

# 1 Chapter 1. Introduction

## 2 1.1 Background

3 The Bay Delta Conservation Plan (BDCP or “Plan”), which has been developed through  
4 a collaboration of public water agencies, State and federal fish and wildlife agencies,  
5 non-governmental organizations, agricultural interests, and the general public, is intended  
6 to address the increasingly significant and intensifying conflict between the ecological  
7 needs of a number of at-risk species adversely affected by a range of human activities and  
8 the need for adequate and reliable water supplies from the Sacramento-San Joaquin River  
9 Delta (Delta), and the streams tributaries thereto, for people, communities, agriculture,  
10 and industry. The BDCP sets out near-term and long-term conservation strategies for the  
11 Delta that reflect the co-equal planning goals of restoring the ecological functions of the  
12 Delta and improving water supply reliability to large portions of the State of California.  
13

14 The BDCP is expected to result in long-term regulatory authorizations under State and  
15 federal endangered species laws for the operations of the State Water Project (SWP) and  
16 the Central Valley Project (CVP), as well as the operations of certain power plants owned  
17 by Mirant Corporation. The plan will further provide the basis for durable regulatory  
18 assurances. Specifically, the goal of the BDCP is to serve as a Natural Community  
19 Conservation Plan (NCCP) under the State’s Natural Community Conservation Planning  
20 Act (NCCPA),<sup>1</sup> and a Habitat Conservation Plan under section 10 of the federal  
21 Endangered Species Act (ESA). The plan will also provide the basis for biological  
22 assessments that support new section 7 consultations between the Bureau of Reclamation  
23 (Reclamation) and the Fish and Wildlife Service (USFWS) and the National Marine  
24 Fisheries Service (NMFS).  
25

26 Unlike past regulatory approaches, which have relied almost exclusively on iterative  
27 adjustments to the operations of the SWP and CVP, the BDCP consists of actions that  
28 will advance fundamental, systemic, and long-term physical changes to the Delta. These  
29 changes, which will involve substantial alterations to water conveyance infrastructure and  
30 water management regimes in combination with extensive restoration of habitat and  
31 actions to reduce the impacts of various biological stressors, will substantially enhance  
32 Delta productivity and ecological processes so as to provide for the conservation of  
33 multiple species and natural communities that depend upon them, while improving water  
34 supply reliability for the export contractors. To further advance this holistic approach  
35 and enhance opportunities for success, the BDCP has been designed to accommodate and  
36 respond over time to new information and increased scientific understanding of the Delta.  
37

38 The BDCP sets out an integrated strategy to achieve the overarching planning goals of  
39 ecosystem restoration and water supply reliability (see section 1.2 *BDCP Overall Goals*  
40 *and Objectives*) and meet a range of specific biological goals and objectives (see section  
41 3.3 *Biological Goals and Objectives*). The BDCP includes a description of each element  
42 of the strategy and the rationale for its incorporation in the Plan. The BDCP further

---

<sup>1</sup> The BDCP has also been designed to meet the regulatory standards of the California Endangered Species Act.

1 describes the expected contribution of each plan element toward advancing both the  
2 overall planning goals and specific biological goals and objectives. The strategy was  
3 informed by findings and conceptual models developed over time through prior scientific  
4 efforts, including those conducted by the CALFED Science Program, and supplemented  
5 by data and analysis developed through the BDCP process. The strategy was built upon  
6 the following scientific tenets and reflects the current state of available science:

- 7 • Increase the quality, availability, spatial diversity, and complexity of aquatic  
8 habitat within the Delta;
- 9 • Create new opportunities to restore the ecological health of the Delta by  
10 modifying the water infrastructure to convey water around the Delta, reducing  
11 reliance on conveyance of water through manmade and natural channels in the  
12 Delta to export pumping plants in the southern Delta;
- 13 • Directly address key ecosystem drivers unrelated to freshwater flow patterns  
14 rather than manipulation of Delta flow patterns alone;
- 15 • Improve connectivity among aquatic habitats, facilitate migration and movement  
16 of covered fish among habitats, and provide transport flows for the dispersal of  
17 planktonic material (organic carbon), phytoplankton, zooplankton,  
18 macroinvertebrates, and fish eggs and larvae;
- 19 • Improve synchrony between environmental cues and conditions and the life  
20 history of covered fish and their food resources within the upstream rivers, Delta,  
21 and Suisun Bay, including the hydrologic seasonal synchrony within the  
22 watershed, seasonal water temperature gradients, salinity gradients, turbidity, and  
23 other environmental cues;
- 24 • Reduce sources of direct mortality and other stressors on the covered fish and the  
25 aquatic ecosystem within the Delta;
- 26 • Improve habitat conditions for covered fish in upstream river reaches, within the  
27 Delta, and downstream within the low salinity zone of the estuary in Suisun Bay  
28 through the integration of water operations with physical habitat enhancement and  
29 restoration; and
- 30 • Rely, to the extent possible, on natural physical habitat and biological processes to  
31 support and maintain covered fish species and their habitat.

32 The BDCP covers the areas known as the Sacramento-San Joaquin Delta, as defined by  
33 California Water Code Section 12220 (“statutory Delta”), as well as certain additional  
34 areas in which conservation measures set out in the Plan will likely be implemented (see  
35 section 1.4.1 *Geographic Scope*). The geographic scope of the BDCP encompasses those  
36 areas in which the activities that have been proposed for regulatory coverage under the  
37 Plan will occur.

38  
39 Because the infrastructure of the State and federal water projects, however, comprises an  
40 integrated system that extends beyond the boundaries of the Delta, the effects of  
41 implementing the BDCP will extend to water operations and species and their habitats  
42 both inside and outside of the Delta. While the BDCP Plan Area generally does not

1 include areas upstream and downstream of the Delta, the Plan will take into account and  
2 address the upstream and downstream effects of covered activities, both beneficial and  
3 adverse.

4  
5 ***The BDCP Steering Committee and the Planning Agreement***

6  
7 In January 2006, a number of stakeholders with diverse interests in the Delta agreed to a  
8 Statement of Principles that called for the development of a comprehensive conservation  
9 plan for the Delta.<sup>2</sup> The parties envisioned a plan that would advance the recovery of fish  
10 and wildlife species affected by certain water supply-related activities and provide long-  
11 term assurances regarding the operation of existing and future water-related facilities and  
12 for other associated activities.

13  
14 In July 2006, several of these parties entered into a memorandum of agreement (MOA)  
15 entitled *For Supplemental Funding for Certain Ecosystem Actions and Support for*  
16 *Implementation of Near-Term Water Supply, Water Quality, Ecosystem, and Levee*  
17 *Action*.<sup>3</sup> The MOA reiterated the commitment of these parties to fund and initiate the  
18 development of a conservation plan for the Delta that would support authorizations under  
19 State and federal endangered species laws for current and future actions of the SWP and  
20 CVP.

21  
22 During the same period, the BDCP Steering Committee was formed, consisting of public  
23 water agencies, environmental and conservation organizations, state and federal agencies,  
24 and other interested groups (Table 1.1). In October 2006, the members of the Steering  
25 Committee entered into a formal Planning Agreement, consistent with requirements of  
26 the NCCPA,<sup>4</sup> for the development of a conservation plan for the Delta. The Planning  
27 Agreement, among other things, defined the goals, commitments, and expectations of the  
28 parties regarding the BDCP planning process.

29  

---

<sup>2</sup> Appendix XX [Jan 2006 Statement of Principles

<sup>3</sup> Appendix XX MOA For Supplemental Funding for Certain Ecosystem Actions and Support for  
Implementation of Near-Term Water Supply, Water Quality, Ecosystem, and Levee Action, July 2006.).

<sup>4</sup> Appendix XX BDCP Planning Agreement and amendments

1

**Table 1.1 BDCP Steering Committee Members**

<b>State and Federal Agencies</b>
California Natural Resources Agency
California Department of Water Resources
California Bay-Delta Authority
State Water Resources Control Board
U.S. Bureau of Reclamation
U.S. Army Corps of Engineers
<b>Potential Regulated Entities (PREs)</b>
Kern County Water Agency
Metropolitan Water District of Southern California
Mirant Delta, LLC
San Luis & Delta-Mendota Water Authority
Santa Clara Valley Water District
Westlands Water District
Zone 7 Water Agency
<b>Environmental Organizations</b>
American Rivers
Defenders of Wildlife
Environmental Defense Fund
Natural Heritage Institute
The Bay Institute
The Nature Conservancy
<b>Other Agencies</b>
California Farm Bureau Federation
Contra Costa Water District
Friant Water Authority
North Delta Water Agency
<b>Fishery Agencies (<i>ex officio</i> Members)</b>
California Department of Fish and Game
U.S. Fish and Wildlife Service
National Oceanic and Atmospheric Administration, National Marine Fisheries Service

2

3

4

5

6

7

8

9

10

11

12

13

The Steering Committee was charged with the responsibility for assisting in the development of a comprehensive conservation plan for the Delta sufficient to meet the goals of ecosystem restoration and water supply reliability. The BDCP Planning Agreement reinforced the goal of the members to develop a conservation plan sufficient to meet the requirements of the ESA and the NCCPA. The goal of the BDCP is to develop a plan, with the guidance of the Steering Committee, to meet both sets of regulatory standards.

*[Note to Reviewers: Additional text will be added that provides background on CALFED and describes the recently-enacted Delta legislation]*

## 1.2 BDCP Planning Goals and Conservation Objectives

The overarching goals of the BDCP are to advance the restoration of the ecological functions in the Delta and improve the reliability of water supplies, as first stated in the Statement of Principles and reaffirmed in the BDCP Planning Agreement. The Planning Agreement further articulated specific planning goals to guide the development of the Plan and further ensure its consistency with the overarching goals of the program. The planning goals for the BDCP are as follows:

- Provide for the conservation and management of covered species within the Planning Area;
- Preserve, restore and enhance aquatic, riparian and associated terrestrial natural communities and ecosystems that support covered species within the Planning Area through conservation partnerships;
- Allow for projects to proceed that restore and protect water supply, water quality, and ecosystem health within a stable regulatory framework;
- Provide a means to implement covered activities in a manner that complies with applicable state and federal fish and wildlife protection laws, including CESA and ESA, and other environmental laws, including CEQA and NEPA;
- Provide a basis for permits necessary to lawfully take covered species;
- Provide a comprehensive means to coordinate and standardize mitigation and compensation requirements for covered activities within the Planning Area;
- Provide a less costly, more efficient project review process which results in greater conservation values than project-by-project, species-by-species review; and
- Provide clear expectations and regulatory assurances regarding covered activities occurring within the Planning Area.

Throughout the planning process, the Steering Committee worked to develop a plan consistent with these planning goals. The BDCP reflects these goals and provides the basis for conservation and regulatory outcomes intended by the parties.

The BDCP process was also guided by a preliminary set of conservation objectives that were first expressed in the Planning Agreement. These preliminary conservation objectives included the following:

- Provide for the protection of covered species and associated natural communities and ecosystems that occur within the Planning Area;
- Preserve the diversity of fish, wildlife, plant and natural communities within the Planning Area;
- Minimize and mitigate, as appropriate, the take of proposed covered species;
- Preserve and restore habitat and contribute to the recovery of covered species;
- Reduce the need to list additional species;
- Set forth species-specific goals and objectives;
- Set forth specific habitat-based goals and objectives;

- 1 • Implement an adaptive management and monitoring program to respond to
- 2 changing ecological conditions; and
- 3 • Avoid actions that are likely to jeopardize the continued existence of covered
- 4 species or result in the destruction or adverse modification of critical habitat.
- 5

6 These planning goals and preliminary conservation objectives set the initial direction for  
7 the BDCP planning process. As the planning process progressed, the Steering Committee  
8 identified specific biological goals and objectives that express the biological outcomes  
9 that are expected to occur through the implementation of the plan. These specific  
10 biological goals and objectives are described in section 3.3 *Biological Goals and*  
11 *Objectives*, and are framed at three hierarchical levels: ecological goals and objectives;  
12 natural community goals and objectives; and species-specific goals and objectives. The  
13 biological goals are broad, guiding principals that shaped the BDCP conservation  
14 strategy. The biological objectives reflect the different components needed to achieve a  
15 biological goal and include measureable metrics by which progress in meeting biological  
16 goals can be tracked and evaluated.

### 17 **1.3 Regulatory Context**

#### 18 **1.3.1 Regulatory Purpose of the BDCP**

19  
20 The BDCP addresses the goals of ecological restoration and water supply reliability  
21 through the regulatory processes of the ESA and the NCCPA. The BDCP provides a  
22 comprehensive solution to the regulatory challenges facing the SWP and CVP that  
23 includes systemic changes to water conveyance infrastructure and broad-scale restoration  
24 and enhancement of ecological resources. The BDCP affords an opportunity to move  
25 beyond the cycle of litigation that has compelled incremental and disruptive adjustments  
26 to the operations of the existing water supply infrastructure and toward a long-term,  
27 stable regulatory environment that provides for water supply reliability and ecological  
28 recovery.

29  
30 To accomplish this goal, the BDCP has been prepared as a joint HCP/NCCP that  
31 provides the basis for non-federal entities to obtain incidental take authorizations from  
32 USFWS and NMFS pursuant to section 10 of the ESA and from DFG under section 2835  
33 of the NCCPA,<sup>5</sup> and potentially under section 2081 of the California Endangered Species  
34 Act. DWR, certain SWP contractors, and Mirant are seeking regulatory coverage under  
35 the ESA and the NCCPA to ensure that their activities within the geographic scope of the  
36 Plan, including exports, diversions, or other uses of water from the Delta and its  
37 tributaries, comply with these laws. The BDCP will further provide the basis for  
38 biological assessments (BA) to support the issuance of take authorizations from USFWS  
39 and NMFS to Reclamation pursuant to section 7 of the ESA, for its actions in the Delta.<sup>6</sup>

---

<sup>5</sup> 16 U.S.C. § 1539.; California Fish and Game Code (Fish & Game Code) § 2835 *et seq.*

<sup>6</sup> CVP contractors will receive incidental take authorizations through section 7 of the ESA, as appropriate. If any Reclamation actions associated with implementation of the CVP are determined to be nondiscretionary in the future, the CVP contractors may become eligible to seek take authorization, and regulatory assurances, through section 10 of the ESA.

1  
2 To meet these regulatory objectives, the BDCP sets out a comprehensive conservation  
3 strategy that will address the adverse effects of SWP and CVP actions that occur within  
4 the Plan Area on aquatic and terrestrial species, including those listed under the ESA or  
5 CESA as threatened, endangered, or candidates for listing, as well as on critical habitat, if  
6 any, that has been designated for these species (see Chapter 3 *Conservation Strategy*).  
7 The biological assessment for CVP-related activities in the Delta will adopt the BDCP  
8 conservation strategy as it relates to those federal actions and will serve as a companion  
9 document to the BDCP. Biological opinions and associated take authorizations issued to  
10 Reclamation on the basis of the biological assessment will cover related actions of the  
11 CVP contractors. It should be noted that the BDCP does not attempt to distinguish  
12 precisely between the effects on covered species attributable to the CVP covered  
13 activities and those of the SWP. Rather, the BDCP includes a comprehensive analysis of  
14 the effects associated with both the SWP and the CVP within the BDCP Plan Area and  
15 proposes a conservation strategy that adequately addresses the totality of those effects.  
16 On the basis of the BDCP and the companion biological assessment, USFWS and NMFS  
17 are expected to issue section 10 permits and new biological opinions that supersede  
18 biological opinions existing at that time as they relate to SWP and CVP actions covered  
19 by the BDCP.  
20

### 21 **1.3.1 Recent Litigation History**

22  
23 Recent federal court decisions regarding the intersection of the federal and state  
24 endangered species acts and the operation of the State and federal water projects have  
25 further exacerbated conflicts over species conservation and water supply needs. These  
26 decisions have compelled federal officials to issue new rules governing the operations of  
27 the SWP and CVP under court-mandated schedules. These rules have translated into  
28 additional new restrictions on water supplies to 25 million Californians in the Bay Area,  
29 Central Valley, and southern California, supplies that were previously constrained  
30 because of a worsening environmental crisis in the Delta, prior pumping restrictions  
31 ordered by a federal court in 2007, and state-wide drought conditions. These recent legal  
32 proceedings are but part of a succession of legal battles that have served to further  
33 reinforce the need for comprehensive, legally-defensible solutions to the environmental  
34 and water supply challenges associated with the Delta.  
35

### 36 **1.3.2 The Federal Endangered Species Act**

37  
38 The ESA has three major components relevant to the BDCP: the Section 7 requirement  
39 that federal agencies ensure, in consultation with the federal fish and wildlife agencies,  
40 that their actions are not likely to jeopardize the continued existence of species or result  
41 in modification or destruction of critical habitat; the Section 9 prohibition against the  
42 “taking” of listed species; and the Section 10 provisions that provide for the permitting of  
43 non-federal entities for the incidental take of listed species.  
44

45 Section 7 of the ESA provides that each federal agency must ensure, in consultation with  
46 the Secretary of Interior or Commerce, that any actions authorized, funded, or carried out

1 by the agency are not likely to jeopardize the continued existence of any endangered or  
2 threatened species or result in the destruction or adverse modification of areas determined  
3 to be critical habitat.<sup>7</sup> Section 7 requires federal agencies to engage in formal  
4 consultation with USFWS or NMFS for any proposed actions that are likely to adversely  
5 affect listed species. A biological opinion is issued by USFWS or NMFS at the  
6 completion of formal consultation. The biological opinion can conclude that the project  
7 as proposed is either likely or not likely to jeopardize the continued existence of the  
8 species. If the biological opinion concludes “no jeopardy,” the action can proceed as  
9 proposed. If the biological opinion concludes “jeopardy,” USFWS or NMFS will  
10 identify “reasonable and prudent alternatives” to the proposed action that would avoid  
11 jeopardizing the species. Included in the biological opinion is an incidental take  
12 statement that authorizes a specified level of take anticipated to result from the proposed  
13 action. The incidental take statement contains “reasonable and prudent measures” that  
14 are designed to minimize the level of incidental take and that must be implemented as a  
15 condition of the take authorization.<sup>8</sup>

16  
17 Section 9(a)(1)(B) of the ESA prohibits the take by any person of any endangered fish or  
18 wildlife species; take of threatened fish or wildlife species is prohibited by regulation.  
19 The ESA prohibits the take of any listed threatened fish or wildlife species in violation of  
20 any regulation promulgated by the USFWS or NMFS. “Take” is defined broadly to mean  
21 harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in  
22 any such conduct.<sup>9</sup> “Harm” is defined by regulation to mean an act which actually kills  
23 or injures wildlife, including those activities that cause significant habitat modification or  
24 degradation resulting in the killing or injuring of wildlife by significantly impairing  
25 essential behavior patterns, including breeding, feeding, or sheltering.<sup>10</sup> The take  
26 prohibitions of the ESA apply unless take is otherwise specifically authorized or  
27 permitted pursuant to the provisions of section 7 or section 10 of the ESA. The  
28 protections for listed plant species under the ESA are more limited than for fish and  
29 wildlife.<sup>11</sup>

30  
31 Section 10 of the ESA specifically addresses the authorization for take by non-federal  
32 entities through the development of a HCP. For those actions for which no federal

---

<sup>7</sup> 16 U.S.C. § 1536(a)(2).

<sup>8</sup> 50 C.F.R. § 402.14(i)(5).

<sup>9</sup> 16 U.S.C. § 1532 (1988).

<sup>10</sup> 50 C.F.R. § 17.3. NMFS has a similar definition that adds the concepts of spawning and migrating to examples of injury. NMFS defines “harm” as “an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering.” (50 C.F.R § 222.102).

<sup>11</sup> Section 9(a)(2)(B) of the ESA prohibits removal, possession, or malicious damage or destruction of endangered plants in areas under federal jurisdiction, as well as actions that remove, cut, dig up, damage, or destroy endangered plants in areas outside of federal jurisdiction in violation of any state law or regulation, including state criminal trespass law. Protection for threatened plant species is limited to areas under federal jurisdiction. 50 C.F.R. § 17.71(a). The ESA section 7(a)(2) prohibition against jeopardy applies to plants, wildlife, and fish equally, and USFWS and NMFS may not issue a section 10(a)(1)(B) permit if the issuance of that permit would result in jeopardy to any listed species.

1 nexus exists, private individuals, corporations, state and local government agencies, and  
2 other non-federal entities who wish to conduct otherwise lawful activities that may  
3 incidentally result in the take a listed species must first obtain a section 10 incidental take  
4 permit from USFWS or NMFS. The non-federal entity is required to develop an HCP as  
5 part of the permit application process.

6  
7 The BDCP is intended to meet all regulatory requirements necessary for USFWS and  
8 NMFS to issue section 10 permits to allow incidental take of all proposed covered species  
9 as a result of covered activities undertaken by DWR, certain SWP contractors, and  
10 Mirant Corporation, and to issue section 7 biological opinions to authorize incidental take  
11 for covered actions undertaken by USBR and CVP contractors. The BDCP assessment of  
12 direct and indirect effects (Chapter 5 *Assessment of Effects and Level of Take*) on covered  
13 species and critical habitat provides the analyses and information necessary for USBR,  
14 USFWS, and NMFS to meet the analytical requirements of section 7.

### 15 16 **Compliance with the Services' Five-Point Policy Guidance**

17  
18 In June 2000, the USFWS and NMFS adopted a five-point policy designed to clarify  
19 elements of the habitat conservation planning program as they relate to biological goals,  
20 adaptive management, monitoring, permit duration, and public participation.<sup>12</sup> The five-  
21 point policy directs that the following elements be addressed in the development of  
22 habitat conservation plans:

23  
24 Biological Goals and Objectives: HCPs are required to define biological goals and  
25 objectives that the plan is intended to achieve. Biological goals and objectives clarify the  
26 purpose and direction of the plan's conservation program. The BDCP sets out extensive  
27 biological goals and objectives, including specific measurable targets that the Plan is  
28 intended to meet. These targets are based on the best available scientific information and  
29 have been used as parameters and benchmarks to guide the conservation strategies for the  
30 species and natural communities covered by the plan. The biological objectives of the  
31 BDCP are described in Chapter three.

32  
33 Adaptive Management: The five-point policy encourages the inclusion of adaptive  
34 management strategies in HCPs in appropriate circumstances to address uncertainty  
35 related to species covered by a plan. The agencies describe adaptive management as a  
36 "method for examining alternative strategies for meeting measurable biological goals and  
37 objectives, and then if necessary, adjusting future conservation management actions  
38 according to what is learned."<sup>13</sup> The BDCP incorporates an adaptive management  
39 process that is designed to facilitate and improve decision-making during the  
40 implementation of the Plan and identify adjustments and modifications, as defined in the  
41 Plan, to the conservation strategy as new information becomes available over time. The  
42 framework for the BDCP adaptive management program is set out in section 3.6 *Adaptive*  
43 *Management Plan*.

---

<sup>12</sup> Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting, 65  
FR 106, June 1, 2000 (hereinafter referred to as the "Five Point Policy")

<sup>13</sup> 65 FR at X..

1  
2 Monitoring: HCPs are required to include provisions for monitoring to gauge the  
3 effectiveness of the plan in meeting the biological goals and objectives and to verify that  
4 the terms and conditions of the plan are being properly implemented. The biological and  
5 compliance monitoring provisions of the BDCP are found in section 3.5 *Monitoring and*  
6 *Research Program*.

7  
8 Permit Duration: Consistent with the five-point policy, the USFWS and NMFS consider  
9 several factors in determining the term of an incidental take permit. The agencies, for  
10 instance, take into account the expected duration of the activities proposed for coverage  
11 and the anticipated positive and negative effects on covered species that will likely occur  
12 during the course of the plan. The agencies also factor in the level of scientific and  
13 commercial data underlying the proposed operating conservation program, the length of  
14 time necessary to implement and achieve the benefits of the operating conservation  
15 program, and the extent to which the program incorporates adaptive management  
16 strategies. The duration of the permits to be issued pursuant to the BDCP is anticipated  
17 to be 50 years.

18  
19 Public Participation: Under the five-point policy, the federal fish and wildlife agencies  
20 have sought to increase public participation in the HCP process, including greater  
21 opportunity for the public to assess, review, and analyze HCPs and associated NEPA  
22 documentation. As part of this effort, the agencies have expanded the public review  
23 process for most HCPs, particularly those with regional scopes. As described in section  
24 1.5.2, the BDCP process afforded extensive opportunities for public involvement and  
25 input throughout the development of the plan.

### 26 27 **1.3.3 Natural Community Conservation Planning Act**

28  
29 The Natural Community Conservation Planning Act (NCCPA) provides a mechanism for  
30 compliance with State endangered species regulatory requirements through the  
31 development of comprehensive, broad-scale conservation plans that focus on the needs of  
32 natural communities and the range of species that inhabit them.<sup>14</sup> The NCCP program  
33 has provided the basis for successful collaborations throughout California between State  
34 and federal agencies, local governments, community groups, and private interests that  
35 have resulted in long-term, habitat-based protections for regional biodiversity and related  
36 ecosystems. It has also proved to be an effective tool in achieving these protections while  
37 reducing conflicts between conservation goals and the reasonable use of natural resources  
38 and lands for economic development. The BDCP adopts the approaches set out in the  
39 NCCPA and incorporates those elements necessary to meet regulatory requirements of  
40 the Act.

41  
42 Specifically, the BDCP has been developed in a manner consistent with the process  
43 identified in its Planning Agreement, including processes to ensure ample public  
44 participation and engagement throughout Plan development and review, extensive input

---

<sup>14</sup> Fish & Game Code § 2800 *et. seq.*

1 from independent scientists, and coordination with federal fish and wildlife agencies with  
2 respect to ESA requirements. Consistent with the requirements of the NCCPA, the Plan  
3 further provides a multi-faceted approach to provide for the conservation and  
4 management of covered species and their habitats, incorporating a conservation strategy  
5 that provides for the protection of habitat, natural communities, and species diversity on  
6 an ecosystem level; establishes conservation measures, including measures sufficient to  
7 fully mitigate the effects of covered activities; integrates adaptive management strategies  
8 that can be modified based on new information developed through monitoring; and sets  
9 out a detailed implementation program, including provisions that ensure adequate  
10 funding to carry out the Plan.

11  
12 The BDCP addresses all of the requirements of the NCCPA for aquatic, wetland, and  
13 terrestrial covered species of fish, wildlife, and plants and Delta natural communities  
14 affected by BDCP actions. On that basis, CDFG may issue permits for the taking of the  
15 species proposed for coverage under the Plan.<sup>15</sup>

### 16 17 **1.3.4 California Endangered Species Act**

18  
19 The CESA prohibits the take of State-listed threatened and endangered species of fish,  
20 wildlife, and, in contrast to the ESA, plants.<sup>16</sup> CESA also prohibits the take of candidate  
21 species.<sup>17</sup> “Take” is defined under CESA as “to hunt, pursue, capture, or kill, or attempt  
22 to hunt, pursue, catch, capture, or kill.” The CESA definition of “take” does not include  
23 the ESA’s concepts of “harm” or “harass.”<sup>18</sup> Take authorizations may be obtained under  
24 CESA, provided the permit applicant minimizes and “fully mitigates” the take that will  
25 be caused by the covered activities.<sup>19</sup>

26  
27 *[Note to Reviewers: Additional text describing the relationship between BDCP and*  
28 *CESA will be forthcoming]*

### 29 30 **1.3.5 The National Environmental Policy Act**

31  
32 The purpose of the National Environmental Policy Act (NEPA) is to ensure that federal  
33 agencies consider the environmental impacts of their actions and decisions.<sup>20</sup> NEPA  
34 requires that the federal government use all practicable means and measures to protect  
35 environmental values and makes environmental protection a part of the mandate of every  
36 federal agency and department. To accomplish this goal, NEPA establishes a process and  
37 approach to analysis to determine the environmental impacts associated with proposed  
38 federal actions that significantly affect the quality of the human environment.

39  

---

<sup>15</sup> Fish & Game Code § 2835.

<sup>16</sup> Fish & Game Code § 2080.

<sup>17</sup> Fish & Game Code § 2085.

<sup>18</sup> Fish & Game Code § 86.

<sup>19</sup> Fish & Game Code § 2081(b)(2).

<sup>20</sup> 42 U.S.C. § 4371 *et seq.*

1 The permitting and implementation of the BDCP involve several federal actions and  
2 decisions that are subject to review under NEPA. Reclamation's actions include changes  
3 in the operation of the Delta Cross Channel, an expected agreement with DWR to provide  
4 for wheeling of CVP water through a new isolated conveyance facility, and the  
5 implementation of certain conservation measures through the BDCP Management Entity.  
6 USFWS and NMFS will make decisions regarding the issuance of incidental take permits  
7 under section 10(a)(1)(B) of the ESA. Reclamation, USFWS, and NMFS are joint lead  
8 agencies for the preparation of the BDCP Environmental Impact Statement (EIS). The  
9 U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency  
10 (EPA) are participating in the NEPA process as cooperating federal agencies.

### 11 **1.3.6 The California Environmental Quality Act**

12 The California Environmental Quality Act (CEQA) serves as a counterpart to NEPA, and  
13 applies to all discretionary activities proposed to be carried out or approved by California  
14 public agencies. CEQA requires state and local agencies to identify significant  
15 environmental impacts of their actions and to take all feasible steps to avoid or mitigate  
16 those impacts. CEQA sets forth both procedural and substantive requirements and its  
17 procedures are intended to ensure adequate public participation and input into the  
18 decision-making process.

19 The BDCP is a project subject to CEQA, as are numerous BDCP-related actions that will  
20 be implemented over the term of the plan.<sup>21</sup> DWR serves as the lead agency for the  
21 preparation of the Environmental Impact Report (EIR), which will include analyses of  
22 DWR's proposed adoption of the plan, as well as its implementation of certain projects  
23 covered by the BDCP. Among the BDCP-related projects that will undergo review are  
24 the construction of new conveyance facilities and several identifiable habitat restoration  
25 actions, which are all described in the BDCP. CDFG is participating in the preparation of  
26 the EIR as both a responsible and trustee agency. The EIR will also serve as the CEQA  
27 document for the purpose of regulatory permits issued by CDFG pursuant to the BDCP.

28 The state and federal lead agencies are preparing a joint BDCP EIR/EIS to satisfy CEQA  
29 and NEPA concurrently.

### 30 **1.3.7 Relationship with Existing Biological Opinions**

31 The biological opinions issued by USFWS and NMFS on the basis of the BDCP and its  
32 companion biological assessments will supersede USFWS and NMFS biological opinions  
33 that exist at the time for the coordinated operation of the CVP and SWP to the extent that  
34 the BDCP addresses activities covered by these existing biological opinions.

35  
36  
37  
38  
39  
40  
41  

---

<sup>21</sup> California Public Resources Code (CPRC) section 21000 *et seq.* and CEQA Guidelines 14 CCR 15000 *et seq.*

### 1.3.8 Relationship between the BDCP HCP/NCCP and Other Federal and State Laws and Regulations

The entities receiving incidental take permits will obtain, as appropriate, authorizations under other applicable regulatory statutes necessary to implement the BDCP. These include but are not limited to: California Water Code sections 1000 *et seq.* (water rights), Water Code sections 13000 *et seq.* (water quality), California Fish and Game Code sections 1600 and 5900 *et seq.* (fish screens, channel modification), Clean Water Act section 404 (placement of dredge and fill), Rivers and Harbors Act section 408 (work on levees), Rivers and Harbors Act section 10 (navigation), and the Migratory Bird Treaty Act (migratory birds).

#### Section 404 of the Clean Water Act

In 1972, Congress passed the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), with the goal of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation’s waters.”<sup>22</sup> In furtherance of this goal, the CWA prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under certain sections of the CWA.<sup>23</sup> Specifically, Section 404 authorizes the Corps to issue permits for and regulate the discharge of dredged or fill materials into wetlands or other “waters of the United States.” Under the CWA and its implementing regulations, “waters of the United States” are broadly defined to consist of rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands.<sup>24</sup>

Many of the actions that will be implemented under the BDCP will result in the discharge of dredged or fill materials into “waters of the U.S.” and will need to be authorized by the Corps. These BDCP actions will receive such authorizations through both General Permits and Individual Permits. Typically, General Permits apply to specific classes of activities that have been determined to cause no more than minimal impact to the aquatic environment (e.g., construction of road crossings, installation of utility lines, and operations and maintenance activities).<sup>25</sup> Individual Permits are designed for activities that have the potential to have more than a minimal effect on jurisdictional waters or that otherwise do not qualify under the conditions of a General Permit. Substantively, the Corps must evaluate applications for Individual Permits to determine their consistency with the requirements of the Section 404(b)(1) Guidelines<sup>26</sup> and the Corps’ regulations.<sup>27</sup>

---

<sup>22</sup> 33 U.S.C. § 1251(a).

<sup>23</sup> See 33 U.S.C. §§ 1311, 1342, and 1344.

<sup>24</sup> 33 C.F.R. § 328.3(a)(3).

<sup>25</sup> 33 C.F.R. § 325.5(c).

<sup>26</sup> 40 C.F.R. Part 230.

<sup>27</sup> 33 C.F.R. Part 325.

**Section 10 of the Rivers and Harbors Act**

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the Secretary of the Army for the construction of any structure in or over any navigable water of the United States or the construction of structures or alteration of capacity in any port, canal, navigable river, or other water of the United States.<sup>28</sup> “Navigable waters” under Section 10 of the Rivers and Harbors Act are defined as “those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.”<sup>29</sup> Certain BDCP actions will require authorizations under Section 10.

*[Note to Reviewers: additional text to be added regarding section 408 of the Rivers and Harbors Act addressing modifications to structures (e.g., work on levees)]*

**California Fish and Game Code Section 1600 et seq.**

Section 1602 of the California Fish and Game Code requires any person, state or local governmental agency to provide advance written notification to CDFG prior to initiating any activity that would: (1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; (2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake.<sup>30</sup> The State definition of “lake, rivers, and streams” includes all rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.<sup>31</sup>

Certain actions that will be implemented under the BDCP will require Streambed Alteration Agreements under Section 1602. As part of that process, CDFG will review notifications submitted by the BDCP Management Entity to determine if the proposed project would impact existing fish and wildlife resources that are directly dependent on a lake, river, or stream. If CDFG determines that the proposed activity will not substantially adversely affect an existing fish and wildlife resource, it will notify the Management Entity that no Streambed Alteration Agreement is required and the project may proceed.<sup>32</sup> If CDFG determines that the project may substantially adversely affect an existing fish and wildlife resource, it will require, as part of a Streambed Alteration Agreement, reasonable measures necessary to protect the fish and wildlife resource.<sup>33</sup>

---

<sup>28</sup> 33 C.F.R. § 401 et seq.

<sup>29</sup> 33 C.F.R. § 329.4

<sup>30</sup> Fish & Game Code § 1602.

<sup>31</sup> 14 C.C.R. § 1.72.

<sup>32</sup> Fish & Game Code § 1602(a)(4)(A)(i).

<sup>33</sup> Fish & Game Code § 1603(a).

## 1 **Migratory Bird Treaty Act**

2  
3 The Migratory Bird Treaty Act (MBTA) of 1918 implements four international treaties  
4 for the conservation and management of bird species that may migrate through more than  
5 one country.<sup>34</sup> The MBTA makes it unlawful to take, possess, buy, sell, purchase, or  
6 barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts,  
7 nests, eggs, or products, except as allowed by implementing regulations.<sup>35</sup> For federally  
8 listed migratory bird species covered under the BDCP for which an ESA Section 10(a)  
9 permit has been issued, the Management Entity may also obtain an MBTA permit for  
10 those species.

### 11 **1.4 Scope of the BDCP**

12  
13  
14 This section describes the geographic scope of the BDCP, the types of activities that the  
15 plan covers, and the duration sought for regulatory permits that are issued by the fish and  
16 wildlife agencies pursuant to the plan.

#### 17 **1.4.1 Geographic Scope**

18  
19  
20 The geographic scope of the BDCP encompasses the BDCP Plan Area and additional  
21 areas in which conservation measures may be implemented pursuant to the Plan. The  
22 BDCP Plan Area is delineated by the statutory Sacramento-San Joaquin Delta as defined  
23 in California Water Code Section 12220. Take authorizations issued under the BDCP  
24 will extend to covered activities that occur within the geographic scope of the plan.

25  
26 Certain areas outside the statutory Delta are within the geographic scope of the BDCP  
27 because they provide suitable locations for conservation actions that advance the goals  
28 and objectives of the plan.<sup>36</sup> Areas such as Suisun Marsh, Suisun Bay, and upstream areas  
29 of the upper Yolo Bypass and the area that encompasses the Fremont Weir, for instance,  
30 provide important sites for habitat restoration to support goals and objectives for covered  
31 fish species (Figure 1.1). The BDCP conservation strategy also includes measures that  
32 will be implemented outside of the Plan Area to support or complement regional  
33 conservation planning efforts underway in Yolo, Solano, Contra Costa, San Joaquin, and  
34 Sacramento counties. As such, the geographic scope of the BDCP includes those habitat  
35 lands that are conserved through BDCP contributions to these other regional conservation  
36 programs. To the extent appropriate, these conservation actions will be implemented  
37 through cooperative agreements, or similar mechanisms, between the BDCP  
38 Management Entity and local agencies, interested non-governmental organizations,  
39 landowners, or other parties.

40  
41 Because the SWP and CVP water infrastructure is operated as an integrated system, the  
42 effects of implementing the BDCP will extend beyond the Delta, both upstream and

---

<sup>34</sup> 16 U.S.C. § 703 *et seq.*

<sup>35</sup> 50 C.F.R. § 21.

<sup>36</sup> The BDCP Planning Agreement, howe also recognized the likelihood that the BDCP Conservation Strategy would include actions that would be implemented outside of the Statutory Delta to further advance the goals and objectives of the plan

1 downstream, and will implicate water operational parameters as well as species and their  
2 habitats. Therefore, the BDCP effects analysis takes into account these upstream and  
3 downstream effects, both positive and negative, to ensure that the overall effects of the  
4 BDCP are sufficiently described, analyzed and addressed. Areas potentially affected by  
5 the implementation of the BDCP located outside of the geographic scope of the plan,  
6 have been included in the analysis of effects to ensure that all of the potential effects  
7 within the “action area,” as defined by section 7 of the ESA, have been adequately  
8 assessed.

#### 10 **1.4.2 Covered Natural Communities**

11  
12 Natural communities are distinct and reoccurring assemblages of plants and animals  
13 associated with specific physical environmental conditions and ecological processes. A  
14 natural community occurs across a landscape where similar ecological conditions exist.  
15 The Wildlife and Natural Areas Conservation Act defines natural community as “a  
16 distinct, identifiable, and recurring association of plants and animals that are ecological  
17 interrelated” (California Fish and Game Code subsection 2702[d]). Individual species  
18 occur within the context of natural communities and it is within these communities that  
19 species interact with other species and the physical environment. The NCCPA states that  
20 the purpose of natural community conservation planning is “to sustain and restore those  
21 species and their habitat ...that are necessary to maintain the continued viability of those  
22 biological communities impacted by human changes to the landscape.”<sup>37</sup>

23  
24 To adequately address the natural communities in the Delta that support covered species  
25 and native biodiversity, the BDCP includes measures that sustain and enhance ecological  
26 processes and provide for the protection and restoration of a broad range of natural  
27 communities. Conservation measures have been designed to improve ecological  
28 functions and restore species habitat in the following natural communities:

- 29 • Tidal Perennial Aquatic
- 30 • Tidal Mudflats
- 31 • Tidal Brackish Emergent Wetland
- 32 • Tidal Freshwater Emergent Wetland
- 33 • Valley/Foothill Riparian
- 34 • Nontidal Perennial Aquatic
- 35 • Nontidal Freshwater Permanent Emergent Wetland
- 36 • Alkali Seasonal Wetland Complex
- 37 • Vernal Pool Complex
- 38 • Other Natural Seasonal Wetlands
- 39 • Managed Wetlands
- 40 • Grassland
- 41 • Inland Dune Scrub

42  
43 *[Note to Reviewers: Inclusion of Inland Dune Scrub will be the subject of further*  
44 *discussion]*

---

<sup>37</sup> Fish & Game Code § 2801(h)(i).

1  
2 Although not considered a natural community, cultivated croplands are nonetheless taken  
3 into account in the BDCP Conservation Strategy because, in certain instances, they  
4 provide value as habitat for covered species. Cultivated croplands addressed by the  
5 BDCP have been divided into subtypes that provide varying benefits to different covered  
6 species or groups of covered species. These cultivated cropland subtypes are as follows:

- 7 • Alfalfa
- 8 • Irrigated Pasture
- 9 • Rice
- 10 • Other cultivated crops
- 11 • Orchards
- 12 • Vineyards

13  
14 Collectively, the covered natural communities encompass the habitat used by covered  
15 species within the BDCP Plan Area.

### 16 **1.4.3 Covered Species**

17  
18  
19 The ESA and the NCCPA set forth specific criteria that must be satisfied to support the  
20 issuance of regulatory authorizations that provide for the incidental take of species. The  
21 term “covered species” refers to those species for which incidental take authorizations  
22 may be issued under the BDCP pursuant to State and federal endangered species laws.  
23 The proposed BDCP covered species are identified in Table 1.2.

24  
25 The BDCP seeks regulatory coverage for those species that will potentially be adversely  
26 affected by those activities covered by the Plan. As such, the list of species proposed for  
27 coverage is limited to those species currently protected under state or federal wildlife  
28 laws, and those species that are likely to receive the protection of those laws in the future.  
29 The list of covered species is not intended to include all species that occur within the  
30 BDCP Plan Area or all species and habitats that will directly or indirectly benefit from  
31 implementation of the BDCP. Rather, the covered species list reflects the range of  
32 species for which regulatory authorizations are needed under State and/or federal law for  
33 any take associated with the activities covered by the BDCP. Species not covered under  
34 the BDCP will benefit from the measures that provide for the conservation of natural  
35 communities that encompass both common and rare species.

### 36 **Species Evaluated for Coverage**

37  
38  
39 The species evaluated for potential coverage under the BDCP include a broad range of  
40 fish and wildlife species that are likely to occur within the geographic scope of the Plan  
41 and are currently considered to be rare, sensitive, threatened or imperiled, or likely to be  
42 so in the future (*Appendix X – full list of species considered with criteria evaluation*  
43 *results*). Many of the species on the list have been granted protected or special status,  
44 including those that have been listed under the state and/or federal endangered species  
45 acts or other laws or regulations. This list further included species that have been  
46 recognized by the scientific community as warranting concern due to their rarity or

1 ecological importance. Among the species included on the list are those with the  
2 following special status:

- 3
- 4 • Listed as threatened or endangered under the ESA;
- 5 • Proposed or candidates for listing under ESA;
- 6 • Listed as threatened or endangered under CESA;
- 7 • Candidates for listing under CESA;
- 8 • California species of special concern identified by CDFG;
- 9 • California fully protected species under California Fish & Game Code sections  
10 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish);
- 11 • USFWS birds of conservation concern;
- 12 • NMFS species of concern;
- 13 • Plants listed as rare under the California Native Plant Protection Act (NPPA); or
- 14 • Plants included in the California Native Plant Society (CNPS) List 1A, 1B, or 2.

### 15

### 16 **Evaluation and Selection Criteria**

17

18 The evaluation process relied primarily on four criteria to determine which special-status  
19 species would be included on the list of species proposed for coverage under the BDCP.  
20 The selection criteria, which are discussed in detail in Appendix X, are as follows  
21 :

- 22 1. Listing status of the species.
- 23 2. Likelihood that the species is present in the BDCP Plan Area or other  
24 areas within the geographic scope.
- 25 3. Potential for the species to be adversely affected by BDCP covered  
26 activities, including the implementation of conservation measures.
- 27 4. Level of information available to determine potential impacts to species  
28 and to identify effective conservation measures.

29

30 Those species that met all four of these criteria are proposed for coverage under the  
31 BDCP (Table 1.2). The results of the evaluations conducted for each species are set out  
32 in Appendix X.

### 33

### 34 **1.4.4 Covered Activities**

35

36 A primary purpose of the BDCP is to provide the basis for the issuance of regulatory  
37 authorizations that allow for the take of covered species caused by activities covered by  
38 the Plan. These activities, which are referred to as “covered activities”, are otherwise  
39 lawful actions and projects that incidentally may result in the take of covered species.  
40 The covered activities set out in the BDCP involve both actions that are ongoing and  
41 those that will be implemented in the future. This section briefly summarizes those  
42 activities that are covered by the BDCP, including those that will also be addressed in the  
43 associated biological assessment(s), and the entities responsible for these actions. A  
44 detailed description of BDCP covered activities is provided in Chapter 4, *Covered*  
45 *Activities*. The BDCP covered activities have been divided into three categories based on  
46 the entity engaged in the activity:

- 1
- 2 • Activities conducted by DWR and certain SWP Contractors
- 3 • Activities conducted by Reclamation and certain CVP Contractors
- 4 • Activities conducted by Mirant Corporation
- 5

## 6 **Activities of the Department of Water Resources and Certain State Water Project** 7 **Contractors**

8  
9 The activities of DWR and the SWP contractors covered by the BDCP largely involve  
10 actions related to the delivery of water supplies from the Delta facilities of the SWP.  
11 These activities fall into three categories: 1) operation of existing and new Delta  
12 facilities needed for water transport and delivery; 2) construction of new facilities; and  
13 3) maintenance, monitoring and other associated ongoing activities.

14  
15 In addition, DWR and the State and Federal Water Contractors Agency will be a part of  
16 the BDCP Management Entity. The BDCP Management Entity will oversee the  
17 implementation of conservation measures, monitoring, and adaptive management  
18 described in Chapter 3 *Conservation Strategy*. The actions implemented by the  
19 Management Entity will be covered under the Plan and its associated authorizations.

## 20 21 **Activities of the U.S. Bureau of Reclamation and Certain CVP Contractors**

22  
23 Certain activities undertaken by Reclamation are also “covered activities” under the  
24 BDCP. Take authorizations for these federal activities, however, will be issued through  
25 section 7 biological opinions that are based on the biological assessment(s) companion to  
26 the BDCP.

27  
28 The covered activities of Reclamation and CVP Contractors generally involve actions  
29 associated with the delivery of water supplies from the Delta facilities of the CVP. These  
30 activities include: 1) operation of existing CVP Delta facilities to convey and deliver  
31 water for project purposes; 2) associated maintenance and monitoring activities; and 3)  
32 in-Delta conveyance improvements. By law, the CVP is operated in coordination with  
33 the SWP. Other CVP and SWP-related actions occur upstream and outside of the Delta,  
34 including activities associated with reservoir operations and water deliveries, and may be  
35 affected by actions implemented under the BDCP. These other actions are not proposed  
36 as covered activities under the BDCP; however, they will be considered in section 7  
37 consultations involving the BDCP and the associated biological assessments.

38  
39 *[Note to Reviewers: Additional text will be added related to covered actions related to*  
40 *Reclamation’s implementation of the CVPIA]*

## 41 42 **Activities of Mirant Corporation**

43  
44 Covered activities associated with Mirant Corporation involve the generation of power at  
45 power plants located in the City of Pittsburg and the unincorporated area of Contra Costa  
46 County (together the “Delta Plants”) (Figure 1.1). Mirant Corporation’s activities fall

1 into two categories: (1) activities related to existing power generation, including water  
2 intake and discharge flows associated with those activities; and (2) recurrent maintenance  
3 activities required to ensure continued operation of the existing facilities.

#### 4 5 **1.4.5 Permit Duration** 6

7 DWR is seeking permits from USFWS, NMFS, and CDFG to implement the BDCP and  
8 retain incidental take coverage under those permits for a term of 50 years. A 50-year  
9 term will allow for the full implementation of the BDCP conservation strategy and for the  
10 benefits of those measures to fully accrue.

### 11 12 **1.5 Overview of the BDCP Development Process** 13

#### 14 **1.5.1 BDCP Organization and Structure** 15

16 The BDCP reflects input from a range of interested parties, public agencies, stakeholder  
17 groups, independent scientists, and the general public. The development of the Plan was  
18 primarily guided by the BDCP Steering Committee, whose membership is set out in  
19 Table 1.1. The Steering Committee provided direction on a range of technical,  
20 regulatory, and policy matters that shaped the Plan. The state and federal fish and  
21 wildlife agencies participated on the Steering Committee in an *ex officio* capacity. The  
22 proceedings of the Steering Committee, including the schedule and notice of meetings,  
23 topics for inclusion in meeting agendas, and the course of deliberations, were facilitated  
24 by the California Natural Resources Agency.

25 The Steering Committee formed a number of standing “Working Groups” and “Technical  
26 Teams,” as well as ad hoc groups, to focus on approaches and solutions to specific issues  
27 related to Plan development. The focus of these groups is described below. The  
28 Working Groups dealt primarily with broad topics related to such matters as biological  
29 goals and objectives, conservation strategies, water conveyance, other stressors, and  
30 governance, and developed recommendations which were presented to the Steering  
31 Committee for consideration. Each Working Group was co-chaired by members of the  
32 Steering Committee. Technical Teams were tasked with responsibility for developing  
33 proposed approaches to technical and scientific issues. These teams were co-chaired by  
34 subject-matter experts who represented Steering Committee members, and were staffed  
35 by technical experts from both inside and outside the Steering Committee. All of these  
36 subgroups of the Steering Committee were composed of or were informed by technical  
37 experts representing a broad range of disciplines relevant to various aspects of plan  
38 development. Meetings of the Working Groups and Technical Teams were noticed on the  
39 BDCP website and open to the public.

40  
41 The Working Groups included the following:

- 42 • Conservation Strategy Working Group
- 43 • Biological Goals and Objectives Working Group
- 44 • Conveyance Working Group
- 45 • Other Stressors Working Group

- 1 • Implementation Structure/Governance Working Group
- 2 • Public Outreach Working Group
- 3 • Membership Working Group

4  
5 The Technical Teams included the following:

- 6 • Analytical Tools Technical Team
- 7 • Fish Facilities Technical Team
- 8 • Habitat and Operations Technical Team
- 9 • Habitat Restoration Program Technical Team
- 10 • Terrestrial Resources Subgroup
- 11 • Integration Team
- 12 • Metrics Group

### 13 14 **1.5.2 Coordination with Agencies, Stakeholders, and** 15 **Public Outreach**

16  
17 The NCCPA requires the establishment of a process for public participation and outreach  
18 throughout the development of a plan.<sup>38</sup> Similarly, policies governing the ESA  
19 emphasize the importance of public involvement in the development of large-scale HCPs  
20 and encourage plan participants to facilitate the engagement of the public.<sup>39</sup> Beginning at  
21 the initial stage of the BDCP planning process, the public has been afforded a wide range  
22 of opportunities to learn about the various elements of the Plan and provide input during  
23 the course of its development. In addition, the public outreach effort for the BDCP has  
24 been extensive, ongoing, and far-ranging.

#### 25 26 **Public Participation and Engagement**

27  
28 The BDCP Steering Committee was established in April 2006, and met on a regular and  
29 ongoing basis throughout the planning process. All meetings of the Steering Committee,  
30 as well as Working Groups and Technical Teams, were open to the public. Such  
31 meetings could also be attended by teleconference, with live or archived access to  
32 presentations provided through the internet. An electronic listserv was maintained to  
33 ensure that interested members of the public were adequately notified of upcoming  
34 meetings and that draft documents pertaining to the planning process were distributed as  
35 they became available. All documents discussed by the Steering Committee, including  
36 its Working Groups and Technical Teams, were also made available to the public on the  
37 BDCP website. At BDCP meetings, both oral and written public comments were  
38 received by the Steering Committee, and those comments received in writing were posted  
39 to the website. The notes of Steering Committee meetings also reflected comments and  
40 input offered by the public.

41  
42 Throughout the planning process, representatives of the BDCP conducted well over X  
43 briefings for community organizations, local jurisdictions within and adjacent to the

---

<sup>38</sup>Fish & Game Code § 2815. .

<sup>39</sup> 65 FR at X.

1 BDCP Plan Area, environmental organizations, urban and agricultural water users  
2 groups, and recreational and commercial fishing organizations. Public presentations were  
3 made throughout the State, and information about the BDCP was regularly distributed,  
4 including updated “fact sheets” explaining the purpose of the Plan and describing its  
5 various components. To further facilitate the dissemination of information, the BDCP  
6 maintained a project website at [www.baydeltaconservationplan.com](http://www.baydeltaconservationplan.com). Additional public  
7 outreach and involvement activities were conducted around major milestones in the  
8 planning process, and in compliance with NEPA and CEQA environmental review  
9 processes.

10  
11 In 2008, DWR, Reclamation, NMFS, and USFWS, the lead agencies in the CEQA and  
12 NEPA environmental review processes, hosted ten scoping meetings throughout  
13 California. These meetings occurred at locations within the Sacramento Valley, the  
14 primary watershed through which stored water supplies are conveyed to and through the  
15 Delta to Project pumping facilities; other Delta communities; the San Francisco Bay  
16 Area; the San Joaquin Valley; and Southern California. Within the same year, DWR held  
17 eight landowner workshops in various Delta communities that focused on the status of  
18 the BDCP planning process, the environmental review process associated with the plan,  
19 and the potential impacts to landowners in the Delta that may occur through the  
20 implementation of the plan. In addition, the California Natural Resources Agency  
21 convened town hall meetings in Sacramento, Stockton, and Walnut Grove to further  
22 inform Delta communities about the BDCP and to respond to questions about the broader  
23 array of public agency efforts underway in the Delta, including the BDCP, pertaining to  
24 land use, flood protection, ecosystem restoration and governance.

25  
26 In the spring of 2009, the BDCP produced and distributed a summary update about the  
27 development of the Plan to interested members of the public, including details of  
28 individual conservation measures that were being considered as part of the BDCP  
29 conservation strategy. NEPA and CEQA lead agencies also conducted 12 additional  
30 scoping meetings throughout California, seeking public input about the scope of BDCP  
31 actions and potential alternatives to the proposed action. Six of these scoping meetings  
32 were held in communities in or in close proximity to the BDCP Plan Area including  
33 Brentwood, Clarksburg, Davis, Fairfield, Sacramento, and Stockton.

34  
35 During the fall of 2009, after the release of a draft of a partial conservation strategy, four  
36 technical workshops were held in the Delta communities of Brentwood, Stockton, Walnut  
37 Grove, and West Sacramento to solicit input about the planning assumptions, biological  
38 rationale, and feasibility of draft conservation measures, as well as to seek  
39 recommendations for additional or different conservation measures. Input from the  
40 workshops was compiled and conveyed to the BDCP Steering Committee for its  
41 consideration and posted on the BDCP website. Three fact sheets were distributed that  
42 described the status of the Plan’s development, the draft conservation strategy generally,  
43 and proposed water conveyance and flow and habitat restoration conservation measures  
44 more specifically.

45  
46 *[Note to reviewers: public outreach for the BDCP is ongoing and additional activities*

1 *seeking public involvement in the plan will be conducted around future planning*  
2 *milestones.]*  
3

### 4 **1.5.3 Integration of Science**

5  
6 The BDCP is built upon and reflects the extensive body of scientific investigation, study,  
7 and analysis of the Delta compiled over several decades,<sup>40</sup> including the results and  
8 findings of numerous studies initiated under the CALFED Bay-Delta Science program  
9 and Ecosystem Restoration Program, the long-term monitoring programs conducted by  
10 the Interagency Ecological Program (IEP), research and monitoring conducted by state  
11 and federal resource agencies, and research contributions of academic investigators.  
12 In addition, the BDCP Steering Committee considered a number of other recent reports  
13 on the Delta, including reports of the Governor’s Delta Vision Blue Ribbon Task Force  
14 (January and October 2008) and several recent reports of the Public Policy Institute of  
15 California.<sup>41</sup> Many elements of the BDCP conservation strategy parallel the  
16 recommendations of these other reports.  
17

#### 18 **Independent Science Advisory Process**

19  
20 To ensure that the BDCP would be based on the best scientific and commercial data  
21 available, the Steering Committee also sought input and advice from independent  
22 scientists on the key elements of the Plan. Early in the planning process, the Steering  
23 Committee established a group of “Science Liaisons” to recommend approaches to  
24 ensure an appropriate level of independent scientific input into the development of the  
25 BDCP and to coordinate with facilitators tasked with responsibility for arranging and  
26 overseeing the independent science process. Consistent with the requirements of the  
27 NCCPA and the policy directives of the Five-Point Policy,<sup>42</sup> the BDCP Steering  
28 Committee directed the facilitators to convene independent scientists at several key  
29 stages of the BDCP planning process, enlisting well-recognized experts in ecological and  
30 biological sciences to produce recommendations on a range of relevant topics, including  
31 approaches to conservation planning for aquatic and terrestrial species in the Delta and  
32 developing adaptive management and monitoring programs.<sup>43</sup> Among other things, the  
33 independent scientists provided recommendations and guidance on such matters as:  
34

- 35 • scientifically sound conservation strategies for species and natural communities  
36 proposed to be covered by the Plan;
- 37 • a set of reserve design principles that addresses the needs of species, landscapes,  
38 ecosystems, and ecological processes in the BDCP Planning Area proposed to be  
39 addressed by the Plan;

---

<sup>40</sup> See *The State of Bay-Delta Science* (2008).

<sup>41</sup> For example, *Comparing Futures for the Sacramento-San Joaquin Delta* (Public Policy Institute of California 2008).

<sup>42</sup> 65 Fed. Reg. 35242.

- 1       • management principles and conservation goals that could be used in developing a  
2       framework for the monitoring and adaptive management component of the Plan;  
3       and  
4       • identification of data gaps and uncertainties so that risk factors may be adequately  
5       evaluated.  
6

7       Reports prepared by independent science advisors to the BDCP are provided in Appendix  
8       XX [*ISA report to BDCP, ISA report on terrestrial species, and ISA report on adaptive*  
9       *management*].  
10

11       The Steering Committee assembled three different groups of independent science  
12       advisors during the development of the BDCP. The first group gathered in September  
13       2007, to provide guidance on approaches to planning for the conservation of aquatic  
14       species and ecosystem processes in the Delta. Specifically, the group advised the  
15       Steering Committee on the following elements of the BDCP:

- 16       ▪ the application of conservation planning principles within the BDCP Planning  
17       Area;  
18       ▪ geographic and temporal scope of the BDCP;  
19       ▪ addressing facets of Delta ecosystem dynamics;  
20       ▪ analytical methods used in BDCP formulation, methods of analysis; and  
21       ▪ adaptive management and monitoring considerations.

22       A second group of science advisors was convened in September 2008 to consider  
23       approaches to planning for the conservation of non-aquatic resources in the BDCP  
24       Planning Area. The group provided recommendations to the Steering Committee on such  
25       issues as:

- 26       ▪ non-aquatic species to be considered for regulatory coverage under the BDCP;  
27       ▪ terrestrial natural communities that should be addressed under the BDCP;  
28       ▪ landscape-level approaches to conservation planning for non-aquatic resources;  
29       ▪ additional sources of information that should be developed to support the non-  
30       aquatic resource elements of the BDCP; and  
31       ▪ conservation strategies that may be considered for addressing terrestrial and non-  
32       tidal wetland communities and dependent wildlife and plant species.

33       The third group of science advisors met in December 2008, and focused on matters  
34       related to the development of an adaptive management decision making process for the  
35       BDCP informed by data and information generated by monitoring and research efforts.  
36       This group built upon guidance on adaptive management that followed from the first of  
37       the independent science workshops, offering more specific advice based on progress that  
38       had since been made in the development of the BDCP.  
39

## 1 **DRERIP Evaluation Process**

2  
3 The BDCP Steering Committee undertook a rigorous process to incorporate new and  
4 updated information and to evaluate a wide variety of issues and approaches as it  
5 formulated a cohesive, comprehensive BDCP conservation strategy. This effort included  
6 an evaluation conducted early in 2009 by multiple teams of experts of draft BDCP  
7 conservation measures, using the CALFED Bay-Delta Ecosystem Restoration Program's  
8 (ERP) Delta Region Ecosystem Restoration Implementation Plan (DRERIP) Scientific  
9 Evaluation Process.

10  
11 In October 2008, the Steering Committee developed early drafts of BDCP conservation  
12 measures related to water operations, habitat restoration, and other stressors. The  
13 DRERIP evaluation process was used to evaluate these draft conservation measures. The  
14 DRERIP process was specifically developed to aid in planning and decision making  
15 regarding potential ecosystem restoration projects in the Delta. The process entails  
16 engaging teams of experts to work through a structured, step-by-step examination of the  
17 scientific efficacy of proposed restoration actions by analyzing both potential positive  
18 and negative outcomes which might result from a given action.

19  
20 To conduct the DRERIP evaluations, the Steering Committee engaged 52 technical  
21 experts assembled into five teams to address related groupings of conservation measures.  
22 The DRERIP Technical Team meetings were limited to specific technical experts trained  
23 in the DRERIP evaluation process. The teams conducted DRERIP evaluations, from  
24 January-April 2009, on 32 draft conservation measures that could be evaluated using the  
25 process. The evaluations were conducted using a series of peer-reviewed DRERIP  
26 ecosystem and species conceptual models<sup>44</sup> developed specifically for the Delta and  
27 additional relevant sources of information (e.g., published literature, recently collected  
28 data). The conceptual models describe the current scientific understanding regarding  
29 how the Delta ecosystem works and were designed to serve as a foundation for the  
30 evaluation process. A description of the BDCP DRERIP evaluations and evaluation  
31 results are presented in Appendix X, *BDCP DRERIP Evaluation Results of Draft*  
32 *Conservation Measures*.

33  
34 Results include an assessment of the likely magnitude of the ecological outcomes and the  
35 certainty of those outcomes that could be associated with implementation of each  
36 evaluated conservation measure. However, because the DRERIP process is designed to  
37 evaluate restoration actions independently, it does not provide for a direct assessment of  
38 the combined magnitude and certainty of positive and negative ecological outcomes that  
39 would be associated with the contemporaneous implementation of multiple conservation  
40 measures under BDCP. To address this need, the Steering Committee established a  
41 Synthesis Team comprised of Steering Committee member representatives and technical  
42 experts that participated in the DRERIP evaluations to conduct an assessment of the  
43 likely synergistic ecological effects of simultaneous implementation of multiple  
44 conservation measures based on the evaluation results for individual conservation  
45 measures. The Synthesis Team conducted the evaluation during March-April 2009 and

---

<sup>44</sup> [Footnote to be added specifying additional detail regarding peer review of models ]

1 provided recommendations to the Steering Committee for refining conservation  
2 measures, sequencing implementation of conservation measures, and adjusting DRERIP  
3 results for individual conservation measures based on their synergistic effects with  
4 implementation of other conservation measures.

5  
6 DRERIP evaluation results were also used to inform development of the effectiveness  
7 monitoring for conservation measures (see Section 3.5, *Monitoring and Research Plan*).  
8 DRERIP evaluation results include assessments and sources of uncertainty surrounding  
9 the magnitude of ecological outcomes that could be expected with the implementation of  
10 each conservation measure. Based on these assessments, effectiveness monitoring was  
11 developed to collect the information necessary to address these sources of uncertainty and  
12 to inform the need for future adjustments to conservation measures to improve their  
13 performance over time through the BDCP adaptive management decision making process  
14 (see Section 3.6, *Adaptive Management*).  
15

## 16 **1.6 Organization of the BDCP**

17  
18 The BDCP consists of an Executive Summary, twelve chapters, and eight appendices.  
19 Specifically, the plan includes the following components:  
20

21 The BDCP includes an executive summary, which provides an overview of the BDCP,  
22 including descriptions of the background, purpose, covered activities, conservation  
23 strategy, and approach to plan implementation. Chapter one sets the context for the  
24 development of the BDCP, including the purpose and scope of the plan, the planning and  
25 conservation goals and objectives, and the expected regulatory outcomes. Chapter one  
26 also describes the process that guided the development of the Plan. Chapter two  
27 describes existing environmental conditions within the Plan Area, providing the context  
28 in which the BDCP and its various elements have been developed. Chapter three sets out  
29 the BDCP conservation strategy, including the biological goals and objectives of the  
30 Plan, approach to conservation adopted by the Plan, the range of conservation measures  
31 for aquatic and terrestrial species and habitats, and the monitoring and adaptive  
32 management plans.  
33

34 Chapter four identifies the activities proposed for regulatory coverage, including existing  
35 and future actions. Chapter five includes an analysis of the beneficial and adverse effects  
36 of the BDCP on covered natural communities and covered species. The chapter also  
37 describes the cumulative and indirect effects resulting from the implementation of the  
38 BDCP conservation strategy and the covered activities. Chapter six addresses matters  
39 relating to the implementation of the BDCP, including the schedule for the  
40 implementation of actions, the monitoring and reporting process to ensure compliance,  
41 regulatory assurances anticipated by the entities seeking authorizations, measures to  
42 address changed circumstances, and the approach to unforeseen circumstances. Chapter  
43 seven sets out a governance structure to ensure successful long-term implementation of  
44 the Plan. Chapter eight estimates the costs of Plan implementation and the sources of  
45 funding that will be relied on by the Plan participants.  
46

1 Chapter nine sets out the alternatives to take that were developed and considered and the  
2 reasons why they were not adopted. Chapter ten describes the independent science  
3 advisory process and the recommendations provided by these scientists. Chapter eleven  
4 lists the preparers of the BDCP and chapter twelve lists the sources cited in the Plan.  
5

DRAFT