implement fugitive PM ₁₀ control measures. MM AQ-2: Implement diesel control measures.
	No Action	—	—	—	U	U	U	Same as Existing Condition
Impact AQ-4: The Project would contribute incrementally to violations of Federal and state O ₃ , PM ₁₀ , and PM _{2.5} standards during operations but would not exceed any regulatory thresholds.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AQ-5: Project construction would result in a cumulatively considerable/significant net increase in	Existing Condition	U	U	U	U	U	U	MM AQ-1: Implement fugitive PM ₁₀ control measures. MM AQ-2: Implement diesel

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives

Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
emissions.								control measures.
	No Action	U	U	U	U	U	U	Same as Existing Condition
Impact AQ-6: Project emissions from construction and maintenance would not expose sensitive receptors to substantial pollutant concentrations.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AQ-7: The Project could result in localized odors during construction, operations, and maintenance.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact AQ-8: The Project would have a minor effect on the microclimate near the Salton Sea.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Biological Resources								
Impact BIO-1a: Project construction and operation would affect habitat and individuals of desert pupfish and several special-status bird species.	Existing Condition	S	S	S	S	S	S	MM BIO-1: Prepare and implement a desert pupfish protection and relocation plan. MM BIO-2: Prepare and implement a preconstruction/maintenance survey plan for bird species. MM BIO-3: Conduct noise measurements and implement noise attenuation measures, if needed. MM BIO-4: Design interception ditches to avoid alteration of water levels in adjacent marshes.
	No Action	S	S	S	S	S	S	Same as Existing Condition
Impact BIO-1b: Project construction and operation would have minor effects on habitat and individuals of several special-status bird and mammal species.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact BIO-1c: Project operation would provide habitat for desert pupfish and several special-status bird species.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact BIO-2: Project construction and operation would cause a temporary disturbance or loss of riparian habitat and/or sensitive habitat.	Existing Condition	S	S	S	S	S	S	MM BIO-5: Prepare and implement a Habitat Protection, Mitigation, and Restoration Program.
	No Action	S	S	S	S	S	S	Same as Existing Condition
Impact BIO-3a: Project construction would result in temporary disturbance of Federal Waters of the U.S. and minimal effects on wetlands.	Existing Condition	L	L	L	L	L	L	MM BIO-4 MM BIO-5
	No Action	L	L	L	L	L	L	Same as Existing Condition
Impact BIO-3b: Project operation would increase the amount of Federal Waters of the U.S.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact BIO-4: Project construction and operation would not interfere with movement of fish and wildlife species, but construction could remove snags for colonial nesting birds.	Existing Condition	L	L	L	L	L	L	MM BIO-5
	No Action	L	L	L	L	L	L	Same as Existing Condition
Impact BIO-5a: Project construction and operation could affect nesting by some common bird species and introduction of invasive species.	Existing Condition	S	S	S	S	S	S	MM BIO-2 MM BIO-3 MM BIO-6: Clean equipment prior to site delivery.
	No Action	S	S	S	S	S	S	Same as Existing Condition
Impact BIO-5b: Project construction and operation would have minor effects on common fish (native and nonnative), wildlife species, and native plant communities.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact BIO-5c: Project construction and operation would benefit common fish (native and nonnative) and wildlife species.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives

Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Cultural Resources								
Impact CR-1: Ground-disturbing activities could change the significance of historical resources, damage unique archaeological resources, disturb human remains, eliminate important examples of the major periods of California history or prehistory, and adversely affect historic properties.	Existing Condition	S	S	S	S	S	S	MM CR-1: Prepare and implement a survey plan and an inadvertent discovery plan
	No Action	S	S	S	S	S	S	Same as Existing Condition
Energy Consumption								
Impact EN-1: Pumping would require power for the duration of the Project.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Environmental Justice								
Impact EJ-1: Construction air emissions would have a disproportionate impact on minority and low-income populations.	Existing Condition	U	U	U	U	U	U	MM AQ-1: Implement fugitive PM ₁₀ control measures. MM AQ-2: Implement diesel control measures.
	No Action	U	U	U	U	U	U	Same as Existing Condition
Impact EJ-2: Ground-disturbing activities could expose and damage undiscovered prehistoric and historic resources and result in the inadvertent discovery of human remains.	Existing Condition	S	S	S	S	S	S	MM CR-1: Prepare and implement a survey plan and an inadvertent discovery plan.
	No Action	S	S	S	S	S	S	Same as Existing Condition
Geology, Soils, and Minerals								
Impact GEO-1: A seismic event could cause the berms to fail and damage the water diversion/conveyance structures.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact GEO-2: Best management practices would be used to prevent soil erosion and the loss of topsoil during construction.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact GEO-3: The Project would be located on unstable soils, potentially affecting the stability of the berms.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact GEO-4: Construction would require the use of rock as riprap or pond substrate.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Greenhouse Gas Emissions/Climate Change								
Impact GHG-1: The Project would generate minor amounts of GHG emissions during construction and operations, both directly and indirectly, that would not have a significant impact on the environment.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact GHG 2: The Project would generate GHG emissions during construction and operations, but would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Hazards and Hazardous Materials								
Impact HAZ-1: Hazardous materials used during construction could be released into the environment.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HAZ-2: Project construction could encounter contaminated soils during soil excavation.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HAZ-3: The ponds would attract birds in proximity to low-level military training routes.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HAZ-4: Increased traffic and construction near roadways would not impair the implementation of an adopted emergency response or evacuation plan.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HAZ-5: Project construction could increase the risk of wildland fire.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives

Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact HAZ-6: Project construction could release air and dust-borne disease causing viruses.	Existing Condition	S	S	S	S	S	S	MM HAZ-1: Worker training will be provided to workers who may be exposed to air-borne diseases during excavation activities. Training will include recognizing symptoms and use of personal protective equipment.
	No Action	S	S	S	S	S	S	
Impact HAZ-7: Project operation could increase breeding habitat for mosquito vectors but implementation of the Mosquito Control Plan would present threats to public health.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HAZ-8: Selenium and dichlorodiphenyldichloroethylene (DDE) levels in the SCH ponds could cause increased selenium and DDE levels in sport fish and waterfowl using the ponds.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Hydrology and Water Quality								
Impact HYD-1: Project implementation would cause a reduction in the Salton Sea's water surface elevation.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HYD-2: Project implementation would increase the Salton Sea's salinity.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HYD-3: Project operations would cause changes in Salton Sea water quality but would not violate established standards.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HYD-4: Construction of the SCH ponds would temporarily degrade water quality at the Salton Sea.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact HYD-5: Berm failure could increase erosion and sedimentation of	Existing Condition	L	L	L	L	L	L	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
the adjacent river and the Salton Sea.	No Action	L	L	L	L	L	L	None required
Land Use								
Impact LU-1: Given the implementation of mitigation measures identified in other sections of this Environmental Impact Statement/Environmental Impact Report, the SCH Project would be compatible with the Imperial County General Plan and other applicable land use plans or policies.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact LU-2: Restoration of habitat for birds that are dependent on the Salton Sea would not result in substantive conflicts with existing adjacent land uses.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact LU-3: The Project would be designed to minimize conflicts with future planned land uses.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Noise								
Impact NOI-1: Daytime construction and maintenance activities would cause a temporary increase in noise levels near the Project sites.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact NOI-2: Dredging could extend beyond the hours typically allowed by Imperial County.	Existing Condition	L	L	L	S	S	S	MM NOI-1: Avoid nighttime construction near Red Hill Park.
	No Action	L	L	L	S	S	S	Same as Existing Condition
Impact NOI-3: Construction truck traffic at some locations on local roads would cause a temporary increase in noise near residents.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact NOI-4: Noise from installation of the seawater pipeline and associated pump could exceed Imperial County's construction thresholds.	Existing Condition	O	O	O	S	S	O	MM NOI-2. Control noise from installation of the seawater pump and pipeline.
	No Action	O	O	O	S	S	O	Same as Existing Condition
Impact NOI-5: Noise from operation of the seawater pump could exceed	Existing Condition	O	O	O	S	O	O	MM NOI-3: Control operational noise from the

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives

Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Imperial County's thresholds at Red Hill Park.								seawater pump.
	No Action	O	O	O	S	O	O	Same as Existing Condition
Paleontological Resources								
Impact PALEO-1: Ground-disturbing activities could expose and damage undiscovered paleontological resources.	Existing Condition	S	S	S	S	S	S	MM PALEO-1: Prepare and implement a survey plan and a paleontological monitoring plan. MM PALEO-2: Conduct worker training. MM PALEO-3: Prepare and implement a paleontological resource data recovery plan.
	No Action	S	S	S	S	S	S	Same as Existing Condition
Population and Housing								
Impact POP-1: Out-of-town construction workers would cause a temporary, slight increase in Imperial County population.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact POP-2: Project operation would increase opportunities for passive recreational activity and research due at the SCH ponds, which could result in increased visitor days.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Public Services								
Impact PS-1: Construction and maintenance activities could result in increased demand for emergency services (police, fire, and trauma centers), as could increased use of the Project site by recreational visitors.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Recreation								
Impact REC-1: The SCH Project would create recreational opportunities at the pond sites.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Socioeconomics								
Impact SOC-1: Project construction and operations would cause an increase in local employment.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use.	Existing Condition	L	O	L	O	L	L	None required
	No Action	L	O	L	O	L	L	None required
Impact SOC-5: The SCH Project would result in the temporary loss of agricultural revenue due to construction and maintenance activities in the water pipeline right-of-way.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required
Impact SOC-6: Pipeline construction would require the temporary disruption of agricultural drains and canals.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required
Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Transportation and Traffic								
Impact TRAN-1: The SCH Project would increase traffic during construction and operations, but would not reduce the level of service of any roadways below the County of Imperial's standard (LOS C).	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact TRAN-2: Construction/maintenance equipment and tractor trailers could be present in areas used by farm equipment, but would not pose a substantial safety hazard.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Impact TRAN-3: Emergency vehicles would retain their ability to access the Project area during construction and operations despite increased traffic and construction near roadways.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required

Table ES-1 Summary of Impacts of the Salton Sea SCH Project Alternatives

Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Utilities and Service Systems								
UT-1: Dust suppression water would be required, but would not exceed supplies.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
UT-2: Construction and operations would generate solid waste requiring disposal in landfills.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required
Note: O = No Impact L = Less-than-Significant Impact S = Significant Impact, but Mitigable to Less than Significant U = Significant Unavoidable Impact B = Beneficial Impact								

1

2 ES1.13 COMPARATIVE IMPACTS OF THE PROJECT ALTERNATIVES

3 Table ES-2 compares impacts, by resource, for each of the six Project alternatives. In a number of cases,
 4 multiple categories of impacts would occur; that is, one resource could experience significant, less-than-
 5 significant, and beneficial impacts. Table ES-2 only shows the most adverse impact for purposes of
 6 comparison. As shown, impacts are generally comparable between alternatives. The primary differences
 7 are that those alternatives requiring a brackish water pipeline leading from the rivers (Alternatives 1 and
 8 4) would result in the permanent conversion of Important Farmland and significant impacts from the
 9 potential conversion of land under Williamson Act contracts for use as a sedimentation basin. More subtle
 10 differences result from the acreage that would be restored under each alternative. In general, those
 11 alternatives with greater acreage would have greater benefits to resources such as biological resources,
 12 aesthetics, recreation, and socioeconomics, but also would result in greater impacts on air emissions,
 13 energy demand, transportation impacts, and demand for public services.

14

Table ES-2 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

Table ES-2 Summary of Impacts, by Resource, of Each Project Alternative						
Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
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
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

1

2 ES1.14 ENVIRONMENTALLY PREFERABLE / ENVIRONMENTALLY SUPERIOR 3 ALTERNATIVE

4 The Council on Environmental Quality's NEPA Guidelines, section 1505.2(b) requires that, in cases
5 where an EIS has been prepared, the Record of Decision must identify all alternatives that were
6 considered, ". . . specifying the alternative or alternatives which were considered to be environmentally
7 preferable." The environmentally preferable alternative is the alternative that will promote the national
8 environmental policy as expressed in NEPA section 101. Ordinarily, this designation means the
9 alternative that causes the least damage to the biological and physical environment; the designation also
10 means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.
11 In addition, U.S. Environmental Protection Agency section 404(b)(1) Guidelines require the Corps to

1 issue a permit only for the least environmentally damaging practicable alternative, which is the most
2 practicable alternative that would result in the least damage to aquatic resources.

3 CEQA Guidelines section 15126.6 also requires the identification of the environmentally superior
4 alternative; if the No Action Alternative is considered environmentally superior, then an environmentally
5 superior alternative must be chosen from one of the Project alternatives. Significant, less than significant
6 impacts, and beneficial impacts all are considered when determining which alternative is environmentally
7 preferable/environmentally superior.

8 The No Action Alternative for the SCH Project is not considered environmentally superior. As discussed
9 in Section 1, Introduction, declining inflows in future years from various factors will result in collapse of
10 the Salton Sea ecosystem due to increasing salinity and other water quality issues, such as temperature,
11 eutrophication, and related anoxia and algal productivity. The SCH Project alternatives would restore a
12 portion of the habitat that will be lost under the No Action Alternative and are considered preferable.

13 Of the Project alternatives, those that would require gravity diversion of water from the New or Alamo
14 rivers (Alternatives 1 and 4, respectively) are not considered environmentally superior because
15 construction of the sedimentation basin would result in the permanent loss of Important Farmland and the
16 potential conversion of land under Williamson Act contracts to nonagricultural use, which is a significant
17 impact. These impacts would not occur under the alternatives requiring pumped diversion (Alternatives 2,
18 3, 5, and 6) because the sedimentation basins would be located within the footprint of the SCH ponds,
19 which would not be constructed on farmland. Of Alternatives 2, 3, 5, and 6, those located at the Alamo
20 River (Alternatives 5 and 6) are not considered environmentally superior for a variety of reasons. Alamo
21 River water includes higher levels of selenium than that of the New River. Although impacts from
22 selenium would be less than significant, selenium would have adverse effects on wildlife, and lower
23 levels would be preferable within the SCH ponds. Similarly, the Alamo River area is more geologically
24 active than the New River area (mud pots are present adjacent to and within the Project area east of the
25 Alamo River in Morton Bay), which could lead to an increased risk of berm failure. Although this impact
26 is not considered significant, it would not be desirable and would result in temporary, but adverse impacts
27 on SCH pond operation. The Alamo River area also is in a Known Geothermal Resource Area and known
28 geothermal resources diminish west of the New River. Although the SCH Project would not preclude
29 geothermal development, the New River area is considered preferable because the potential for conflicts
30 with geothermal development companies would be minimized. Thus, Alternatives 5 and 6 were
31 eliminated from consideration as the environmentally superior alternative.

32 Alternatives 2 and 3 would be located at the New River and would restore 2,670 and 3,770 acres of
33 habitat, respectively. Alternative 3 would cause somewhat greater impacts during construction (and
34 indirect air emissions during operations), but it would have greater long-term benefits because more
35 habitat would be restored. The long-term benefits would offset the short-term, incremental increase in
36 construction impacts (and incremental increases in power demand), and thus, Alternative 3 is considered
37 the environmentally preferable/environmentally superior alternative.

38 **ES1.15 PREFERRED ALTERNATIVE**

39 The Natural Resources Agency has identified Alternative 3 as the preferred alternative because it would
40 provide greater long-term benefits by restoring the greatest amount of habitat, while minimizing
41 environmental impacts to the extent feasible. The Corps has not yet identified a preferred alternative.

42 **ES1.16 AREAS OF KNOWN CONTROVERSY**

43 The following are potential areas of controversy.

- 1 • **Water Supply.** Environmental groups have suggested that river water alone is a more appropriate
2 water supply for the ponds instead than the combination of river water and seawater that is proposed.
3 This is intended to minimize the need for pumping seawater, which would reduce operations and
4 maintenance costs. Use of this water supply as a viable source is based on the premise that ecorisks
5 from selenium exposure would not be significantly greater than those that exist under present
6 conditions.
- 7 • **Method of Water Diversion.** Environmental groups have suggested that gravity diversion is
8 preferable to pumped diversion of river water in order to minimize operations and maintenance costs
9 and the demand for electrical power.
- 10 • **Potential Crop Loss.** Local farmers have expressed concern over the potential for crop loss at
11 neighboring farms due to the presence of birds at the SCH ponds. This issue is addressed in Section
12 3.19, Socioeconomics.
- 13 • **Potential for Bird Airstrikes.** The U.S. Navy has expressed concern that the SCH Project, by itself
14 and in combination with other projects, would attract and increase local bird populations and thus
15 cause an increase in the potential for bird strikes by aircraft from the Naval Air Facility El Centro
16 training ranges. This issue is addressed in Section 3.10, Hazards and Hazardous Materials.

17 ES1.17 ISSUES TO BE RESOLVED

18 The Corps has yet to identify its preferred alternative. The draft section 404(b)(1) alternatives analysis
19 will be completed and included in the Final EIS/EIR. Based on this analysis, the Corps will choose the
20 least environmentally damaging practicable alternative as the Corps' preferred alternative, which will be
21 subject to public comment.

22