

1.1 Background

The Colorado River Basin encompasses approximately 244,000 square miles located in portions of seven states (i.e., Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming—collectively referred to as the Basin States¹). The Colorado River starts in the Rocky Mountains and traverses more than 1,400 miles to its terminus in the delta regions of the upper Gulf of California (Sea of Cortez) in Mexico. The Colorado River provides the water supply for over 25 million people and about 3.5 million acres of agricultural lands in the United States and Mexico (Water Education Foundation 2001). A significant amount of the water demand (particularly for municipal use) is physically located outside the Colorado River Basin and is served by transbasin diversions and conveyances. Collectively, hydroelectric generation facilities in the Colorado River Basin can provide about 12 billion kilowatt hours of energy annually.

The Colorado River also serves as a significant source of water for recreational and environmental resources in the Basin States. The riverine corridor and associated historical floodplain compose a significant portion of the remaining aquatic, marsh, and riparian habitat that is vital to many different resident and migratory species.

The Colorado River Compact of 1922 divided the Colorado River into Upper and Lower Divisions and Upper and Lower Basins. The Upper Division States are Colorado, New Mexico, Utah, and Wyoming, and the Lower Division States are Arizona, California, and Nevada. The Lower Basin extends from Lee Ferry to the Southerly International Boundary (SIB) and is generally referred to as the lower Colorado River (LCR) (see Figure 1-1). Hoover Dam is the northernmost U.S. Department of the Interior, Bureau of Reclamation (Reclamation) facility on this portion of the river. LCR operations are determined by various laws, treaties, and court decisions collectively referred to as *The Law of the River* (see Appendix A). The Law of the River includes, but is not limited to, the Colorado River Compact of 1922, the Boulder Canyon Project Act of 1928, the

¹ As defined in the Colorado River Compact of 1922, the phrase *Lower Basin* describes the geographic area where waters naturally drain in the Colorado River below Lee Ferry, approximately 1 mile downstream from the confluence of the Paria River (the Lower Basin includes portions of Arizona, California, and Nevada); *Upper Basin* describes the area upstream of the Paria River (the Upper Basin includes portions of Arizona, Colorado, New Mexico, Utah, and Wyoming). As defined in the Colorado River Compact of 1922, the phrase *Lower Division States* (or *Lower Division*) used in this document refers to Arizona, California, and Nevada, and *Upper Division States* (or *Upper Division*) refers to Colorado, New Mexico, Utah, and Wyoming.

1 California Seven Party Agreement of 1931, the *Utilization of Waters of the Colorado and*
2 *Tijuana Rivers and of the Rio Grande—Treaty between the United States of America and*
3 *Mexico*, dated February 3, 1944 (1944 Water Treaty), the Upper Colorado River Basin
4 Compact of 1948, the 1956 Colorado River Storage Project Act, the Supreme Court
5 Decree of 1964 in *Arizona v. California* (376 U.S. 340) (Decree), and the Colorado River
6 Basin Project Act of 1968. The Law of the River encompasses discretionary and
7 nondiscretionary actions by Reclamation, acting for the Secretary of the Interior
8 (Secretary) in her role as watermaster, related to its operation and maintenance (O&M) of
9 the LCR.

10 In 1967, the Yuma clapper rail, an endemic bird of the LCR, was listed as endangered
11 under the precursor to the Federal Endangered Species Act (ESA). In 1980, the bonytail,
12 a native fish of the LCR, was listed as endangered under the ESA. In 1991, the razorback
13 sucker, a native fish of the LCR, was listed as endangered. In 1994, areas of the LCR
14 were designated as critical habitat for these two endangered fish species. In 1995, the
15 southwestern willow flycatcher, a native bird of the LCR region, was listed as
16 endangered. The U.S. Fish and Wildlife Service (USFWS) proposed critical habitat for
17 the southwestern willow flycatcher including areas in the Lower Colorado River Multi-
18 Species Conservation Program (LCR MSCP) planning area on October 12, 2004.

19 In 1995, U.S. Department of the Interior agencies; water, power, and wildlife resources
20 agencies from Arizona, California, and Nevada; Native American tribes; environmental
21 interests; and recreational interests agreed to form a partnership to develop and
22 implement a long-term endangered species compliance and management program for the
23 historical floodplain of the LCR. To facilitate the development of an ecosystem-based
24 habitat conservation plan (HCP) and coordination with the various LCR MSCP Federal
25 partners, the Director of the USFWS designated the LCR MSCP Steering Committee as
26 the Ecosystem Conservation Recovery Implementation Team for the LCR. The parties
27 designated the program the LCR MSCP. The potentially affected parties and other
28 interested parties established a public process for developing the required documents and
29 plans. Various public agencies and other non-governmental groups have participated, at
30 their discretion and at various times, in developing the various components of the LCR
31 MSCP.

32 Reclamation issued a final biological assessment (BA) for LCR O&M from Lake Mead
33 to the SIB in August 1996 (Bureau of Reclamation 1996). That BA served two purposes:
34 as documentation for the ESA section 7 consultation between Reclamation and the
35 USFWS for discretionary operations of the LCR and as a reference for development and
36 implementation of the LCR MSCP by LCR stakeholders pursuant to ESA section 7 (for
37 Federal actions) and ESA section 10(a)(1)(B) (for non-Federal actions). On April 30,
38 1997, the USFWS issued its final biological opinion (BO) (U.S. Fish and Wildlife
39 Service 1997) (1997 BO). The 1997 BO identified Reclamation's participation in
40 developing the LCR MSCP as the long-term plan to address the impacts of Reclamation's
41 continued O&M activities on the LCR. Consultation on the 1997 BO was reinitiated at
42 Reclamation's request in March 2002, and another BO was issued by the USFWS in
43 April 2002 (U.S. Fish and Wildlife Service 2002a) (2002 BO). This BO identified minor
44 modifications to the provisions of the 1997 BO and extended ESA coverage for
45 Reclamation's discretionary actions on the LCR for 3 years to April 30, 2005.



Figure I-1
 Lower Colorado River MSCP
 Planning Area and River Reaches



1 LCR MSCP participants and stakeholders now seek to establish a long-term framework
 2 for compliance with the ESA for ongoing, proposed, and potential future projects. At
 3 present, compliance with ESA is achieved on a project-by-project and species-by-species
 4 basis. The LCR MSCP is a partnership responding to the need to balance the legal use of
 5 LCR water resources and the conservation of threatened and endangered species and their
 6 habitats in compliance with the ESA. The Steering Committee will operate, as defined
 7 under the Funding and Management Agreement (FMA) that has been prepared among
 8 Federal, state, local, and tribal parties, and will provide oversight to the LCR MSCP
 9 Program Manager (Program Manager) (see Exhibit A). The Program Manager is the
 10 position to be established by Reclamation, as described in the FMA, that will be
 11 responsible for implementing the LCR MSCP.

12 **1.2 LCR MSCP Goal**

13 The overall goal of the LCR MSCP is to develop and implement a plan that will:

- 14 ■ conserve habitat and work toward the recovery of threatened and endangered species,
 15 as well as reduce the likelihood of additional species being listed;
- 16 ■ accommodate present water diversions and power production and optimize
 17 opportunities for future water and power development, to the extent consistent with
 18 the law; and
- 19 ■ provide the basis for incidental take authorizations.

20 **1.3 Purpose and Need for the LCR MSCP HCP and** 21 **Regulatory Context**

22 **1.3.1 Need for the LCR MSCP HCP**

23 Section 9(a)(1)(B) of the ESA prohibits the take by any person of any listed endangered
 24 fish or wildlife species, and section 9(a)(1)(G) of the ESA prohibits the take of any listed
 25 threatened fish or wildlife species in violation of any regulation promulgated by the
 26 USFWS. The ESA prohibits the take of listed endangered or threatened fish or wildlife
 27 species by any person unless otherwise specifically authorized or permitted, pursuant to
 28 the provisions of section 7 or section 10(a)(1)(B) of the ESA. The take prohibition for
 29 listed plants is more limited than for listed fish and wildlife. Under section 9(a)(2)(B) of
 30 the ESA, endangered plants are protected from removal, reduction to possession, and
 31 malicious damage or destruction in areas that are under Federal jurisdiction. Section
 32 9(a)(2)(B) of the ESA also provides protection to plants from removal, cutting, digging
 33 up, damage, or destruction where the action takes place in violation of any state law or
 34 regulation or in violation of a state criminal trespass law. Thus, the ESA does not
 35 prohibit the incidental take of Federally listed plants on private or other non-Federal
 36 lands unless the take or action resulting in take requires Federal authorization or is in
 37 violation of state law. The section 7(a)(2) prohibition against jeopardy, however, applies

1 to plants, and the USFWS may not issue a section 10(a)(1)(B) incidental take permit if
2 the issuance of that permit would result in jeopardy to a listed plant species.

3 Private individuals, corporations, state or local governments, or other non-Federal entities
4 who wish to conduct otherwise lawful activities that might incidentally take a listed
5 species must first obtain an incidental take permit from the USFWS. A non-Federal
6 entity is required to develop an HCP in order to be granted an incidental take permit
7 under section 10(a)(1)(B) of the ESA. Under the ESA section 10(a)(2)(A) and USFWS
8 section 10 regulations (50 Code of Federal Regulations [C.F.R.] §17.22(b)(1)), the permit
9 application and the HCP submitted in support of the incidental take permit application
10 must detail the following information:

- 11 ■ a complete description of the activity sought to be authorized;
- 12 ■ the common and scientific names of species sought to be covered by the permit, as
13 well as the number, age, and sex of such species, if known;
- 14 ■ the impact that will likely result from such taking;
- 15 ■ what steps the applicant will take to monitor, minimize, and mitigate such impacts;
- 16 ■ the funding that will be available to implement such steps;
- 17 ■ the procedures to be used to deal with unforeseen circumstances;
- 18 ■ what alternative actions to such taking the applicant considered and the reasons why
19 such alternatives are not proposed to be used; and
- 20 ■ such other measures that the Regional Director of the USFWS may require as being
21 necessary or appropriate for purposes of the plan.

22 This HCP is intended to meet all the regulatory requirements necessary for the USFWS to
23 issue a section 10(a)(1)(B) permit to allow incidental take of threatened and endangered
24 species affected by specified non-Federal agency activities (covered activities) within the
25 LCR MSCP planning area (see description of the LCR MSCP planning area under
26 section 1.4.1, “Geographic Scope,” and Chapter 2, “Description of Covered Activities”).

27 The LCR MSCP Permit Applicants (Applicants) (see Table 1-1) are submitting this HCP
28 to the USFWS as part of the application package for an incidental take permit under
29 section 10(a)(1)(B) of the ESA (16 U.S.C. §1539). Additional permittees may be added
30 by certificates of inclusion after the final permit has been issued². The permit is to
31 address the incidental take of Federally listed species and other nonlisted covered species
32 associated with the Applicants’ ongoing and future activities (listed in Chapter 2) along
33 the LCR. The issuance of a permit to the Applicants would authorize under the ESA the
34 incidental take of listed species resulting from the Applicants’ otherwise lawful activities
35 described in Chapter 2 pursuant to section 10(a)(1)(B) of the ESA of 1973, as amended.

36 The LCR MSCP Conservation Plan as described in Chapter 5 of this HCP provides
37 measures to avoid, minimize, and mitigate, to the maximum extent practicable, the

² Appendix G provides a list of water contractors in Arizona, California, and Nevada with entitled rights to Colorado River water. The LCR MSCP provides coverage for each state’s full entitlement in addition to surplus. The water contractors listed in Appendix G that are currently not included as Applicants may become permittees to the section 10(a)(1)(B) permit in accordance with the provisions of the FMA.

1 potential effects from covered activities on listed and other covered species and their
 2 habitat and to ensure that incidental take of listed species will not appreciably reduce the
 3 likelihood of the survival and recovery of the species in the wild. If the permit is granted,
 4 the Applicants will ensure sufficient funding to implement the LCR MSCP, as required
 5 under section 10(a)(1)(B) of the ESA.

6 **Table 1-1.** Endangered Species Act Section 10(a)(1)(B) Permit Applicants
 7 Covered under the LCR MSCP

Permit Applicants³ Covered under the LCR MSCP

Arizona

Arizona Department of Water Resources
 Arizona Game & Fish Department
 Arizona Power Authority
 Central Arizona Water Conservation District
 Mohave County Water Authority
 North Gila Valley Irrigation and Drainage District
 Salt River Project Agricultural Improvement and Power District
 Wellton-Mohawk Irrigation and Drainage District
 Yuma County Water Users Association
 Yuma Mesa Irrigation and Drainage District
 Yuma Irrigation District

California

Bard Water District
 Coachella Valley Water District
 Colorado River Board of California
 Imperial Irrigation District
 The Metropolitan Water District of Southern California
 Palo Verde Irrigation District
 San Diego County Water Authority
 Southern California Public Power Authority

³ This list includes additional Applicants whose applications for an incidental take permit have been submitted to the USFWS since the publication of the draft LCR MSCP documents. Inclusion of additional applicants has not added new covered activities or modified the scope of such covered activities. Accordingly, the effects of the covered activities of all such additional Applicants, for which take coverage is being sought, have been fully evaluated in both the draft and final versions of the LCR MSCP HCP and EIS/EIR.

 Permit Applicants³ Covered under the LCR MSCP

Nevada

Basic Water Company

Colorado River Commission of Nevada

Nevada Department of Wildlife

Southern Nevada Water Authority

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1.3.2 Relationship between LCR MSCP HCP and LCR MSCP BA

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The Applicants (see Table 1-1) and Reclamation have developed conservation measures for species and their habitats designed to achieve specific species goals for minimizing and mitigating impacts on HCP-covered species (see description of covered species below). Reclamation has prepared the LCR MSCP BA as a companion document to the LCR MSCP HCP in compliance with section 7 of the ESA to address specified Federal agency activities (“covered actions”) associated with ongoing operations and maintenance of the LCR and specific activities proposed by the National Park Service (NPS), the Bureau of Indian Affairs (BIA), the USFWS, the Western Area Power Administration (Western), and the Bureau of Land Management (BLM).

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This LCR MSCP HCP describes the LCR MSCP Conservation Plan (see Chapter 5) that provides long-term mitigation to offset incidental take of listed threatened and endangered species resulting from covered activities along the LCR as discussed in Chapter 2. In addition, the LCR MSCP Conservation Plan provides for conservation of covered species to address all Federal actions along the LCR described in Chapter 2 of the LCR MSCP BA. The covered activities addressed in the LCR MSCP HCP and the LCR MSCP BA are divided into flow-related and non-flow-related activities. Although the effects on covered species of non-flow-related activities by non-Federal and Federal agencies could be distinguished and are addressed separately in the LCR MSCP HCP and LCR MSCP BA, as discussed more fully within the LCR MSCP BA the effects on covered species of flow-related activities could not be distinguished between Federal and non-Federal components. Hence, both the LCR MSCP HCP and LCR MSCP BA address the same flow-related covered activities.⁴ Many of the Federal actions on the LCR are nondiscretionary; see Section 2.1.1 for a discussion of the relationship between non-Federal covered activities and Federal nondiscretionary actions.

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This LCR MSCP HCP includes conservation measures for nonlisted species, thereby providing early protection for species not listed at the time the LCR MSCP HCP was developed, and the LCR MSCP is seeking no-surprises assurances for these species (see Chapter 8, “Assurances”). In addition to conservation measures to minimize and mitigate incidental take of listed species that may result from non-Federal and Federal covered

⁴ Based on ESA compliance completed in January 2001, there is one distinction to the coverage addressed in the LCR MSCP HCP and the LCR MSCP BA related to proposed changes in points of diversion of LCR water. See discussion at Section 4.2 of this HCP and Chapter 2 and Table 2-13 of the LCR MSCP BA.

1 activities, the LCR MSCP Conservation Plan in Chapter 5 of the LCR MSCP HCP
 2 includes conservation measures that will contribute to the recovery of listed species and
 3 reduce the likelihood for future listing of nonlisted species.

4 In summary, the LCR MSCP Conservation Plan, as described in Chapter 5 of this
 5 document, has been designed as a robust approach to covered species conservation that
 6 addresses all adverse effects on covered species that may result from any and all non-
 7 Federal and Federal actions, projects, and activities described in Chapter 2 of this LCR
 8 MSCP HCP and Chapters 2 and 3 of the companion LCR MSCP BA.

9 **1.3.3 Relationship with the 1997 and 2002** 10 **Biological Opinions**

11 The LCR MSCP Steering Committee has overseen the development of this LCR MSCP
 12 HCP and the companion LCR MSCP BA to comply with ESA section 10(a)(1)(B) and
 13 section 7, respectively. With the approval of the LCR MSCP and issuance of the section
 14 10(a)(1)(B) incidental take permit and section 7 BO in response to the LCR MSCP HCP
 15 and LCR MSCP BA, these new authorizations will supersede the 2002 BO. When the
 16 new BO on the LCR MSCP takes effect, the following obligations of Reclamation under
 17 the 1997 BO and 2002 BO will continue.

- 18 ■ If any of the 1,400 acres of southwestern willow flycatcher habitat acquired and
 19 protected under the provisions of the 1997 BO Reasonable and Prudent Alternative
 20 (RPA) 5 should lose its protected status in the future, the affected habitat acreage will
 21 be replaced by southwestern willow flycatcher habitat created under the LCR MSCP.
- 22 ■ Completion and ongoing maintenance of native fish impoundments by Reclamation
 23 that were a condition of the 1997 BO RPA 3, as amended by the 2002 BO, will be
 24 included under the LCR MSCP.

25 **1.3.4 Relationship with the 2001 Biological** 26 **Opinion**

27 In 2001, Reclamation and USFWS completed section 7 consultation regarding potential
 28 effects to Yuma clapper rail, southwestern willow flycatcher, bonytail, and razorback
 29 sucker from an annual change in point of diversion totaling 400,000 afy and
 30 implementation of specific surplus guidelines through year 2016. The 2001 BO will not
 31 be superseded by the LCR MSCP; however, as described in Section 2.3.2 and 4.2, the
 32 400,000 af annual change in point of diversion is being included for coverage under the
 33 LCR MSCP as part of the total potential 1.574 million acre-feet per year (maf) change
 34 in points of diversion. Accordingly, the following conservation measures identified in
 35 the 2001 BO, when implemented by Reclamation in accordance with the requirements of
 36 the LCR MSCP HCP, will also be counted as LCR MSCP conservation measure
 37 requirements:

- 38 ■ funding and support for razorback sucker studies at Lake Mead beyond 2005;

- 1 ■ rearing and stocking of 20,000 razorback suckers between Parker and Imperial Dams
2 (Reaches 4 and 5);
- 3 ■ restoration or creation of 44 acres of backwaters as habitat for native fish;
- 4 ■ \$50,000 in funding to provide for the capture of wild-born bonytail from Lake
5 Mohave;
- 6 ■ monitoring of 372 acres of existing occupied southwestern willow flycatcher habitat;
7 and
- 8 ■ restoration and maintenance of 372 acres of southwestern willow flycatcher habitat.

9 **1.3.5 Relationship between the LCR MSCP HCP** 10 **and Other Federal and State Regulations**

11 Federal and California agencies have prepared a joint LCR environmental impact
12 statement/environmental impact report (EIS/EIR) in compliance with the:

- 13 ■ National Environmental Policy Act (NEPA) for issuance of the section 10(a)(1)(B)
14 permit by the USFWS and implementation of the LCR MSCP by Reclamation and
- 15 ■ California Environmental Quality Act (CEQA) for implementation of the LCR
16 MSCP by the California agencies.

17 The LCR MSCP provides ESA compliance for implementation of covered activities by
18 non-Federal and Federal partners. Implementation of covered activities, however, may
19 require compliance with other appropriate Federal and state laws and regulations,
20 including, but not limited to, the Clean Water Act, Fish and Wildlife Coordination Act
21 (FWCA), Migratory Bird Treaty Act (MBTA), NEPA, and CEQA (with respect to
22 participating California agencies). Compliance with these laws and regulations may
23 include mitigation in addition to that provided in the LCR MSCP.

24 **1.3.6 Conservation Initiatives for the Colorado** 25 **River**

26 Over the past decade, significant species and habitat conservation initiatives have been
27 developed throughout the Colorado River Basin. In the Upper Colorado River Basin, the
28 U.S. Department of the Interior, Colorado, New Mexico, Utah, Wyoming, water users,
29 power customers, and environmental groups developed recovery programs for several
30 native endangered fish species (i.e., the Upper Colorado River Recovery Implementation
31 Program and the San Juan River Recovery Implementation Program). The U.S.
32 Department of the Interior is engaged in the Glen Canyon Adaptive Management
33 Program, pursuant to the Grand Canyon Protection Act of 1992. This Act required the
34 Secretary to complete an EIS evaluating alternative operating criteria, consistent with
35 existing law, that would determine how Glen Canyon Dam would be operated to both
36 meet the purposes for which the dam was authorized and to meet the goals for protection
37 of Glen Canyon National Recreation Area and Grand Canyon National Park. Local,

1 state, and Federal interests in the Las Vegas metropolitan region completed and are
 2 presently implementing a regional multiple species HCP for the Mojave Desert in Clark
 3 County, Nevada, that addresses terrestrial species and habitats common to Clark County
 4 and the Lake Mead and Lake Mohave portions of the Colorado River. Binational efforts
 5 are underway to address species conservation and the ecological condition of the
 6 Colorado River and its delta in Mexico. Efforts by state and Federal agencies to restore
 7 native fish species to the river and the large reservoirs in the LCR have been ongoing
 8 since the early 1990s.

9 The National Fish and Wildlife Foundation's Partners in Flight program has resulted in
 10 the development of ecoregion-based bird conservation plans, primarily focused on the
 11 management and conservation of the nation's neotropical migratory bird species. In the
 12 Partners in Flight plans developed for Arizona, California, and Nevada, recognition is
 13 given to the ecological value and importance of the LCR to neotropical migratory and
 14 resident bird species that rely on and use the associated aquatic, marsh, and riparian
 15 habitats.

16 **1.4 Scope of the LCR MSCP HCP**

17 **1.4.1 Geographic Scope**

18 The LCR MSCP planning area comprises areas up to and including the full-pool
 19 elevations of Lakes Mead, Mohave, and Havasu and the historical floodplain of the
 20 Colorado River from Lake Mead to the SIB. The historical flood plain is defined as all
 21 lands that are or have been affected by the meandering or regulated flows of the Colorado
 22 River, which historically have been defined by the change in elevation that forms the
 23 adjoining uplands. The full-pool elevation of Lake Mead is defined by water surface
 24 elevation 1,229 feet National Geodetic Vertical Datum (NGVD). The full-pool elevation
 25 of Lake Mohave is defined by surface water elevation 647 feet NGVD. The full-pool
 26 elevation of Lake Havasu is defined by surface water elevation 450 feet NGVD. The
 27 full-pool elevation at Lake Mead is 8 feet above the spillway gates in the raised position.
 28 The full-pool elevations for Lakes Mohave and Havasu correspond to the top of their
 29 respective spillway gates (Bureau of Reclamation 1981).

30 For use in the analysis of impacts and conservation measures in this HCP, the LCR
 31 MSCP planning area is divided into discrete reaches:

- 32 ■ Reach 1—from Separation Canyon in the lower end of the Grand Canyon to Hoover
 33 Dam, including Lake Mead up to full-pool elevation;
- 34 ■ Reach 2—from Hoover Dam to Davis Dam (river mile [RM] 276), including Lake
 35 Mohave up to full-pool elevation;
- 36 ■ Reach 3—from Davis Dam (RM 276) to Parker Dam (RM 192.3), including Lake
 37 Havasu up to full-pool elevation;
- 38 ■ Reach 4—from Parker Dam (RM 192.3) to Adobe Ruin and Reclamation Cibola
 39 Gage (RM 87.3) at the lower end of Reclamation's maintenance Cibola Division;

- 1 ■ Reach 5—from Reclamation Cibola Gage (RM 87.3) to Imperial Dam (RM 49.2);
- 2 ■ Reach 6—from Imperial Dam (RM 49.2) to the Northerly International Boundary
- 3 (NIB) (RM 23.1); and
- 4 ■ Reach 7—portion of the LCR from NIB (RM 23.1) to SIB (RM 0.0) within the
- 5 United States.

6 Water surface elevation and river miles were determined from LCR Maps, Colorado
 7 River Frontwork & Levee System, Arizona-California (Bureau of Reclamation 1976).
 8 The LCR MSCP planning area and river reaches are shown on Figure 1-1. It should be
 9 noted that the above-described LCR MSCP planning reaches do not fully correspond with
 10 Reclamation’s maintenance divisions.

11 1.4.2 Covered and Evaluation Species

12 Species proposed for coverage are those for which incidental take authorization may be
 13 required under the ESA during the 50-year term of the LCR MSCP. These “covered
 14 species” are fully addressed in the LCR MSCP HCP and are expected to be included in
 15 the ESA section 10(a)(1)(B) incidental take permit. These species were identified based
 16 on an initial assessment of how implementing proposed covered activities and
 17 conservation measures could affect listed species or species that could become listed
 18 during the term of the LCR MSCP.

19 One hundred forty-nine special-status species with the potential to occur in the LCR
 20 MSCP planning area were evaluated for coverage in the LCR MSCP HCP. The LCR
 21 MSCP Steering Committee developed, adopted, and applied two criteria for selecting
 22 covered species from among the special-status species considered. Species proposed for
 23 coverage are those that meet one of the following selection criteria:

- 24 ■ species that are listed or that are proposed or candidates for listing under the ESA or
- 25 species that are protected under Arizona, California, or Nevada law that could be
- 26 affected by covered activities and would require take authorization; or
- 27 ■ species that could become listed during the term of the LCR MSCP under the ESA or
- 28 species that could become protected under Arizona, California, or Nevada law that
- 29 could be affected by covered activities and could require future take authorization.
- 30 Factors considered to determine potential for future listing during the term of the
- 31 LCR MSCP are:
 - 32 □ ongoing or likely future destruction, modification, or curtailment of a species’
 - 33 habitat or range of sufficient magnitude that could warrant future listing;
 - 34 □ the inadequacy of existing regulatory mechanisms to protect a species from
 - 35 ongoing decline of sufficient magnitude that could warrant future listing; or
 - 36 □ other natural or artificial factors that may affect a species’ continued existence.

37 Based on the application of the selection criteria, 27 of the species considered are
 38 proposed for coverage under the ESA section 10(a)(1)(B) incidental take permit (see
 39 Table 1-2). The LCR MSCP Conservation Plan (see Chapter 5) includes a full range of

Table 1-2. Proposed Covered and Evaluation Species under the LCR MSCP HCP and Their Status

Common and Scientific Name	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴	Selection Criteria ⁵
Threatened and Endangered Species					
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	FE	ASC	CT/FP	–	1
Southwestern willow flycatcher <i>Empidonax trailii extimus</i>	FE	ASC	CE	–	1
Desert tortoise (Mojave population) <i>Gopherus agassizii</i>	FT	ASC	CT	NT	1
Bonytail <i>Gila elegans</i>	FE	ASC	CE	NE	1
Humpback chub <i>Gila cypha</i>	FE	ASC	–	–	1
Razorback sucker <i>Xyrauchen texanus</i>	FE	ASC	CE/FP	NE	1
Other Covered Species					
Western red bat <i>Lasiurus blossevillii</i>	–	ASC	–	–	2
Western yellow bat <i>Lasiurus xanthinus</i>	–	ASC	–	–	2
Desert pocket mouse <i>Chaetodipus penicillatus sobrinus</i>	–	–	–	–	2
Colorado River cotton rat <i>Sigmodon arizonae plenus</i>	–	–	CSC	–	2
Yuma hispid cotton rat <i>Sigmodon hispidus eremicus</i>	–	–	CSC	–	2
Western least bittern <i>Ixobrychus exilis hesperis</i>	–	ASC	CSC	–	2
California black rail <i>Laterallus jamaicensis coturniculus</i>	–	ASC	CT/FP	–	1
Yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FC	ASC	CE	–	1
Elf owl <i>Micrathene whitneyi</i>	–	–	CE	NP	1
Gilded flicker <i>Colaptes chrysoides</i>	–	–	CE	–	1
Gila woodpecker <i>Melanerpes uropygialis</i>	–	–	CE	–	1
Vermilion flycatcher <i>Pyrocephalus rubinus</i>	–	–	CSC	–	2
Arizona Bell's vireo <i>Vireo bellii arizonae</i>	–	–	CE	–	1
Sonoran yellow warbler <i>Dendroica petechia sonorana</i>	–	–	CSC	–	2
Summer tanager <i>Piranga rubra</i>	–	–	CSC	–	2

Common and Scientific Name	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴	Selection Criteria ⁵
Flat-tailed horned lizard <i>Phrynosoma mcalli</i>	–	ASC	CSC	–	2
Relict leopard frog <i>Rana onca</i>	FC	ASC	–	NP	1
Flannelmouth sucker <i>Catostomus latipinnis</i>	–	ASC	–	–	2
MacNeill’s sootywing skipper <i>Pholisora graciela</i>	–	–	–	–	2
Sticky buckwheat <i>Eriogonum viscidulum</i>	–	–	–	NEP	1
Threecorner milkvetch <i>Astragalus geyeri</i> var. <i>triquetrus</i>	–	–	–	NEP	1
Evaluation Species					
California leaf-nosed bat <i>Macrotus californicus</i>	–	ASC	CSC	–	N/A
Pale Townsend’s big-eared bat <i>Corynorhinus townsendii pallascens</i>	–	–	CSC	–	N/A
Colorado River toad <i>Bufo alvarius</i>	–	–	CSC	–	N/A
Lowland leopard frog <i>Rana yavapaiensis</i>	–	ASC	CSC	–	N/A

¹ Federal Status

- FE = Listed as endangered under the Federal Endangered Species Act ESA.
- FT = Listed as threatened under ESA.
- FC = Candidate for listing under ESA.

² Arizona Status

- ASC = Arizona wildlife of special concern.

³ California Status

- CE = Listed as endangered under the California Endangered Species Act (CESA).
- CT = Listed as threatened under CESA.
- FP = Fully protected under the California Fish and Game Code.
- CSC = California species of special concern.

⁴ Nevada Status

- NE = Nevada endangered
- NT = Nevada threatened.
- NEP = Nevada critically endangered plant.
- NP = Nevada protected.

⁵ Selection Criteria

1. Species that are listed or that are proposed or candidates for listing under the ESA or species that are protected under Arizona, California, or Nevada law that could be affected by covered activities and would require take authorization;
2. Species that could become listed during the term of the LCR MSCP under the ESA or species that could become protected under Arizona, California, or Nevada law that could be affected by covered activities and could require future take authorization. Factors considered to determine potential for future listing during the term of the LCR MSCP are:
 - ongoing or likely future destruction, modification, or curtailment of a species’ habitat or range of sufficient magnitude that could warrant future listing;
 - the inadequacy of existing regulatory mechanisms to protect a species from ongoing decline of sufficient magnitude that could warrant future listing; or
 - other natural or artificial factors that may affect a species’ continued existence.

N/A = Not applicable.

1 conservation measures for all covered species. Of the 27 covered species, six are listed
2 as threatened or endangered under the ESA.

3 Two of the covered species are nonlisted plants, sticky buckwheat and threecorner
4 milkvetch. As described in Section 1.3.1, the prohibition against take of listed plants is
5 limited under the ESA. The section 7(a)(2) prohibition against jeopardy, however,
6 applies to plants and the USFWS may not issue a section 10(a)(1)(B) incidental take
7 permit if the issuance of that permit would result in jeopardy to a listed plant species.
8 Consequently, conservation measures for sticky buckwheat and threecorner milkvetch are
9 included in the LCR MSCP Conservation Plan to address any impacts that may result
10 from Federal and non-Federal covered activities and to ensure that these activities are not
11 likely to jeopardize the continued existence of these plants.

12 In addition to the covered species, the LCR MSCP HCP includes four “evaluation
13 species.” Evaluation species are species that could become listed in future years and that
14 could be added to the covered species list during LCR MSCP implementation but for
15 which sufficient information is not available at this time to determine their status in the
16 LCR MSCP planning area, to assess the potential effects of covered activities, or to
17 develop specific conservation measures. The LCR MSCP Conservation Plan (see
18 Chapter 5) includes research studies and pilot management studies for the evaluation
19 species to determine their status in the LCR MSCP planning area and to determine
20 appropriate conservation measures. None of the four evaluation species are presently
21 protected under the ESA.

22 **1.4.3 Covered Activities**

23 The LCR MSCP HCP covers a range of activities by the Applicants that could result in
24 incidental take of covered species. A list of the Applicants is provided in Table 1-1.
25 Activities covered by the LCR MSCP HCP include all non-Federal actions involved in
26 the items listed below:

- 27 ■ water diversions and returns of up to 7.5 mafy from existing facilities,
- 28 ■ diversions and returns for any surplus waters,
- 29 ■ future changes in points of diversion of up to 1.574 mafy,
- 30 ■ implementation of the LCR MSCP,
- 31 ■ present and future flow- and non-flow-related non-Federal actions or projects that are
32 described and analyzed in the LCR MSCP HCP, and
- 33 ■ demand for and receipt of hydropower.

34 A detailed description of the covered activities is provided in Chapter 2. In addition to
35 coverage of non-Federal actions, this HCP includes the analysis of impacts and
36 conservation measures for Federal actions described in Chapter 2 of the companion LCR
37 MSCP BA.

38 The LCR MSCP Conservation Plan (see Chapter 5) includes conservation measures to
39 minimize and mitigate the effects of implementing the non-Federal covered activities

described in Chapter 2 and the Federal activities described in Chapter 2 of the LCR MSCP BA, with the exception of the following BIA agricultural development projects:

- the Chemehuevi Irrigation Project to convert 2,020 acres of existing lands to agricultural uses; and
- 3,832 acres of the total 4,442 acres of development that would remove honey mesquite type IV land cover that provides habitat for the Arizona Bell's vireo (i.e., the only 610 acres of honey mesquite type IV that could be removed are covered under the LCR MSCP).

The agricultural projects will be evaluated independent of the LCR MSCP. At the option of the BIA and/or affected Tribes, any ESA coverage determined to be applicable to these future Tribal farmland development projects may be subsequently considered for coverage through the LCR MSCP.

1.4.4 Duration of Permit

The USFWS's Five-Point Policy for HCPs (65 Federal Register [FR] 106, June 1, 2000) identifies factors to consider when determining the duration of incidental take permits, including:

- the duration of the covered activities and effects on covered species,
- the time required to implement and acquire benefits from conservation measures, and
- the period that may be required to develop sufficient information through monitoring and research to address biological uncertainties.

Based on these factors, the goal of the LCR MSCP is to provide ESA compliance for the next 50 years for covered activities conducted by Federal and non-Federal LCR MSCP participants. The Applicants are requesting a 50-year section 10(a)(1)(B) incidental take permit for all covered species in this HCP. Shortening the permit duration (e.g., to 25 or 35 years) was rejected because many of the covered activities are ongoing and continuing annually and it will take time for replacement habitat created under the LCR MSCP Conservation Plan (see Chapter 5) to develop. A lesser period of time might not allow for implementation of covered activities or the successful implementation of the conservation plan. Increasing the permit duration (e.g., to 75 or 100 years) was rejected because of the uncertainties involved with implementing a conservation plan so far in the future.

1.5 Overview of HCP Process

1.5.1 LCR MSCP Organization

The LCR MSCP has involved and will continue to involve many participating entities. The LCR MSCP Steering Committee has been responsible for the preparation of the

1 documents that establish and define the LCR MSCP and provide compliance with
 2 environmental laws and regulations⁵. LCR MSCP participants are agencies and other
 3 entities (including Steering Committee members) that have participated in the process of
 4 LCR MSCP development, providing input to the Steering Committee. The Applicants
 5 (see Table 1-1) are those non-Federal entities requesting section 10(a)(1)(B) incidental
 6 take permits from the USFWS for the species and activities covered in this HCP.
 7 Following issuance of the section 10(a)(1)(B) permit, the Steering Committee will
 8 continue to operate, as defined under the final FMA that will be prepared among Federal,
 9 state, local, and tribal parties, and will coordinate with the Program Manager (see
 10 Exhibit A). The Program Manager is the position to be established by Reclamation, as
 11 described in the FMA, that will be responsible for implementing the LCR MSCP.

12 **1.5.2 Coordination with Agencies, Tribes, and** 13 **Stakeholders and Public Involvement**

14 Under its Five-Point Policy, the USFWS “strongly encourage[s] potential [permit]
 15 applicants to allow for public participation during the development of the HCP,
 16 particularly if non-Federal public agencies (e.g., State Fish and Wildlife agencies) are
 17 involved” and encourages “applicants for most large-scale, regional HCP efforts to
 18 provide extensive opportunities for public involvement during the planning and
 19 implementation process” (65 FR 106:35256, June 1, 2000). In addition, the USFWS
 20 recommends “that applicants include participation by affected Native American tribes
 21 during the development of the HCP” (65 FR 106:35256, June 1, 2000). This section
 22 provides a summary of the opportunities provided by the LCR MSCP for coordination
 23 with Federal and state agencies and other stakeholders and to solicit public involvement.

24 Since its formal inception in 1995, the LCR MSCP has encouraged and provided
 25 extensive opportunities for public participation in the development of the LCR MSCP
 26 Conservation Plan and the LCR MSCP HCP. At least 28 Federal, state, and local public
 27 agencies have participated in the LCR MSCP development process. Six tribes with tribal
 28 lands within the LCR MSCP planning area (Hualapai, Fort Mojave, Chemehuevi,
 29 Colorado River Indian Tribes [CRIT], Fort Yuma Quechan, and Cocopah) have
 30 participated in the process, including government-to-government meetings with
 31 Reclamation and the USFWS. Meetings between Reclamation, the USFWS, and State
 32 representatives and tribal leaders have been conducted with all six tribes. In addition to
 33 public agencies and tribes, private interest groups and individuals have been involved at
 34 their discretion in development of the LCR MSCP HCP, including groups representing
 35 recreational and environmental interests.

36 The LCR MSCP Steering Committee and its various subcommittees have met frequently
 37 in public places, mostly in Las Vegas (Nevada), Phoenix (Arizona), and Ontario
 38 (California). Since 1998, an average of 32 meetings of the Steering Committee and
 39 subcommittees have been held per year (nearly three meetings per month). The purpose
 40 of these meetings was to develop and provide guidance for development of the LCR
 41 MSCP and its supporting documents, including:

⁵ See discussion of LCR MSCP in *Southwest Center for Biodiversity v. U.S. Bureau of Reclamation*, 143 F.3d 515, 519 n.1 (9th Cir. 1998).

- 1 ■ identifying the LCR MSCP program and biological goals;
- 2 ■ the scope of the LCR MSCP (i.e., LCR MSCP covered activities, covered species,
3 geographic scope, and conservation commitments); and
- 4 ■ a framework for implementing the LCR MSCP, including commitments of the LCR
5 MSCP participants to funding and implementing the LCR MSCP Conservation Plan.

6 Since 1998, the LCR MSCP has operated a public web site at www.lcrmscp.org. The
7 web site has been regularly maintained and includes:

- 8 ■ a summary of the program,
- 9 ■ contact information of LCR MSCP participants,
- 10 ■ schedule of upcoming meetings,
- 11 ■ meeting notes from past meetings, and
- 12 ■ links to related news items and web pages.

13 Through the LCR MSCP web site, relevant steps, decisions, and documents in the
14 development of the LCR MSCP HCP have been made available to the public. In addition
15 to the LCR MSCP web site, Reclamation's Lower Colorado Regional Office maintains a
16 web site at www.usbr.gov/lc/region/g2000/mscp. Reclamation's web site includes
17 documents relevant to the joint NEPA/CEQA process and particularly the public scoping
18 process.

19 In 1999, Reclamation, the USFWS, and the Metropolitan Water District of Southern
20 California (Metropolitan) prepared a public involvement plan (PIP) for the LCR MSCP
21 that was reviewed by the LCR MSCP participants and made available on Reclamation's
22 Lower Colorado Region web page. The PIP identified key issues and public outreach
23 initiatives and addressed the process for scoping for NEPA and CEQA compliance and
24 responding to comments on public draft and final LCR MSCP EIS/EIR documents.

25 The LCR MSCP maintains an extensive mailing list for both email and postal delivery.
26 Most LCR MSCP products have been emailed for review and comment to more than
27 80 individuals representing a wide range of Federal, state, and local agencies and private
28 interest groups. In addition, preliminary draft and draft documents have been put on
29 compact discs (CDs) and mailed on request.

30 As part of the joint NEPA/CEQA process, a notice of intent/notice of preparation to
31 prepare the LCR MSCP EIS/EIR was published in the Federal Register in May 1999
32 (64 FR 95:27000–27002, May 18, 1999) and a supplemental notice of intent/notice of
33 preparation was published in July 2000 (65 FR 194:43031–43034, July 12, 2000). Public
34 scoping meetings were held in 1999, 2000, and 2003. Seven public meetings were held
35 in June–July 1999 at Lake Havasu City, Arizona; Laughlin, Nevada; Henderson, Nevada;
36 Yuma, Arizona; Phoenix, Arizona; Blythe, California; and Ontario, California. Four
37 public meetings were held in July–August 2000 at Yuma, Arizona; Blythe, California;
38 Henderson, Nevada; and Laughlin, Nevada. Three scoping meetings were held in
39 November 2003 in Yuma, Arizona; Blythe, California; and Laughlin, Nevada.
40 Newsletters and news releases were distributed prior to the 1999 and 2000 scoping
41 meetings, and news releases were distributed prior to the 2003 meetings.

1 On June 18, 2004, the U.S. Department of the Interior provided notice in the Federal
 2 Register of the availability of draft documents regarding the LCR MSCP for public
 3 review and comment. (See 69 FR 34185–34187.) Approximately 360 copies of the Draft
 4 LCR MSCP EIS/EIR, HCP, and BA were distributed to agencies, public libraries, Indian
 5 tribes, organizations, and individuals for review during a 60-day period ending on August
 6 18, 2004. Additionally, three public hearings were held in Henderson, Nevada; Blythe,
 7 California; and Phoenix, Arizona on July 20–22, 2004 in order to receive public
 8 comments on the Draft EIS/EIR.

9 Coordination with public agencies and tribes and public outreach have been key elements
 10 in the development of the LCR MSCP HCP and will continue to be key elements in
 11 implementation of the LCR MSCP.

12 1.5.3 Coordination with Science Review Panels

13 Under its Five-Point Policy, the USFWS “encourage[s] the use of scientific advisory
 14 committees during development and implementation of an HCP” (65 FR 106:35256,
 15 June 1, 2000). In addition to frequent meetings of the LCR MSCP Biological
 16 Subcommittee, the LCR MSCP engaged in independent peer review during development
 17 of the LCR MSCP Conservation Plan on two separate occasions. An early scientific peer
 18 review was conducted by a panel assembled by the Scientific Peer Advisory and Review
 19 Services Division of the American Institute of Biological Sciences in 1999. The second
 20 scientific peer review was conducted by a panel assembled by M3 Research in 2002 and
 21 completed in 2003. The results of the 1999 and 2002–2003 scientific peer review
 22 processes are described in Chapter 10, “Experts Contacted and Peer Review Process.”

23 1.6 Document Organization

24 The Final LCR MSCP documents comprise five volumes:

- 25 ■ Volume I: *Environmental Impact Statement/Environmental Impact Report*;
- 26 ■ Volume II: *Habitat Conservation Plan*;
- 27 ■ Volume III: *Biological Assessment*;
- 28 ■ Volume IV: *Appendices to Volumes I–III and V*, Table 1-3 lists the appendices and
 29 indicates which ones are referenced in Volumes I–III; and
- 30 ■ Volume V: *Responses to Comments on LCR MSCP Volumes I–IV*.

31 The LCR MSCP HCP provides all information required by the ESA section 10(a)(1)(B)
 32 and the USFWS section 10(a)(1)(B) regulations (50 C.F.R. Part 17). Below is a summary
 33 of the contents of each chapter of the LCR MSCP HCP.

- 34 ■ Chapter 2, “Description of Covered Activities,” describes the covered activities for
 35 which ESA take authorization is being sought.

- 1 ■ Chapter 3, “Resources of the LCR,” describes the historical and existing river
 2 ecosystem and vegetation of the LCR relevant to the species covered in the LCR
 3 MSCP HCP and the approach to assessing habitat for each of the covered species.
- 4 ■ Chapter 4, “Analysis of Impacts and Level of Take,” contains the analysis of impacts
 5 on covered species expected to result from covered activities and implementation of
 6 the LCR MSCP Conservation Plan.
- 7 ■ Chapter 5, “Conservation Plan,” provides the conservation plan that will be
 8 implemented under the LCR MSCP. The LCR MSCP Conservation Plan includes a
 9 description of biological goals; conservation measures that minimize and mitigate
 10 impacts on covered species; and the monitoring, research, and adaptive management
 11 program. Included in the adaptive management program are means for addressing
 12 changed circumstances, procedures for addressing unforeseen circumstances, and
 13 procedures to gauge the effectiveness of existing conservation measures and modify
 14 or replace those measures as the need arises.
- 15 ■ Chapter 6, “Governance and Implementation Structure,” describes the governance
 16 and implementation structure that will be described in the final FMA and roles and
 17 responsibilities of the LCR MSCP Steering Committee and Program Manager for
 18 implementation of the LCR MSCP.
- 19 ■ Chapter 7, “Implementation Costs and Funding Sources,” provides an estimate of the
 20 LCR MSCP implementation costs, the methods used to estimate those costs, and the
 21 sources of funding to implement the LCR MSCP.
- 22 ■ Chapter 8, “Assurances,” describes commitments from the USFWS requested by the
 23 Applicants.
- 24 ■ Chapter 9, “Alternatives to Take Considered and Rejected,” describes the alternatives
 25 to take that were considered and the reasons why these alternatives were not
 26 proposed to be used.
- 27 ■ Chapter 10, “Experts Contacted and Peer Review Process,” provides a list of names
 28 of species experts contacted and a summary of the scientific review process
 29 conducted during the development of the LCR MSCP and LCR MSCP HCP.
- 30 ■ Chapter 11, “List of Preparers,” provides the names and organizations of individuals
 31 involved in the development of the LCR MSCP and LCR MSCP HCP.
- 32 ■ Chapter 12, “References,” lists the references and personal communications cited in
 33 the LCR MSCP HCP.

34 **Table 1-3.** List of Appendices to LCR MSCP Volumes I–III and V (Volume IV)

Appendix	Referenced in Volume I, LCR MSCP EIS/EIR	Referenced in Volume II, LCR MSCP HCP	Referenced in Volume III, LCR MSCP BA
A The Law of the River	X	X	X
B Notices of LCR MSCP EIS/EIR Preparation	X		
C LCR MSCP Scoping Summary Reports	X		
D Non-Covered Sensitive Species Potentially Present in the Planning Area and Off-Site Conservation Areas	X		

Appendix	Referenced in Volume I, LCR MSCP EIS/EIR	Referenced in Volume II, LCR MSCP HCP	Referenced in Volume III, LCR MSCP BA
E Additional Background Information on the Bureau of Reclamation's Cultural Resource Identification Effort	X		
F EIS Disclosure Statement Concerning the Preparation of an EIS/EIR for the Lower Colorado River Multi-Species Habitat Conservation Plan	X		
G Covered Colorado River Water Contracts		X	X
H Summary of Land Cover Types by River Reach and Landowner		X	X
I Status of LCR MSCP Covered Species	X	X	X
J Technical Documentation of Ongoing and Future Operations		X	X
K Hydrologic Depletion Analysis of the Effects of Changes in Points of Diversion on Water Elevations and Land Cover Types		X	X
L Reach 7 Effects		X	X
M Effects of LCR MSCP Flow-Related Activities on Lake Mead		X	X
N Detailed Implementation Cost Estimate Assumptions		X	
O Major Facilities on the Lower Colorado River			X
P Field Working Agreement between Department of the Interior, Bureau of Reclamation, and Department of the Army, Corps of Engineers for Flood Control Operation of Hoover Dam and Lake Mead			X
Q Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in <i>Arizona v. California</i> dated March 9, 1964			X
R History of River Work and Maintenance			X
S Relevant Sections of Western Area Power Administration's and Bureau of Reclamation's Joint Operating Agreement and Master Agreement			X
T List of Common Names and Scientific Names for Plants and Wildlife Mentioned in the LCR MSCP HCP and BA		X	X
U Acronyms and Abbreviations Used in the LCR MSCP HCP and BA		X	X
V Glossary of Terms Used in the LCR MSCP HCP and BA		X	X