

Bay Delta Conservation Plan/California WaterFix Partially Recirculated Draft EIR/ Supplemental Draft EIS Executive Summary

ES.1 Introduction

ES.1.1 Background and Context

The Sacramento-San Joaquin Delta (the Delta) is a vitally important ecosystem that supports hundreds of aquatic and terrestrial species, many of which are threatened or endangered. Located at the crux of two major watersheds that capture runoff from approximately 40 percent of the land in California, the Delta is also at the core of the state's most important water system, which serves millions of Californians throughout the San Francisco Bay Area, the Central Valley, the Central Coast, and southern California. This water supports agricultural, municipal, and industrial land uses that, taken together, are the source of much of California's financial stability and prosperity. The benefitting areas include farms and ranches from the north Delta to the Mexican border, as well as Silicon Valley, portions of the East Bay, and most of urban southern California.

Unfortunately, the Delta is in a state of crisis. Several threatened and endangered fish species, including Delta smelt and winter-run Chinook salmon, have recently experienced the lowest population numbers in their recorded history. Meanwhile, Delta levees and the infrastructure they protect are at risk from earthquake damage, continuing land subsidence, and rising sea level. A major seismic event causing levee failure could cause an interruption of water exports for as long as several months or even years. And the amounts of water available for human use south of the Delta have already decreased significantly in recent years, independent of the drought, due to regulatory actions by the United States Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the California Department of Fish and Wildlife (CDFW). Applying federal and state endangered species laws, these entities have required the Department of Water Resources (DWR) and the United States Bureau of Reclamation (Reclamation) to substantially alter the manner in which they jointly operate the State Water Project (SWP) and the federal Central Valley Project (CVP).

For both environmental and economic reasons, there is an urgent need to improve and modernize the existing SWP/CVP conveyance system, which was designed and built long before the "environmental era." Many of the current systemic problems stem from the fact that both the SWP and the CVP export water from intake facilities, including pumps, that are located at the far southern edge of the Delta, near the City of Tracy. Because of their far southerly location and their elevation above sea level, these pumps create "reverse flows" that pull river water southward (upstream, in effect) towards the intakes, rather than allowing it to flow downstream towards San Pablo Bay, San Francisco Bay, and, ultimately, the Pacific Ocean. Not surprisingly, these reverse flows cause, or contribute to, direct and indirect impacts on fish species such as Delta smelt, which are pulled towards the pumps, where adverse conditions, including the presence of predator species, await them. The reverse flows also adversely affect salmon migration patterns. To try to reduce these adverse effects on fisheries, regulators have substantially reduced water exports to SWP and CVP service areas, to the economic detriment of those areas. The recent historic drought has only made matters worse.

1 The ecological problems with the current system could be greatly reduced by the construction and
2 use of new north Delta intake structures with state-of-the-art fish screens. With this future vision in
3 mind, DWR and several state and federal water contractors, in coordination with Reclamation, have
4 proposed a strategy for restoring ecological functions in the Delta while improving water supply
5 reliability in California. These agencies' initial approach, going back as far as 2006, focused on the
6 development of an extensive conservation plan known as the Bay Delta Conservation Plan, or BDCP,
7 which would add new intakes in the north Delta while at the same time pursuing a very large-scale
8 long-term habitat restoration program within the greater Delta. Under this potential approach, DWR
9 would achieve compliance with the federal Endangered Species Act (ESA) through a habitat
10 conservation plan (HCP) approved by both USFWS and NMFS under Section 10 of the ESA, and
11 would achieve compliance with state endangered species laws through approval by CDFW of a
12 natural community conservation plan (NCCP) prepared under the California Natural Community
13 Conservation Plan Act (NCCPA). Both the HCP and NCCP would provide incidental take
14 authorization for a period of 50 years. Reclamation would achieve compliance with ESA through
15 Section 7 of that Act.

16 In December 2013, after several years of preparation, DWR, Reclamation, USFWS, and NMFS, acting
17 as joint Lead Agencies, published a Draft Environmental Impact Report/Environmental Impact
18 Statement (Draft EIR/EIS) on the proposed BDCP. This document contained a total of 15 action
19 alternatives, including Alternative 4, which was identified as DWR's preferred alternative. The 14
20 other action alternatives varied from Alternative 4 with respect to factors such as the number of
21 proposed North Delta intakes, the types of conveyance facilities (e.g., surface canals versus
22 underground pipelines), operational rules, and amounts of proposed habitat restoration. Alternative
23 4 included three new intakes located in the North Delta and two parallel underground pipelines
24 conveying diverted water to the existing export facilities in the South Delta. The proposed
25 operations for Alternative 4 reflected many years of negotiations between DWR, Reclamation, the
26 water contractors, USFWS, NMFS, and CDFW.

27 By July 2014, at the end of the public review period, the Lead Agencies had received numerous
28 comments on the proposed BDCP from other agencies and members of the public. Many of these
29 comments included concrete suggestions regarding how, from the commenters' perspectives, the
30 project (i.e., Alternative 4, the BDCP) could be improved. For example, some people urged the Lead
31 Agencies to reduce the level and scope of the construction activities, as well as the sheer size of the
32 proposed facilities, as means of reducing air quality and noise impacts. Other commenters noted
33 that Alternative 4 as then envisioned included substantial amounts of construction activity within
34 Staten Island, which is prime habitat for the greater sandhill crane. Many commenters argued that,
35 because the proposed project would lead to significant, unavoidable water quality effects, DWR
36 could not obtain various approvals needed for the project to succeed (e.g., approval by the State
37 Water Resources Control Board of new points of diversion for north Delta intakes). Yet others
38 suggested that DWR should pursue a permit term shorter than 50 years due to the levels of
39 uncertainty regarding both the future effects of climate change and the long-term effectiveness of
40 habitat restoration in recovering fish populations. Still other comments suggested that the proposed
41 conveyance facilities should be separated from the habitat restoration components of the BDCP,
42 with the latter to be pursued separately.

43 Consistent with this public input, the Lead Agencies have substantially modified Alternative 4 to
44 reduce its environmental impacts and have formulated new sub-alternatives that would seek
45 incidental take authorization for a period of far less than 50 years, and would include only limited
46 amounts of habitat restoration. The nature of the modifications to Alternative 4 are described at

1 length in Section 3.1 of this Partially Recirculated Draft EIR/Supplement to Draft EIS
2 (RDEIR/SDEIS); and the Draft EIR/EIS text changes needed to reflect the modifications are shown in
3 “track changes” in Appendix A of this RDEIR/SDEIS. Among the key changes are (i) the elimination
4 of three pumping plants associated with new intake facilities; (ii) associated reductions in
5 construction-related air pollutant emissions at intake sites; (iii) substantial reductions in the
6 amount of construction occurring on Staten Island; (iv) reductions in water quality effects; and (v)
7 the relocation of key project features from private property to public property already owned by
8 DWR.

9 The three new sub-alternatives (4A, 2D, and 5A) developed by the Lead Agencies embody a different
10 implementation strategy that would not involve a 50-year HCP/NCCP approved under ESA Section
11 10 and the NCCPA, but rather would achieve incidental take authorization under ESA Section 7 and
12 California Endangered Species Act (CESA) Section 2081(b) assuming a shorter project
13 implementation period. These new sub-alternatives address the reverse flow problem by focusing
14 on the construction and operation of new north Delta intakes and on habitat restoration
15 commensurate with the footprint of these new facilities. This alternative implementation strategy
16 would allow for other state and federal programs to address more extensive long-term habitat
17 restoration efforts for species recovery in programs separate from the proposed project.

18 The construction and operation of new conveyance facilities, as now proposed under Alternatives
19 4A, 2D, and 5A, would help resolve many of the concerns with the current south Delta conveyance
20 system while otherwise helping to reduce threats to endangered and threatened species in the Delta
21 through limited but substantial amounts of habitat restoration, as necessary to mitigate significant
22 environmental effects and satisfy applicable ESA and CESA standards. Implementing a dual
23 conveyance system, in which water could be diverted from either the north or the south or both,
24 depending on the needs of aquatic organisms, would align water operations to better reflect natural
25 seasonal flow patterns by creating new water diversions in the north Delta equipped with state-of-
26 the-art fish screens. The new system would reduce the ongoing physical impacts associated with
27 sole reliance on the southern diversion facilities and allow for greater operational flexibility to
28 better protect fish. Minimizing south Delta pumping would provide more natural east-west flow
29 patterns. The new diversions would also help protect critical water supplies against the threats of
30 sea level rise and earthquakes.

31 Although Alternatives 4A, 2D, and 5A include only those habitat restoration measures needed to
32 provide mitigation for specific regulatory compliance purposes, habitat restoration is still
33 recognized as a critical component of the state’s long-term plans for the Delta. Such larger
34 endeavors, however, will likely be implemented over time under actions separate and apart from
35 these alternatives. The primary parallel habitat restoration program is called California EcoRestore
36 (EcoRestore), which will be overseen by the California Resources Agency and implemented under
37 the California Water Action Plan. Under EcoRestore, the state will pursue restoration of more than
38 30,000 acres of fish and wildlife habitat by 2020. These habitat restoration actions will be
39 implemented faster and more reliably by separating them from the water conveyance facility
40 implementation.

41 Alternative 4A is also known as “The California WaterFix.” It is now DWR’s preferred alternative
42 under the California Environmental Quality Act (CEQA) and Reclamation’s preferred alternative
43 under the National Environmental Policy Act (NEPA).

1 ES.1.2 Overview of Key Revisions

2 This RDEIR/SDEIS has been prepared to provide the public and interested agencies an opportunity
3 to review and comment on revisions and additional information added to the Draft EIR/EIS that was
4 circulated for public review on Dec 13, 2013. Key revisions are listed below.

- 5 • Modified project objectives and purpose and need that encompass new alternatives as well as
6 the original alternatives included in the Draft EIR/EIS.
- 7 • Engineering refinements made to the Alternative 4 water conveyance facilities, including
8 changes to North Delta Diversion intake facility design; conveyance facility modifications to
9 reduce environmental and property impacts; relocation of pumping plants to a new facility
10 adjacent to Clifton Court Forebay; revisions to proposed conveyance facility operations; and
11 changes to the proposed conservation strategy. These refinements would, among other things,
12 reduce the effects of Alternative 4 on greater sandhill cranes and reduce the extent of
13 construction activities that generate air pollution at intake sites.
- 14 • New sub-alternatives, Alternatives 4A, 2D, and 5A, are included to ensure a reasonable range of
15 alternatives are considered that adopt the alternative implementation strategy to achieve
16 federal and state endangered species act compliance using a shorter project implementation
17 period through the “Section 7” process under the federal ESA, and the “Section 2081(b)” process
18 under CESA.
- 19 • Updated environmental analysis that addresses certain issues raised in the more than 12,000
20 comments received on the Draft EIR/EIS. One example of such updated analysis is an updated
21 discussion of Water Quality effects, which have been reduced compared with how they were
22 described in the Draft EIR/EIS.

23 ES.1.2.1 Legal Basis for Recirculation

24 In accordance with Public Resources Code (PRC) Section 21092.1 and State CEQA Guidelines Section
25 15088.5, a CEQA lead agency must “recirculate” a revised Draft EIR or chapters or portions of the
26 revised Draft EIR for additional comments if, after the start of public review but prior to final EIR
27 certification, the lead agency adds “significant new information” to an EIR. Under NEPA, a
28 supplement to the draft EIS may be prepared “when the agency determines that the purposes of
29 NEPA would be furthered by doing so” (40 CFR 1502.9[c][2]) or if 1) the agency makes substantial
30 changes in the proposed action that are relevant to environmental concerns, or 2) there are
31 significant new circumstances or information relevant to environmental concerns and bearing on
32 the proposed action or its impacts (40 CFR 1502.9[c][1]).

33 ES.1.2.2 Modified Project Objectives and Purpose and Need

34 One of the primary challenges facing California is how to comprehensively address the increasingly
35 significant conflict between the ecological needs of a range of at-risk Delta species and natural
36 communities that have been, and continue to be, affected by human activities, while providing more
37 reliable water supplies for people, communities, agriculture, and industry. This challenge must be
38 addressed in decisions by DWR, the CDFW, and the State Water Resources Control Board as they
39 endeavor to strike a reasonable balance between these competing public policy objectives and
40 various actions taken within the Delta, including this proposed project. State policy regarding the
41 Delta is summarized in the Sacramento–San Joaquin Delta Reform Act of 2009, which states:

1 *“it is the intent of the Legislature to provide for the sustainable management of the Sacramento-*
 2 *San Joaquin Delta ecosystem, to provide for a more reliable water supply for the state, to protect*
 3 *and enhance the quality of water supply from the Delta, and to establish a governance structure*
 4 *that will direct efforts across state agencies to develop a legally enforceable Delta Plan.”*
 5 *(California Water Code, Section 85001, subd. [c]).*

6 *The Delta “serves Californians concurrently as both the hub of the California water system and the*
 7 *most valuable estuary and wetland ecosystem on the west coast of North and South America.”*
 8 *(California Water Code, Section 85002).*

9 The ecological health of the Delta continues to be at risk, the conflicts between species protection
 10 and Delta water exports have become more pronounced, as amply evidenced by the continuing
 11 court decisions regarding the intersection of ESA, CESA, and the operations criteria of the SWP and
 12 the CVP. Other factors, such as the continuing subsidence of lands within the Delta, increasing
 13 seismic risks and levee failures, and sea level rise associated with climate change, serve to further
 14 exacerbate these conflicts. Simply put, the overall system as it is currently designed and operated
 15 does not appear to be sustainable from an environmental perspective, and so the proposal to
 16 implement a fundamental, systemic change to the current system is necessary. This change is
 17 necessary if California is to “[a]chieve the two coequal goals of providing a more reliable water
 18 supply for California and protecting, restoring, and enhancing the Delta ecosystem.” (California
 19 Public Resources Code Section 29702, subd. [a]).

20 A statement of Project Objectives by the Lead Agencies is required by the State CEQA Guidelines, and
 21 a Purpose and Need Statement is required by the CEQ NEPA Regulations.

22 **ES.1.2.2.1 Project Objectives**

23 DWR’s fundamental purpose in proposing the proposed project is to make physical and operational
 24 improvements to the SWP/CVP system in the Delta necessary to restore and protect ecosystem
 25 health, water supplies of the SWP and CVP south of the Delta, and water quality within a stable
 26 regulatory framework, consistent with statutory and contractual obligations. The fundamental
 27 purpose is informed by past efforts taken within the Delta and the watersheds of the Sacramento
 28 and San Joaquin Rivers. The fundamental purpose, in turn, gives rise to the following project
 29 objectives.

- 30 ● Address adverse effects to state and federally listed species related to:
 - 31 ○ The operation of existing SWP Delta facilities and construction and operation of facilities for
 - 32 ○ the movement of water entering the Delta from the Sacramento Valley watershed to the
 - 33 ○ existing SWP and CVP pumping plants located in the southern Delta;
 - 34 ○ The implementation of actions to improve SWP and/or CVP conveyance that have the
 - 35 ○ potential to result in take of species that are listed under the ESA and CESA.
- 36 ● Improve the ecosystem of the Delta by reducing the adverse effects to certain listed species of
- 37 diverting water by siting additional intakes of the SWP and coordinated operations with the
- 38 CVP;
- 39 ● Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when
- 40 hydrologic conditions result in the availability of sufficient water, consistent with the
- 41 requirements of state and federal law and the terms and conditions of water delivery contracts
- 42 and other existing applicable agreements.

1 Additional Project Objectives that guide the development of the proposed project and alternatives
2 can be found in Section 1.1.4.1 of this RDEIR/SDEIS.

3 **ES.1.2.2.2 Purpose and Need**

4 NEPA requires that an EIS include a statement of “purpose and need” to which the federal agency is
5 responding in proposing the alternatives, including the proposed action. This purpose statement
6 and project need described below are consistent with the Project Objectives outlined above in
7 Section ES.1.2.2.1.

8 The purposes of the proposed action are to achieve the following.

- 9 1. Construction and operation of facilities and/or improvements for the movement of water
10 entering the Delta from the Sacramento Valley watershed to the existing SWP and CVP pumping
11 plants located in the southern Delta.
- 12 2. Operation of the existing and potential new SWP facilities and existing CVP Delta facilities.
- 13 3. The activities described in 1) and 2) occurring in a manner that minimizes or avoids adverse
14 effects to listed species, and allows for the protection, restoration and enhancement of aquatic,
15 riparian and associated terrestrial natural communities and ecosystems.
- 16 4. Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when
17 hydrologic conditions result in the availability of sufficient water, consistent with the
18 requirements of state and federal law and the terms and conditions of water delivery contracts
19 held by SWP contractors and certain members of San Luis Delta Mendota Water Authority, and
20 other existing applicable agreements.

21 The above Purpose statement reflects the intent to advance the coequal goals set forth in the
22 Sacramento–San Joaquin Delta Reform Act of 2009 of providing a more reliable water supply for
23 California and protecting, restoring, and enhancing the Delta ecosystem. The above phrase—*restore*
24 *and protect the ability of the SWP and CVP to deliver up to full contract amounts*—is related to the
25 upper limit of legal CVP and SWP contractual water amounts and delineates an upper bound for
26 development of EIR/EIS alternatives, not a target. It is not intended to imply that increased
27 quantities of water will be delivered under the proposed project. As indicated by the “up to full
28 contract amounts” phrase, alternatives need not be capable of delivering full contract amounts on
29 average in order to meet the project purposes. Alternatives that depict design capacities or
30 operational parameters that would result in deliveries of less than full contract amounts are
31 consistent with this purpose.

32 **ES.1.2.2.3 Project Need**

33 The need for the action is derived from the multiple, and sometimes conflicting, challenges currently
34 faced within the Delta. The Delta has long been an important resource for California, providing
35 municipal, industrial, agricultural and recreational uses, fish and wildlife habitat, and water supply
36 for large portions of the state. However, by several key criteria, the Delta is now widely perceived to
37 be in crisis. There is an urgent need to improve the conditions for threatened and endangered fish
38 species within the Delta. Improvements to the conveyance system are needed to respond to
39 increased demands upon and risks to water supply reliability, water quality, and the aquatic
40 ecosystem.

1 To further compound these challenges, fundamental changes to the Delta are certain to occur; the
 2 Delta is not a static ecological system. The anticipated effects of climate change will result in
 3 elevated sea levels, altered hydrological cycles, changed salinity and water temperatures in and
 4 around the Delta, and accelerated shifts in species composition and distribution. These changes add
 5 to the difficulty of resolving the conflicts in the Delta. Anticipating, preparing for, and adapting to
 6 these changes are key underlying drivers for the proposed project.

7 **ES.1.2.3 Refinements to Alternative 4**

8 Among the purposes of this RDEIR/SDEIS, in addition to introducing Alternatives 4A, 2D, and 5A, are
 9 to present revisions to Alternative 4 related to water quality, air quality, and impacts on fish species,
 10 and to provide updated analysis on actions to reduce effects of the 2013 Draft EIR/EIS preferred
 11 CEQA alternative. In December of 2014, the Lead Agencies publicly announced several design
 12 modifications to Alternative 4 to reduce impacts to Delta communities, minimize disturbances or
 13 dislocation to greater sandhill cranes, and improve the long-term reliability and operation of the
 14 conveyance facilities. Modifications to Alternative 4 include re-design of the north Delta diversions
 15 intakes, relocation of pumping plants consolidated at Clifton Court forebay, and removal of
 16 transmission lines and reusable tunnel material in sensitive areas, among other changes to the
 17 conveyance alignment. Please refer to Section ES.2, *Description of Alternatives*, below for a summary
 18 of Alternative 4 modifications and Section 3, *Conveyance Facility Modifications to Alternative 4* of this
 19 RDEIR, for a more detailed description of Alternative 4.

20 Although Alternative 4A is proposed as the new preferred alternative in this RDEIR/SDEIS,
 21 Alternative 4 remains an important option for consideration by the Lead Agencies. Alternative 4A
 22 includes all of the conveyance components of Alternative 4 and was formulated as an outgrowth of
 23 Alternative 4 in response to input from other agencies and members of the public. Alternative 4
 24 remains a potentially viable alternative and is being carried forward in this RDEIR/SDEIS because it
 25 represents the original habitat conservation plan/natural community conservation plan
 26 (HCP/NCCP) alternative approach, and because it provides an important reference point from which
 27 the Alternative 4A, 2D, and 5A descriptions and analyses were developed. The current version of
 28 Alternative 4 includes substantial refinements (as indicated above) and reflects additional scientific
 29 work and analysis completed since release of the 2013 Draft EIR/EIS that are also carried forward
 30 to the new alternatives. For example, all of the new alternatives include the same refinements made
 31 for Alternative 4 related to the north Delta diversion intake facilities design, and all of the
 32 alternatives include the same conveyance facility alignments as presented for Alternative 4.

33 **ES.1.2.4 Introduction of New Sub-Alternatives**

34 On April 30, 2015, the Lead Agencies publicly announced a proposed modified sub-alternative,
 35 Alternative 4A, as the new proposed action, replacing Alternative 4 (the proposed BDCP). During the
 36 2013–2014 public comment period, commenters expressed concerns about the potential impacts of
 37 large-scale habitat restoration on the Delta economy and community character. Other comments
 38 articulated concerns about the expected effectiveness of certain habitat restoration measures, the
 39 nature and uncertainty of climate change, and the related level of scientific uncertainty about future
 40 conditions and the efficacy of a 50-year permit.

41 The primary differences between Alternatives 4A, 2D, and 5A and Alternative 4 include:

- 42 • Alternatives 4A, 2D, and 5A would not serve as habitat conservation plans/natural community
 43 conservation plans under ESA section 10 and the Natural Community Conservation Planning

1 Act, but would achieve incidental take authorization under ESA Section 7 and CESA Section
2 2081(b). DWR would not seek 50-year permits.

- 3 • The originally proposed BDCP habitat restoration and other conservation measures (CM) (i.e.,
4 CM2 through CM21) would not be included in Alternative 4A, 2D, and 5A, except to mitigate
5 significant environmental effects under CEQA/NEPA and to meet the regulatory standards of
6 ESA Section 7 and CESA Section 2081(b).
- 7 • BDCP CM2, which would consist of proposed Yolo bypass improvements and approximately
8 8,000 acres of tidal habitat restoration, is not included in the new sub-alternatives; instead,
9 these components of CM2 are assumed to occur independently of the sub-alternatives in a
10 revised No Action Alternative.

11 Alternatives 2D and 5A are presented in addition to Alternative 4A to provide reviewers and
12 decision-makers with a reasonable range of alternatives by which to compare and evaluate the
13 proposed action. Alternatives 2D and 5A propose the same modified regulatory approach as the
14 proposed Alternative 4A.

15 Although Alternatives 4A, 2D, and 5A comprise only the conveyance facilities and operations that
16 formerly constituted CM1 under BDCP alternatives, and no longer include habitat restoration
17 measures beyond what is needed to provide full mitigation under CEQA and NEPA, habitat
18 restoration is still recognized as a critical component of the state's long-term plans for the Delta.
19 Habitat restoration in the Delta beyond these alternatives' mitigation requirements will occur
20 separately through implementation of California EcoRestore, and these activities will be further
21 developed and evaluated independent of the water conveyance facilities.

22 **ES.1.2.5 Updated Environmental Analysis**

23 Substantive revisions to the Draft EIR/EIS related to the changes noted above, as well as other
24 changes, have been made to RDEIR/SDEIS sections listed below; and these analyses have been
25 applied to all of the impacts analysis for Alternative 4 (in Appendix A) and Alternatives 4A, 2D, and
26 5A in Section 4.

- 27 • Section 2.1, Improved Fish and Aquatic Habitat Analyses
- 28 • Section 2.2, Water Quality Revisions
- 29 • Section 2.3, Air Quality and Health Risk Assessment
- 30 • Section 2.4, Revised Project Description and Enhanced Level of Detail
- 31 • Section 2.5, Analysis of Geotechnical Investigations
- 32 • Section 5, Revisions to Cumulative Impact Analyses

33 The RDEIR/SDEIS describes, evaluates, and discloses the potential temporary and permanent direct
34 and reasonably foreseeable indirect impacts to the human and natural environment associated with
35 the proposed actions (Alternative 4A), the changes to Alternative 4, as well as Alternatives 2D and
36 5A, and the No Action Alternative. The RDEIR/SDEIS also identifies environmental commitments,
37 avoidance and minimization measures, and mitigation measures to reduce or avoid effects. As was
38 the case in the Draft EIR/EIS, Alternative 4 is evaluated at the Late-Long-Term (LLT) timeframe
39 because it would include 50-year incidental take permits. The other alternatives evaluated in the
40 RDEIR/SDEIS, Alternative 4A, 2D, and 5A, are evaluated at the Early Long-Term (ELT) timeframe
41 because the project implementation period is anticipated to be shorter. For NEPA impact

1 assessment purposes, Alternatives 4A, 2D, and 5A are compared to the No Action Alternative for the
 2 Early Long-Term timeframe. Where impacts differ at the Late Long-Term (LLT) period, discussions
 3 of these effects were included in the analysis. For CEQA impact assessment purposes, they are
 4 compared against Existing Conditions, as generally described in the Draft EIR/EIS. More information
 5 about the No Action Alternative ELT is provided in Section 4.2, *Impact of No Action Alternative Early*
 6 *Long-Term*.

7 **ES.1.2.6 Lead Agencies**

8 As a result of changes to the proposed project and the modified regulatory approach for gaining
 9 necessary permits, the U.S. Bureau of Reclamation is now acting as the sole federal Lead Agency
 10 implementing NEPA. The USFWS and NMFS are now acting as NEPA Cooperating Agencies. The
 11 California Department of Water Resources is continuing to act as the state Lead Agency
 12 implementing CEQA.

13 **ES.1.3 Areas of Known Controversy**

14 As noted above, the Lead Agencies have prepared the RDEIR/SDEIS to provide the public and
 15 interested agencies with updated environmental analysis, to introduce new sub-alternatives, and to
 16 address certain issues raised in comments received on the Draft EIR/EIS. Many of these comments
 17 helped identify ways in which the BDCP and Draft EIR/EIS could be improved or alternative
 18 implementation strategies could be proposed to increase benefits and reduce environmental effects.
 19 All of the comments were considered in the decision to circulate the RDEIR/SDEIS.

20 NEPA and CEQA require that the lead agencies identify areas of known controversy and issues to be
 21 resolved that have been raised during the scoping process, public review periods, and throughout
 22 the development of alternatives in the EIR/EIS. Based on input from agency representatives and the
 23 general public during public scoping and the 2013–2014 comment period, the following issue areas
 24 of particular concern have been identified.

- 25 ● **Range of Alternatives.** The range and adequacy of alternatives is an issue of concern to the
 26 public as well as to governmental agencies. In response, the RDEIR/SDEIS proposes three new
 27 sub-alternatives.
- 28 ● **Biological Resources.** The complexity of the BDCP (Alternative 4) raises many concerns over
 29 environmental consequences for the aquatic ecosystem and fish species, and for the terrestrial
 30 ecosystem and plant and wildlife species. Separating the water conveyance plan from the
 31 HCP/NCCP and accelerating environmental restoration through EcoRestore may alleviate some
 32 of these concerns.
- 33 ● **Biological Goals and Objectives.** Controversy exists over the potential conflict between
 34 conservation goals and the reasonable use of natural resources and lands for economic
 35 development. This issue is somewhat reduced under the new sub-alternatives 4A, 2D, and 5A
 36 because of the revised approach to limit habitat improvements to those that would offset
 37 conveyance facility effects.
- 38 ● **Climate Change.** The likely effects of climate changes on water supplies and the Delta
 39 ecosystem during the 50-year life of the BDCP prompted many comments during the formal
 40 public review process. Comments reflected widespread concerns that the anticipated effects of
 41 climate and habitat restoration are too speculative and that there is too much uncertainty about
 42 such effects to allow for a 50-year permit period. These comments are among the reasons the

1 Lead Agencies introduced Alternatives 4A, 2D, and 5A, which do not include a HCP/NCCP and do
2 not seek 50-year incidental take permits.

- 3 ● **Water Supply, Surface Water Resources, and Water Quality.** Water supply and surface water
4 resources—key drivers for development of the proposed project and its alternatives—remain
5 highly controversial issues for a wide array of stakeholders (e.g., agricultural interests, hunting
6 and fishing interests, water agencies, local jurisdictions) because of the changes in water
7 operations, surface water flow conditions, and diversions that could result from changes to the
8 SWP and CVP systems. Water quality is an issue of concern because of uncertainties regarding
9 activities associated with conveyance facilities and restored habitat that could lead to discharge
10 of sediment, possible changes in salinity patterns, and water quality changes that could result
11 from modifications to existing flow regimes. This RDEIR/SDEIS in Section 4 addresses all of
12 these water supply, surface water and water quality issues.
- 13 ● **Agricultural Resources.** Because the Plan Area identified for the BDCP (Alternative 4) is largely
14 devoted to agricultural uses, the effects of the BDCP on existing agricultural activities constitute
15 an issue of known controversy. Although Alternatives 4A, 2D, and 5A would require much less
16 conversion of agricultural land to restored or protected habitat than the alternatives that
17 include a HCP/NCCP, agricultural land will still be affected by implementing any of the
18 alternatives.
- 19 ● **Socioeconomics.** The key socioeconomic concerns involve the impacts of construction
20 activities, the potential losses of business revenues and employment associated with the
21 decrease in agricultural production, and the potential decrease in tax revenues due to such a
22 decline in agricultural activities. Alternative 4 would continue to have these effects while
23 Alternatives 4A, 2D, and 5A would have lesser socioeconomic effects associated with
24 agricultural land conversions compared with other BDCP alternatives.
- 25 ● **Recreation.** Concerns relating to recreation include potential conflicts between construction
26 and operation of facilities associated with the BDCP (Alternative 4) and ongoing Delta
27 recreational activities (e.g., boating, fishing, hunting, enjoyment of marinas). In addition, there
28 are concerns about possible conflicts between operable barriers and gates in Delta waterways
29 and recreational boating corridors.
- 30 ● **Aesthetics/Visual Resources.** Potential effects on aesthetics/visual resources are controversial
31 to Plan Area residents. While aesthetic impacts are difficult to quantify, such impacts would be
32 reduced by proposed changes to the conveyance facilities that would be constructed under
33 Alternatives 4, 4A, 2D, and 5A.
- 34 ● **Growth.** One of the proposed project objectives is to increase water supply reliability to SWP
35 and CVP contractors south of the Delta. Increasing the reliability of water may allow additional
36 growth south of the Delta or in export service areas. Concerns regarding the growth-inducing
37 consequences of the proposed project or its alternatives generally focus on the potential effects
38 of increased water supply to the southern part of the state.
- 39 ● **Community Issues.** Community issues, such as construction noise, air quality, and traffic
40 circulation effects; conversion of existing land uses; and access to private lands have been
41 controversial topics. Plans by DWR to conduct geotechnical drilling surveys were opposed by
42 the local Farm Bureaus because of concerns over confidentiality of the survey results, and the
43 eminent domain process is currently underway to allow acquisition of temporary entry rights
44 on private land for survey work.

1 ES.1.4 Readers Guide to the RDEIR/SDEIS

2 This Executive Summary provides an overview of the substantive changes made to the Draft
3 EIR/EIS, as mentioned above, and a brief summary of the analysis of the impacts of those changes, as
4 well as a guide for reviewing the RDEIR/SDEIS. As an augmentation to the Draft EIR/EIS, the
5 RDEIR/SDEIS is intended to meet the requirements of CEQA and NEPA, to provide sufficient analysis
6 to support decision making, and to inform permit decisions for the issuance of incidental take
7 permits.

8 The RDEIR/SDEIS presents new information and addresses project revisions in several
9 complementary ways. The main body of the document is organized into *Sections* rather than
10 *Chapters*. This terminology is intended to distinguish references to existing chapters in the Draft
11 EIR/EIS from references to new sections in the RDEIR/SDEIS that may address issues similar to
12 those presented in the Draft EIR/EIS. In many instances, new information and project changes are
13 addressed in stand-alone essays. Each essay discusses a discrete topic that has received substantive
14 comment. These stand-alone essays are intended to make this document as user friendly as possible,
15 and to avoid reprinting thousands of pages on which minor modifications might have been made.

16 The topical essays in Section 2 of the RDEIR/SDEIS are listed below.

- 17 ● Section 2.1, *Improved Fish and Aquatic Habitat Analyses*, summarizes revisions made to chapter
18 11, *Fish and Aquatic Resources* of the Draft EIR/EIS.
- 19 ● Section 2.2, *Water Quality Revisions*, describes additional analyses undertaken to more
20 accurately characterize the potential for exceedances of water quality standards and
21 summarizes associated revisions.
- 22 ● Section 2.3, *Air Quality, Health Risk Assessment, Transportation, and Noise Revisions*, presents
23 revised emissions calculations based on improved construction assumptions and updates the
24 health risk assessment, traffic, and noise analyses to reflect improved construction data.
- 25 ● Section 2.4, *Revised Project Description and Enhanced Level of Detail*, presents additional
26 revisions that explain how, for the purposes of CEQA and NEPA, project-level detail is included
27 for water conveyance facilities and provides additional information about early implementation
28 actions, including examples of habitat restoration and enhancement activities.
- 29 ● Section 2.5, *Analysis of Geotechnical Investigations*, provides an explanation about the method for
30 incorporating analyses of geotechnical investigations into the analysis of the water conveyance
31 facilities construction

32 In cases where the essay format was not appropriate, or where actual text changes were necessary
33 to complement particular essays, the RDEIR/SDEIS includes modified excerpts of text that originally
34 appeared in the Draft EIR/EIS, with underlining showing new language and strikeout showing
35 eliminated text. These underline/strikeout revisions are referenced in the main text of the
36 RDEIR/SDEIS as Appendix A, *Revisions to the Draft EIR/EIS*, which contains the actual text revisions.
37 Appendix A does not include Draft EIR/EIS text that was not changed or that may be modified in the
38 Final EIR/EIR in a non-substantive manner, and is focused primarily on impact analysis revisions to
39 Alternative 4, though other BDCP alternatives are addressed for some of the resources for various
40 reasons. To give readers the best possible sense of the context in which such text changes occur,
41 Appendix A includes section headings before and after modified passages, so that readers can
42 understand precisely where within Draft EIR/EIS chapters the revisions occur. Table 1-2 in Section

1, *Introduction*, provides an overview of the Draft EIR/EIS chapters in which substantive changes have been made in this RDEIR/SDEIS and identifies the topics that are addressed in each chapter as shown in Appendix A. For a visual representation of how the document is laid out and how various segments relate to one another, please see the *Document Review Road Map*.

ES.1.4.1 Alternative 4 Revisions

Section 3, *Alternative 4: Conveyance Facility Modifications*, provides an overview of the optimized design of water conveyance facilities associated with Alternative 4, and a summary discussion of the impacts and other associated text revisions made in each affected resource chapter. The resource summaries refer the reader to Appendix A of the RDEIR/SDEIS for detailed revisions made to the Draft EIR/EIS text. Topics include surface water, groundwater, water quality, geology and seismicity, soils, fish and aquatic resources, terrestrial biological resources, land use, agricultural resources, recreation, socioeconomics, aesthetics and visual resources, cultural resources, transportation, public services and utilities, energy, air quality, noise, hazards and hazardous materials, public health, minerals, and paleontological resources.

ES.1.4.2 Alternative 4A, 2D, and 5A Analyses

Description and analysis of new sub-alternatives are presented in Section 4, *New Alternatives: Alternatives 4A, 2D, and 5A*. Analyses presented in this section address impacts for all the resource topics considered in the Draft EIR/EIS. Impacts for which substantive changes have been identified are presented in full impact format with CEQA conclusions and NEPA effects and proposed mitigation measures where they are feasible and required to reduce a significant impact. Impact analyses also include revisions made to the No Action Alternative ELT for the purpose of providing a logical point of comparison for the NEPA analysis of Alternatives 4A, 2D, and 5A.

ES.1.4.3 Cumulative Impact Analyses

Section 5 of this RDEIR/SDEIS addresses revisions to the cumulative impacts analyses. In response to comments, and in light of new information, this RDEIR/SDEIS includes additional reasonably foreseeable proposed projects that, when considered together with the action alternatives, could have a significant cumulative effect. The analysis includes a discussion of the California Water Action Plan, California EcoRestore, and the Sustainable Groundwater Management Act to better describe the roles of the new Delta conveyance facilities and habitat restoration in the context of the state's comprehensive vision for water management.

ES.1.4.4 Supplemental Appendices

Additional components of this RDEIR/SDEIS include multiple appendices, in addition to Appendix A described above, that provide new or updated data used in the revised analyses.

- Appendix B, *Supplemental Modeling Results for New Alternatives*, provides additional CALSIM II, DSM2, and other modeling results referenced for Alternative 4A, 2D, and 5A operations impacts.
- Appendix C, *Supplemental Modeling Results Requested by the State Water Resources Control Board Related to Increased Delta Outflows*, provides supplemental modeling for use in the State Water Board permit process.
- Appendix D, *Substantive BDCP Revisions*, provides the changes that were made to the BDCP after the circulation of the Draft BDCP and Draft EIR/EIS and that are referenced in the RDEIR/SDEIS.

- 1 • Appendix E, *Supplemental Information for U.S. Army Corps of Engineers Permitting Requirements*,
2 provides additional information needed for Corps wetland, navigation, levee modification, and
3 cultural resources permitting processes.
- 4 • Appendix F, *Supplemental Modeling Results at ELT for Alternative 4*, provides supplemental
5 CALSIM II and DSM2 results for Alternative 4 at the early-long-term that describe H1 and H2
6 operations scenarios.
- 7 • Appendix G, *Alternative 4A (Proposed Project) Compatibility with the Delta Plan*, provides an
8 approach that may be considered for Alternative 4A to meet the Delta Plan consistency
9 requirements.

10 All components of this RDEIR/SDEIS should be considered complementary to, and should be read
11 and reviewed as supplemental elements of, the December 2013 Bay Delta Conservation Plan Draft
12 Environmental Impact Report/Environmental Impact Statement. The Final EIR/EIS will include the
13 entire presentation of all text changes made to the Draft EIR/EIS.

14 ES.1.5 Key RDEIR/SDEIS Terms

15 Due to the changes to the proposed project, there are several key terms that readers should be
16 aware of when reviewing this RDEIR/SDEIS.

- 17 • **Plan Area and Study Area.** The terms Plan Area and Study Area are still applied to the impact
18 analysis of Alternatives 4A, 2D, and 5A and all associated figures, tables, etc., since the activities
19 pursued under these alternatives would take place in the same geographical area as the Plan
20 Area; and the potential impacts would still occur in what was defined as the Study Area in the
21 Draft EIR/EIS.
- 22 • **Conservation Measures and Environmental Commitments.** Because Alternatives 4A, 2D, and
23 5A do not include components of a HCP/NCCP, these alternatives do not include Conservation
24 Measures (which are specifically required under Section 10 of the Federal ESA). Rather, limited
25 elements of the previously proposed Conservation Measures are included as “Environmental
26 Commitments” under Alternative 4A to mitigate significant environmental effects under CEQA
27 and meet the regulatory standards of ESA Section 7 and CESA Section 2081(b). To aid reviewers,
28 the Environmental Commitments are numbered to parallel the BDCP (Alternative 4)
29 Conservation Measures, as shown in the examples below.

| | | |
|----------------|----------------------------|--|
| Alternative 4A | Environmental Commitment 3 | Natural Communities Protection and Restoration |
| Alternative 4 | Conservation Measure 3 | Natural Communities Protection and Restoration |

- 30
- 31 • **Biological Goals and Objectives and Resource Restoration and Protection Principles for**
32 **Implementing Environmental Commitments.** Alternatives 4A, 2D, and 5A do not include
33 specific Biological Goals and Objectives such as were included in the BDCP (Alternative 4)
34 because these alternatives do not comprise a proposed HCP/NCCP. However, Alternatives 4A,
35 2D, and 5A do include species-specific resource restoration and protection principles for
36 implementing Environmental Commitments that would ensure that the implementation of these
37 commitments would achieve the intended mitigation of impacts.
- 38 • **Conservation Zones and Restoration Opportunity Areas.** Similar to the Plan Area and Study
39 Area, the Conservation Zones and Restoration Opportunity Areas are still applied to the impact

1 analysis of Alternatives 4A, 2D, and 5A and all associated figures, tables, etc., since the activities
 2 pursued under these alternatives are expected to take place in these same areas.

- 3 • **Covered Activities and Covered Species.** Alternatives 4A, 2D, and 5A do not include a list of
 4 “covered species” or “covered activities” since these concepts are not requirements of the ESA
 5 Section 7 or CESA Section 2081(b) permit processes. However, this RDEIR/SDEIS does include
 6 analysis of the special-status species addressed in the new permit process, to the extent that
 7 implementation of Alternatives 4A, 2D, and 5A could result in impacts to these species.

8 **ES.1.6 Public Review Process**

9 All of the comments received during the Draft EIR/EIS 2013–2014 public review period were
 10 considered in the development of this RDEIR/SDEIS. This RDEIR/SDEIS does not include responses
 11 to comments on the Draft EIR/EIS, though some revisions have been made in response to comments
 12 received on the Draft EIR/EIS. New public comments made during the public review period for the
 13 RDEIR/SDEIS should be specific only to the newly circulated information contained in the
 14 RDEIR/SDEIS and should not address issues not directly included in the RDEIR/SDEIS. The Lead
 15 Agencies intend to only respond to comments that address analysis included within this
 16 RDEIR/SDEIS and not those related solely to the original Draft EIR/EIS. Formal responses to the
 17 comments previously submitted on the Draft BDCP and Draft EIR/EIS, as well as comments received
 18 on this RDEIR/SDEIS, will be published in the Final EIR/EIS.

19 This RDEIR/SDEIS is being noticed and circulated for public review and comment until August 31,
 20 2015 in the same manner as the draft documents that were issued for public review on December
 21 13, 2013. Two public meetings will be held to receive comments on the RDEIR/SDEIS, on Tuesday,
 22 July 28 in Sacramento, and on Wednesday, July 29, in Walnut Grove. Comments can also be
 23 submitted by U.S. mail or email.

24 BDCP Comments
 25 P.O. Box 1919
 26 Sacramento, CA 95812
 27 BDCPComments@icfi.com

28 Following the close of the public review period, the Lead Agencies will consider and respond to all
 29 significant environmental issues raised in comments on the RDEIR/SDEIS (along with comments
 30 previously received on the Draft EIR/EIS) and incorporate revisions and response to comments into
 31 the Final EIR/EIS. The Final EIR/EIS will be circulated for a 30-day NEPA review period. Following
 32 completion of the Final EIR/EIS and the NEPA 30-day review period, DWR and Reclamation
 33 decision-makers will have the opportunity to certify/approve the Final EIR/EIS and submit a Notice
 34 of Determination/Record of Decision (NOD/ROD). Upon completion of the NOD/ROD, the agencies
 35 would be able to move forward with final permit approval and implementation.

36 **ES.2 Description of Alternatives**

37 In December 2014, state and federal Lead Agencies, along with the administration of Governor
 38 Edmund G. Brown Jr., announced several changes to the proposed water conveyance facilities to
 39 reduce environmental impacts. Since 2014, additional modifications to the proposed conveyance
 40 facilities and operations have been made based on refined engineering analysis and in consideration