

2 This Environmental Assessment/Mitigated Negative Declaration (EA/MND) has been
3 prepared by the Bureau of Reclamation (Reclamation) as the Federal lead agency
4 under the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.), and the
5 California State Lands Commission (CSLC) as the State lead agency under the
6 California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.),
7 to analyze and disclose the environmental effects associated with the proposed Mohave
8 Valley Conservation Area Backwater Project (Project). The Project would authorize
9 Reclamation, as the Federal implementing agency of the Lower Colorado River Multi-
10 Species Conservation Program (LCR MSCP) to create, maintain, and monitor a
11 backwater habitat on approximately 50 acres of a 149-acre parcel of State-owned
12 sovereign land within Moabi Regional Park (Park) to benefit species covered by the
13 LCR MSCP. The California Department of Fish and Wildlife (CDFW or Applicant), as a
14 State partner for implementation of the LCR MSCP, would be the lease holder.

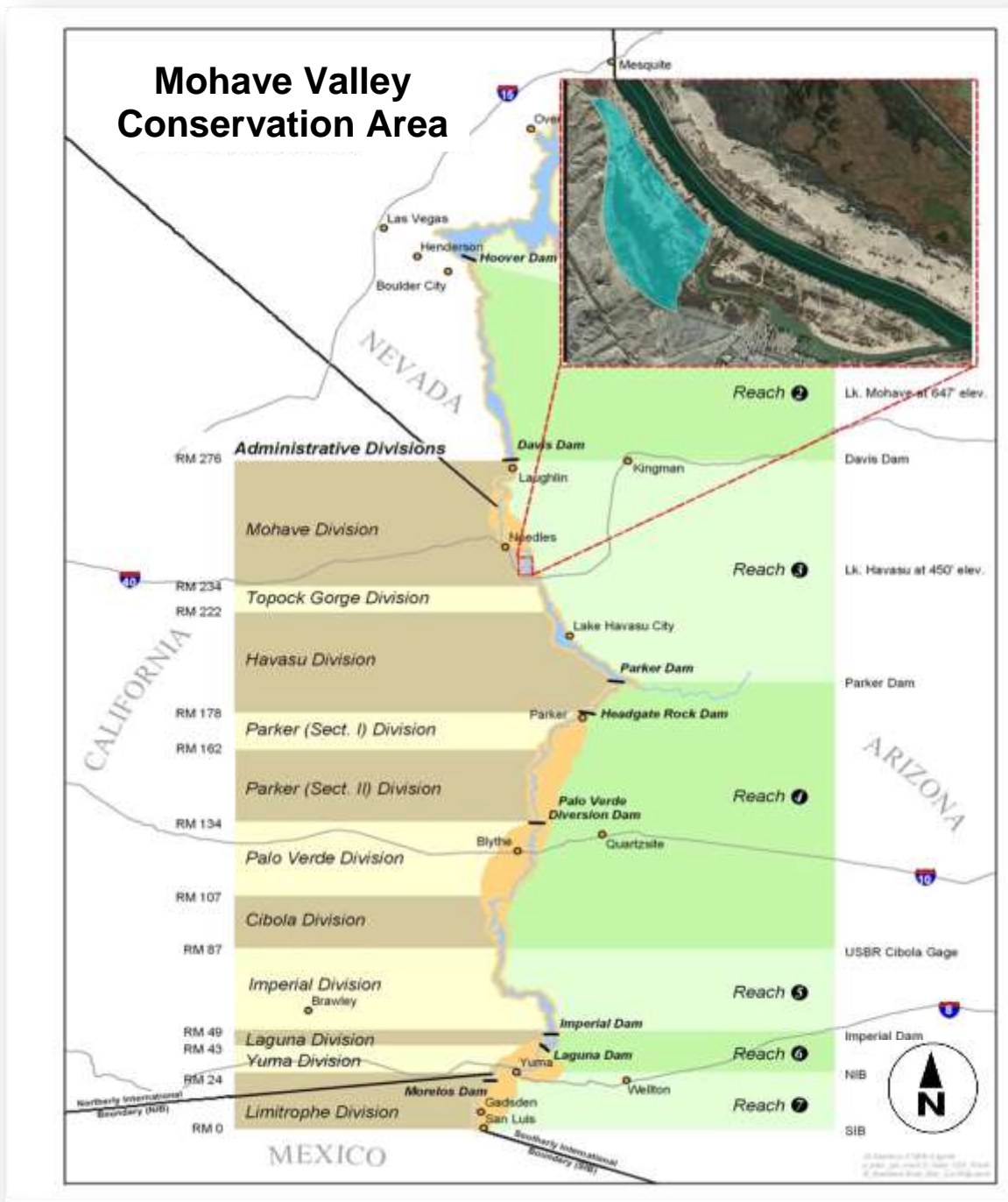
15 The proposed Project is located along the Colorado River (River) between River Miles
16 237 and 236. It is about 13 miles south of Needles, California in San Bernardino County
17 (County) (Figures ES-1 and ES-2). The 149-acre State-owned parcel is on the
18 California side of the River at the center of Section 36, Township 8 N, and Range 23 E,
19 San Bernardino Meridian and is currently leased to San Bernardino County (County).
20 The Project area, which is located within the historic floodplain of the River, remains
21 undeveloped and possesses the potential to be developed into connected backwater
22 habitat (Figure ES-2). Under the proposed Project, Reclamation would excavate soil
23 from the currently vacant parcel and construct a river inlet and outlet to create a
24 backwater channel and associated backwater habitat that contribute to the habitat
25 restoration requirements identified in the LCR MSCP.

26 Reclamation and CSLC prepared an EA/MND because, while the Initial Study identified
27 potentially significant impacts related to creating the backwater habitat, after analysis of
28 all the facts and circumstances, Reclamation and CSLC staffs believe that measures
29 have been incorporated into the Project proposal and agreed to by Reclamation and
30 CDFW that avoid or mitigate those impacts to a point where no significant impacts
31 would occur.

32 **BACKGROUND**

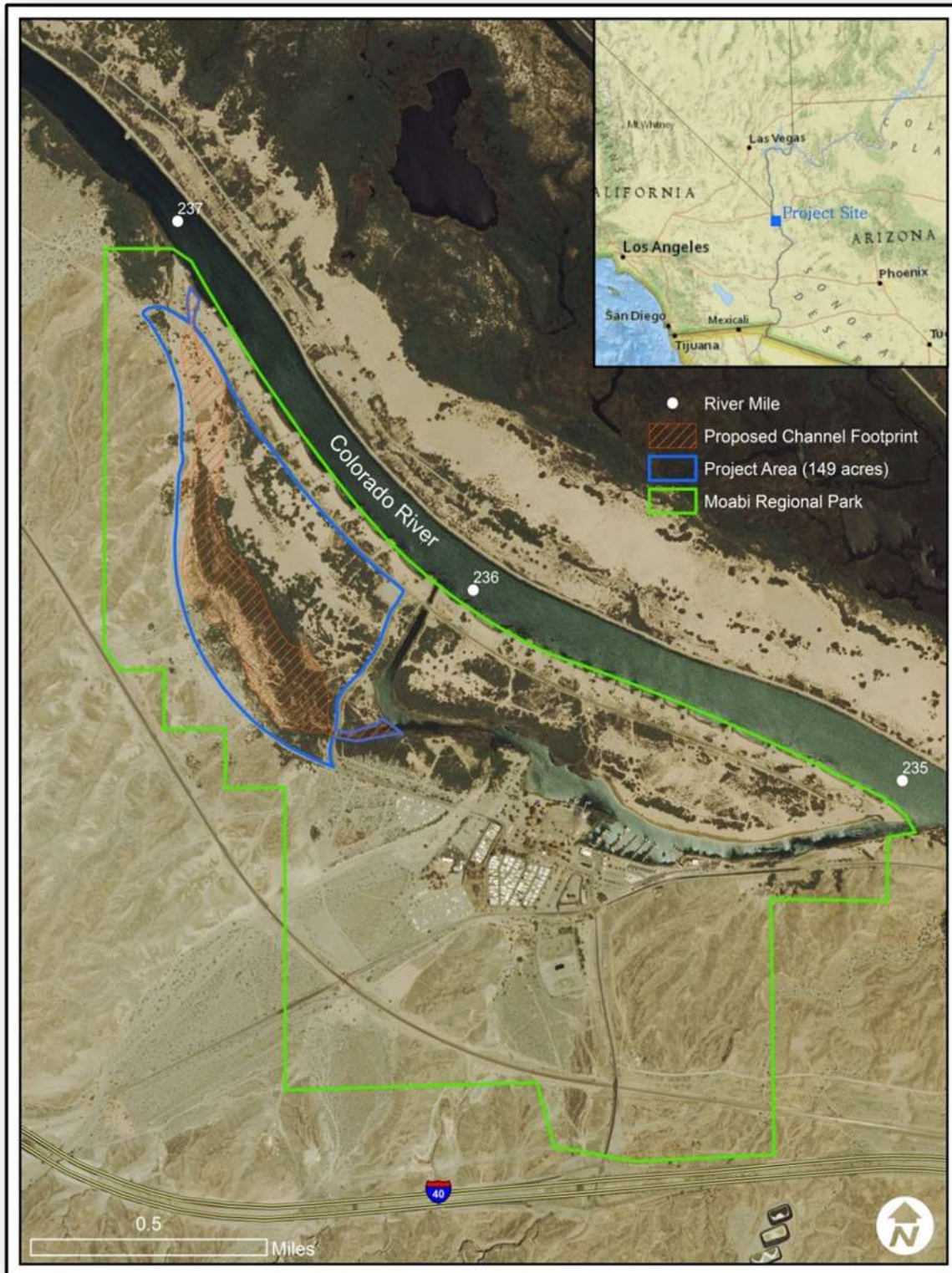
33 The LCR MSCP is a multi-stakeholder Federal and non-Federal partnership responding
34 to the need to balance the use of lower River water resources and the conservation of
35 native species and their habitats in compliance with the Endangered Species Act of
36 1973 (ESA; 16 U.S.C. § 1531 et seq.).

Figure ES-1. Project Area Vicinity Map



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Figure ES-2. Project Site Map



1 In April 1997, the U.S. Fish and Wildlife Service (USFWS) issued a Biological and
2 Conference Opinion (BO) to Reclamation covering routine operations and maintenance
3 activities along the River. As part of this BO, the USFWS called for stakeholders along
4 the lower Colorado River to develop and implement the LCR MSCP. This effort was
5 completed in 2005 after the approval of a Programmatic Environmental Impact
6 Statement/Environmental Impact Report (EIS/EIR) which evaluated the environmental
7 effects associated with implementation of the Habitat Conservation Plan (HCP) for the
8 LCR MSCP. The incidental take permits for the LCR MSCP issued under Section 10 of
9 the ESA for the non-Federal LCR MSCP partners and section 2081 of the California
10 Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.), and the BO issued to
11 Reclamation under Section 7 of the ESA require the Permittees (LCR MSCP) to
12 implement the HCP.

13 The LCR MSCP operates under the Water Accounting Agreement passed by Congress
14 as part of the Omnibus Public Land Management Act of 2009 (Public Law No. 111-11,
15 Title IX, Subtitle E, 123 Statute 991, 1327-29). The Omnibus Public Land Management
16 Act of 2009 permits Reclamation to create and manage conservation areas, which do
17 not contain any water entitlement from the Secretary of the Interior, by using River water
18 to meet the performance requirements of the LCR MSCP. Under the Water Accounting
19 Agreement, Reclamation shall not consider any resulting increase in evaporation or
20 percolation of lower Colorado River water to be a diversion or consumptive use.

21 The LCR MSCP is a long-term (50-year) plan consisting of conservation measures that
22 provide protection along the lower Colorado River from Lake Mead to the southerly
23 International Boundary with Mexico for 26 species currently threatened or endangered
24 and five species on the verge of becoming threatened or endangered. The LCR MSCP
25 anticipates development and/or protection of a minimum of 8,132 acres of habitat
26 consisting of a mosaic of cottonwood-willow (*Populus fremontii*), honey mesquite
27 (*Prosopis glandulosa*), marsh, and backwater components. The program uses adaptive
28 management principles to research and monitor species and habitats, and to adjust and
29 enhance management actions and science applications over the life of the program.
30 Under the guidance of the LCR MSCP's HCP, the program is tasked with creating 85
31 acres of connected backwater habitat between Davis and Parker Dams (Reach 3).

32 Reclamation is responsible for implementing the LCR MSCP over the 50-year term of
33 the program. The LCR MSCP is governed by a Steering Committee, which is an
34 unincorporated association of more than 50 water and power users, State, Federal,
35 local entities, and tribes. The Steering Committee works with Reclamation to coordinate
36 the implementation of the LCR MSCP.

37 Much of the bank line within this reach of the River is developed or runs through Topock
38 Gorge, which is composed of steep, rocky terrain that is unsuitable for LCR MSCP
39 development based on site access restraints and landownership restrictions. However,
40 within the Park south of Needles, CA, an approximately 149-acre parcel of land residing
41 within the historic floodplain of the lower Colorado River possesses the landscape
42 characteristics to allow for development of a connected backwater.

1 PROPOSED PROJECT

2 For this Project, Reclamation proposes to design, create, monitor, and maintain
3 approximately 50 acres of backwater habitat within a 149-acre parcel owned in fee by
4 the CSLC that is currently part of the Park. The remaining 99 acres would be used as a
5 staging area during construction. Once construction of the Project is completed, the
6 remaining 99 acres would continue to be operated and maintained as a designated Off-
7 Highway Vehicle (OHV) area by the County.

8 Following the guidelines of the LCR MSCP HCP, the backwater must be connected to
9 the River so that it is accessible to native fish from the main stem, and contributes to the
10 conservation of native fishes and a mosaic of marsh, riparian, and upland vegetation
11 types on the Colorado River. The LCR MSCP requires 360 acres of backwater for
12 bonytail (*Gila elegans*) and razorback sucker (*Xyrauchen texanus*) including, 85 acres
13 of backwater specifically for flannelmouth sucker (*Catostomus latipinnis*). HCP
14 Conservation Measure FLSU1 states, "Of the 360 acres of LCR MSCP-created
15 backwaters, at least 85 acres will be created in Reach 3 with water depth, vegetation,
16 and substrate characteristics that provide the elements of flannelmouth sucker habitat."
17 The development of the backwater would connect to and induce additional flow through
18 the existing Park Moabi Channel, an existing channel within the Park dredged in 1961 to
19 create a deep water area to improve boat launching and the sport fishery. Other listed
20 species, including the razorback sucker may also benefit from the backwater creation
21 since they are already in the River and the Park Moabi Channel.

22 Implementation of the Project would allow the LCR MSCP to work towards satisfying the
23 HCP requirements for need to create backwater habitat between Davis and Parker
24 Dams in Reach 3 of the River, and ensure continued ESA compliance for Federal and
25 non-Federal entities operating on the River. The Project would satisfy the LCR MSCP
26 objectives by including the following design elements:

- 27 • Connected backwater channel from the River to the Park Moabi channel for
28 native fish;
- 29 • Water control structures to control flows, provide for water elevation stabilization,
30 and exchange water from the River;
- 31 • Roadway/bridge crossings for vehicle access;
- 32 • Primitive boat ramps intended for Project management (i.e., not public
33 recreation) purposes; and
- 34 • Landscape re-contouring and habitat restoration to create marsh, riparian, and
35 upland habitat for use by other wildlife species.

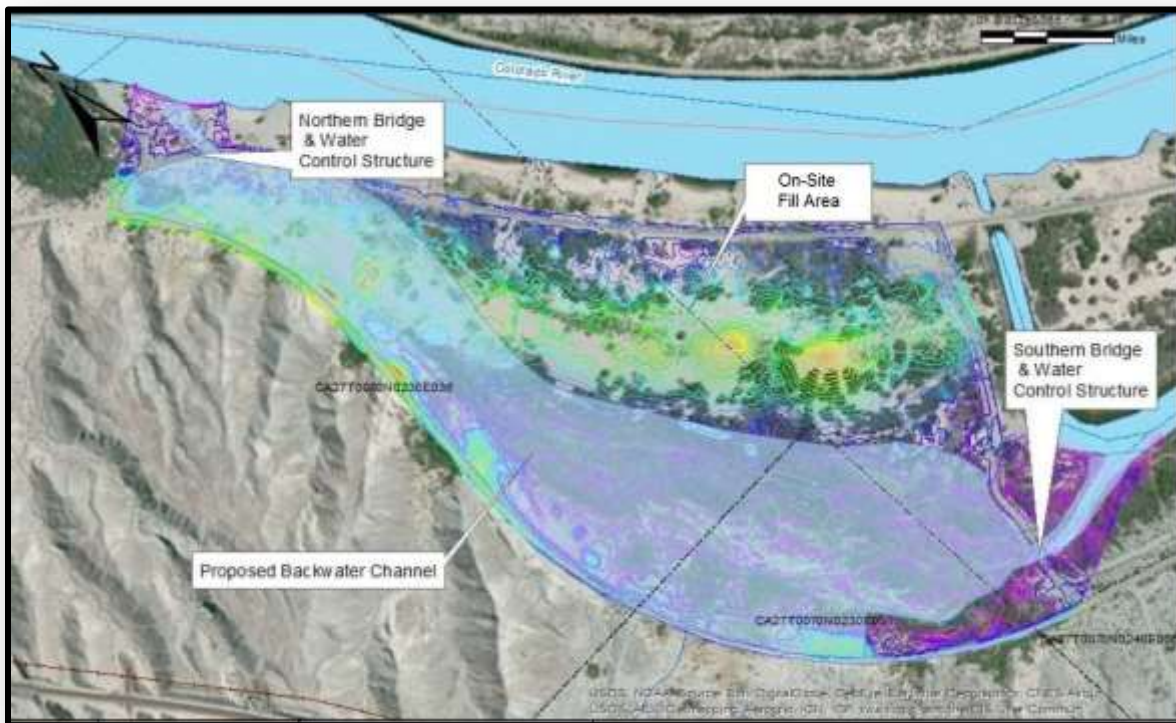
36 The Project would be implemented in four phases.

- 37 • Phase 1 – Vegetation Clearing
- 38 • Phase 2 – Excavation and Construction
- 39 • Phase 3 – Establishment/Re-Vegetation
- 40 • Phase 4 – Habitat Management, Operations, and Maintenance

1 Phases 1 through 3 would span the next two to three years. Phase 4 would include
2 habitat management, operation, and maintenance for the life of the LCR MSCP.

3 **Phase 1 – Vegetation Clearing.** During Phase 1, vegetation (primarily non-native) such
4 as saltcedar (*Tamarix spp*), within the 149-acre parcel would be removed. This would
5 be accomplished by a combination of manual and mechanical clearing (i.e., land-based
6 mechanical and hydraulic equipment). Manual clearing would be conducted with hand
7 tools such as shovels, clippers, and grubbers. Mechanical clearing would be conducted
8 with equipment including, but not limited to, scraper tractor, track hoes, front loaders,
9 and skid steers. The equipment would be used to remove and break down vegetation
10 debris into manageable pieces to be buried on-site. A bulldozer or similar equipment
11 may be used to pile and stage the vegetation debris within the Project site until it is
12 collected and buried under fill material at the on-site disposal area (Figure ES-3). Land-
13 based mechanical and hydraulic equipment being used for the Project would be
14 obtained from the local area and transported to the Project area. Equipment would be
15 staged within the Project area (Figure ES-3).

16 **Figure ES-3. Project Draft Site Plan at 60% Design**



17 Vegetation clearing would prepare the Project area for Phase 2 and Phase 3. To avoid
18 impacts to potentially nesting migratory birds or other special-status species that may
19 inhabit the area, vegetation clearing for Phase 1 would commence at the beginning of
20 March (prior to the nesting season) before the vegetation is occupied by
21 breeding/nesting birds. If Phase 1 vegetation clearing is not commenced prior to the

1 vegetation being used by breeding/nesting birds, then Phase 1 would be conducted
2 during the months of September through February to avoid nesting season.

3 **Phase 2 – Excavation and Construction.** Upon the completion of sufficient vegetation
4 clearing described in Phase 1, a managed backwater habitat channel system between
5 the River and the Park Moabi Channel would be constructed. All clearing and
6 construction activities would occur within the 149 acres, and no open water construction
7 is anticipated. The backwater channel system would incorporate inlet and outlet water
8 control structures and roadway crossings over the excavated backwater channel at the
9 upstream and downstream ends as shown in the Draft Design Report (Appendix A).

10 Backwater Channel Excavation

11 The backwater channel system would be designed to provide water inflow and outflow
12 flexibility for adaptive management. The backwater habitat would be created through
13 dry-cutting (dry land excavation) to establish a new channel within the Project area
14 (Figure ES-3). Dry-cutting would involve earthwork consisting of excavation, grading,
15 and contouring of the perimeter of the backwater channel that would extend from the
16 River to the existing Park Moabi Channel. Excavated material would consist of dry fill
17 gathered above the ground water elevation. Areas within the footprint of the backwater
18 channel may be excavated until the groundwater elevations are reached and further if
19 necessary and feasible.

20 Groundwater elevations within the Project area fluctuate between a depth of 3.5 and 13
21 feet with the rise and fall of the River. Excavation would be accomplished through the
22 use of mechanical and hydraulic equipment such as excavators, back hoes, skid steers,
23 and front loaders. Approximately 1.2 million cubic yards of compacted fill would be
24 excavated. Dry fill materials would be placed directly adjacent to the newly excavated
25 channel to bury the vegetation debris collected during Phase 1 (Figure ES-3).

26 Backwater Channel Design

27 The backwater channel design as shown in Appendix A, would incorporate the
28 construction of two new water control structures which would be concrete arch culverts
29 to allow water to flow through the inlet (Northern Structure) and outlet (Southern
30 Structure) (Figure ES-3). The design would provide spatially variable topography with
31 an appropriate distribution of depths (between 0 to -15 feet) and velocities for a variety
32 of aquatic habitats. In addition, the design would accommodate seasonal flows and
33 fluctuations of the River.

34 An engineered fill mat would be laid within the area below the new culvert and any
35 appurtenant wing wall footing to stabilize the subsurface soil conditions within the
36 channel. The new backwater channel would be constructed with riprap bank protection
37 to prevent scour at the downstream end of the culverts. The riprap material would be
38 similar material currently used within the River and Park Moabi Channel that would be
39 obtained from an existing Reclamation stockpile along the River.

1 Water Control Structure Construction

2 To control water flows at the inlet and outlet of the backwater channel, water control
3 structures would be constructed at the concrete arch culverts. The water control
4 structures would provide hydraulic control for flows in and out of the backwater channel
5 during moderate to high flows in the River. Water control structures would also limit the
6 amount of River bed sediment entering the backwater channel.

7 Roadway/ Bridge Crossing Construction

8 To provide access at the intersections of existing roadways where the backwater
9 channel would be excavated at the inflow and outflow, a roadway/bridge crossing would
10 be constructed atop the upstream and downstream concrete arch culverts that would
11 span the length and width of the inlet and outlet structures.

12 Temporary closure of the existing roadway atop the water control structures may be
13 needed during its construction. Once the water control structures are in place, the
14 roadway/bridge crossings would be constructed to reconnect the existing roadway. The
15 unpaved roadways within the Project area would be constructed of untreated road base
16 and aggregate that would be compacted to the maximum dry density.

17 Backwater Access Points

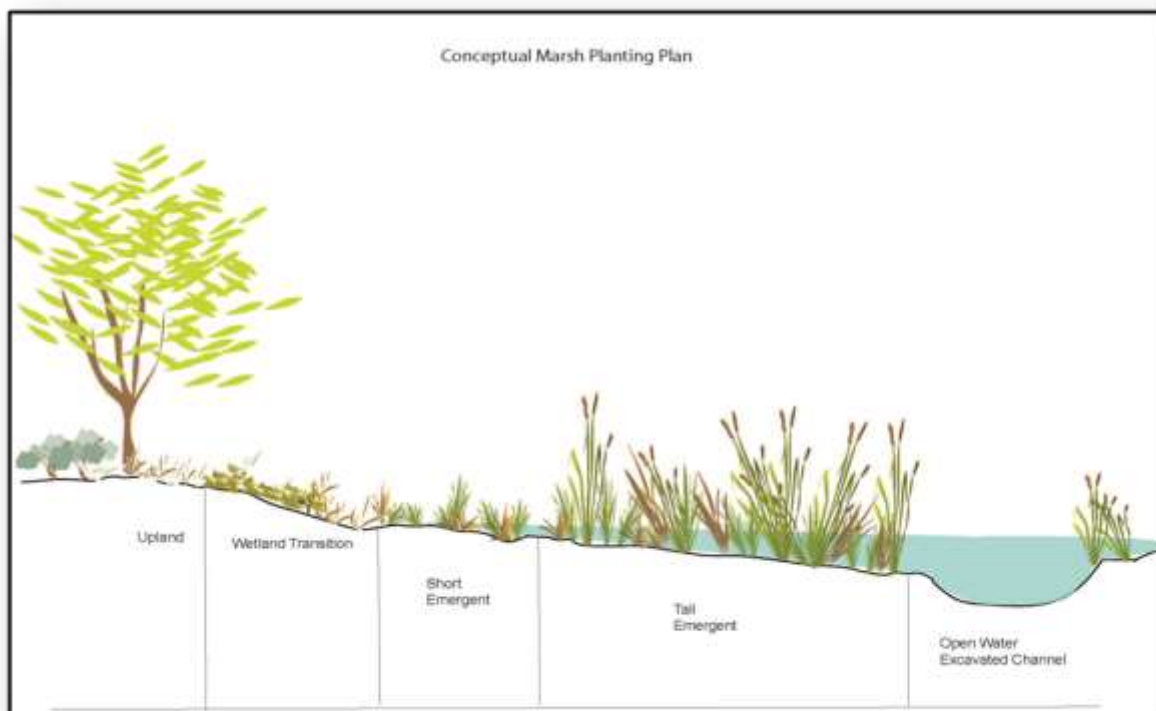
18 The Project design of the backwater channel would include a primitive boat ramp to
19 provide an access point for use by the LCR MSCP staff to maintain and operate the
20 backwater and its structures upon completion of all of the phases of the Project. The
21 boat ramp would be accessed by an existing road and would be constructed for official
22 Project use limiting access to lightweight and non-motorized boat launching. The low
23 impact design of the backwater access point is intended to blend with the surrounding
24 features of the backwater channel.

25 **Phase 3 – Establishment/Re-Vegetation.** Upon the implementation of Phases 1 and
26 2, landscape restoration would be conducted through the tilling along the contours of
27 the backwater channel and planting of four land cover types (Figure ES-4). The
28 distribution and design for re-vegetation follow the recommendations outlined in the
29 HCP and incorporates plant types that already occur in the Park area. The four land
30 cover types that would be created within the 149 acres would include approximately:

- 31 • 26 acres of open deep backwater areas;
- 32 • 24 acres of shallow marsh areas (e.g., bulrush, cattail [*Typha spp.*], and other
33 native seed species);
- 34 • 15 acres of cottonwood/willow areas (e.g., Goodding's willow [*Salix gooddingii*],
35 coyote willow [*Salix exigua*], and Fremont cottonwood [*Populus fremontii*]); and
- 36 • 37 acres of upland areas (e.g., honey mesquite and arrowweed [*Pluchea*
37 *sericea*]).

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Figure ES-4. Example of Phase 3 Planting Scheme – Establishment/Re-Vegetation

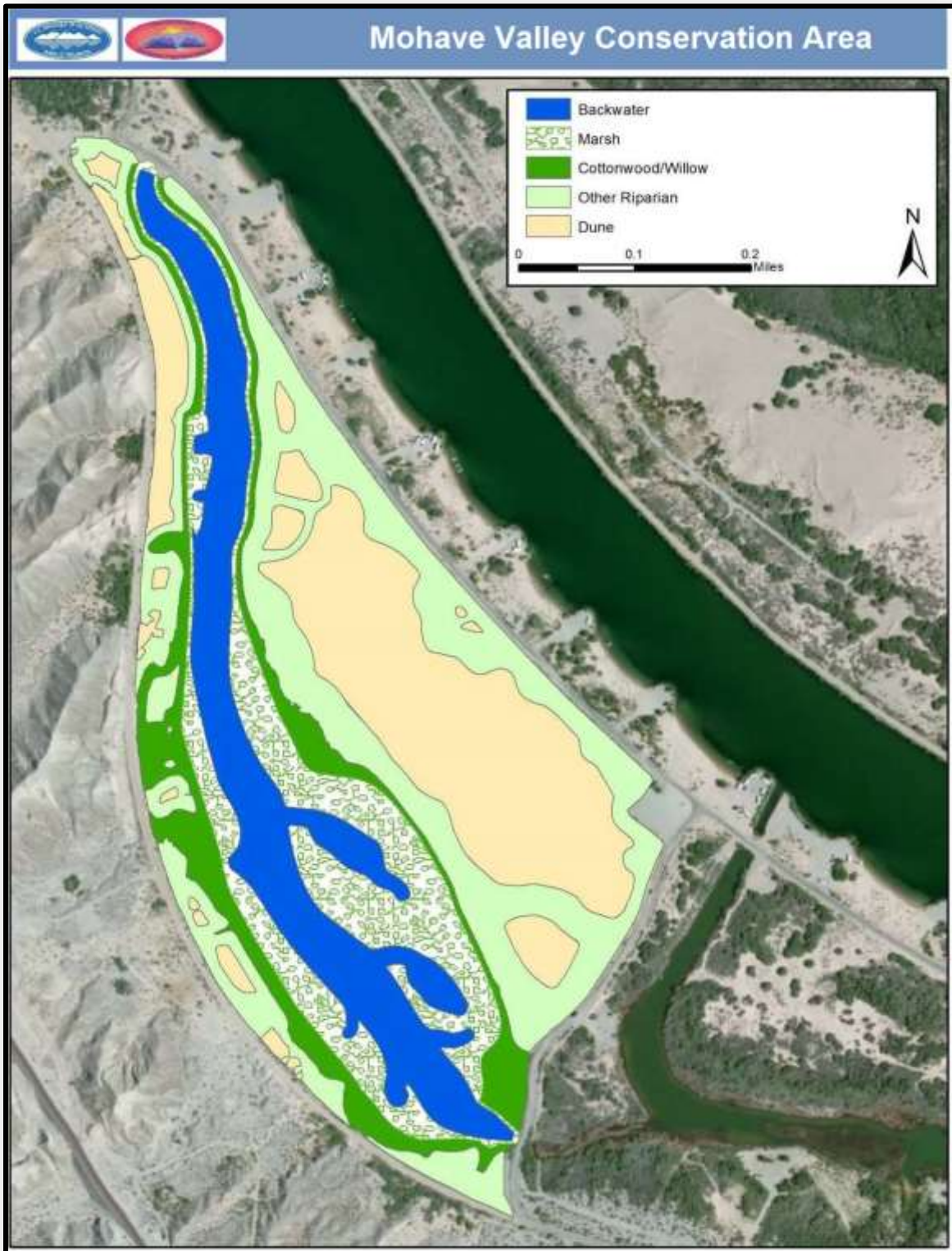


3 The combined total area for the backwater and marsh land cover habitats would be
 4 approximately 50 acres, which would be submerged underwater (Figure ES-5). The 52
 5 (15+37) acres of riparian and upland vegetation of cottonwood/willow, honey mesquite
 6 and arrowweed would be planted to stabilize and re-vegetate the perimeter of the fill
 7 area. For MSCP habitat credit purposes, only approximately 50 acres of backwater
 8 created land cover habitat would be used towards the goal of 85 acres in Reach 3 for
 9 flannelmouth sucker.

10 **Phase 4 – Habitat Management, Operations, and Maintenance.** Phases 1 through 3
 11 would be designed to limit the long-term maintenance requirements of the backwater
 12 habitat. A Draft Mohave Valley Backwater Restoration Development and Monitoring
 13 Plan (Development and Monitoring Plan) (Appendix B) has been prepared and would be
 14 implemented by LCR MSCP to address habitat/vegetation management, as well as
 15 operation and maintenance of the constructed facilities (e.g., water control structures),
 16 roadway access, and backwater access.

17 The Development and Monitoring Plan follows the guidelines of the HCP and identifies
 18 the development of the Project and the applications used to manage and maintain the
 19 Project area. In addition, the Development and Monitoring Plan includes fish and wildlife
 20 monitoring and reporting methods, and success criteria.

1 Figure ES-5. Land Cover Types for Vegetation Restoration at 60% Design 60%



1 In Phase 4, dredging operations are anticipated to occur as needed to manage
2 sediment accumulation and to maintain the backwater channel depth of at least 10 feet.
3 The dredge material would be placed at a previously designated and approved disposal
4 site across the River by moving material with a deep sunken pipe attachment to place
5 the sediment at the disposal site along the River on the Arizona River bank. The pipe
6 used to move the dredge material across the River would be submerged at a depth to
7 ensure there would be no obstruction to navigable waters. The pipe would be removed
8 at the completion of the work.

9 **EXISTING CONDITIONS**

10 The Park in total is nearly 1,400 acres and has two land owners: the CSLC and
11 Reclamation. The area under the Commission's jurisdiction was the historic bed of the
12 Colorado River prior to channelization by Reclamation; the parcel now resides within the
13 abandoned River channel and, while no longer submerged, is still owned by the CSLC.
14 Today, the LCR MSCP stocks and monitors native razorback suckers within the Park
15 Moabi Channel.

16 The Project site is currently being used as an OHV recreational area. The Project area
17 consists of dredged spoils from Reclamation's bankline/levee maintenance. There are
18 also invasive species like saltcedar, mesquite series, arrow weed series, creosote bush
19 series, sand dunes, and desert wash/riparian. There are no structures on the Project
20 site.

21 In recent years the concessionaire under contract with the County has significantly
22 developed the services available within the Park. Currently, the Park provides a 7-lane
23 launch ramp, a marina, recreational vehicle (RV) and tent camping, waterfront cabins, a
24 convenience store, and the Pirate's Cove Restaurant & Bar. In 2012, the County
25 proposed plans to make the 149-acre parcel an OHV recreational area. The OHV use
26 area consists of land within a dredge spoil area located within the County lease area
27 and provides open riding and designated, signed trails for OHV use. The OHV area re-
28 established inner-park limited speed OHV access trails adjacent to existing internal
29 roadways, designated roadway crossings, and OHV temporary parking sites and
30 staging areas.

31 **ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES**

32 The environmental factors checked below in Table ES-1 would be potentially affected
33 by this Project; a checked box indicates that at least one impact has the potential to be
34 a "Potentially Significant Impact" except that the Applicant and Reclamation have
35 agreed to Project revisions, including the implementation of mitigation measures (MMs)
36 that reduce the impact to "Less than Significant with Mitigation," as detailed in Section 3
37 of this EA/MND. Table ES-2 lists proposed MMs designed to reduce or avoid potentially
38 significant impacts. With implementation of the MMs, all Project-related impacts would
39 be reduced to less than significant.

1 **Table ES-1. Environmental Issues and Potentially Significant Impacts**

<input type="checkbox"/> Aesthetics/ Visual Resources	<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural and Paleontological Resources/Traditional Cultural Properties/Sacred Sites	<input type="checkbox"/> Geology and Soils
<input type="checkbox"/> Greenhouse Gas Emissions and Climate Change	<input checked="" type="checkbox"/> Hazards/Hazardous Materials/Human Health and Safety	<input checked="" type="checkbox"/> Hydrology and Water Quality
<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Transportation/ Traffic	<input type="checkbox"/> Utilities and Service Systems	
<input checked="" type="checkbox"/> Mandatory Findings of Significance		
<input type="checkbox"/> Other Major Areas of Concern: Environmental Justice and Indian Trust Assets or Tribal Lands		

2 **Table ES-2. Summary of Proposed Project Mitigation Measures**

Biological Resources
MM BIO-1 Worker Environmental Awareness Program (WEAP)
MM BIO-2 Designated Project Biologist
MM BIO-3 Bird Breeding Season Avoidance
MM BIO-4 Reduce Terrestrial Invasive Species
MM BIO-5 Reduce Aquatic Invasive Species
Cultural and Paleontological Resources/Traditional Cultural Properties/Sacred Sites
MM CUL-1 Discovery of Unanticipated Cultural Resources
MM CUL-2 Discovery of Unanticipated Human Remains
Hazards/Hazardous Materials/Human Health and Safety
MM HHM-1 Discovered Contaminants Protections
MM HHM-2 Toxic Substances Protections
Hydrology and Water Quality
MM HHM-2 Toxic Substances Protections (see above)
Transportation/Traffic
MM TT-1 Placement of dredge pipe in navigable waters
MM TT-2 Traffic Plan During Construction