

Draft Addendum to the Delta Plan Programmatic Environmental Impact Report

May 2016



DELTA STEWARDSHIP COUNCIL

This page intentionally left blank

Table of Contents

Section 1 Introduction	1
Section 2 Project Description	2
2.1 Next Steps.....	5
Section 3 Project History	5
3.1 Single-year Water Transfers in the Delta Plan.....	5
3.1.1 Single-year and Multi-year Water Transfers.....	6
3.2 Review of Single-year Water Transfers for Potential Changes in the Delta Plan.....	6
3.2.1 July 23, 2015 Council Meeting.....	6
3.2.1.1 Public Comments.....	7
3.2.2 September 24, 2015 Council Meeting.....	7
3.2.2.1 Panel 1: Information Compiled by DWR and SWRCB in Accordance with WR R15.....	7
3.2.2.2 Panel 2: Potential Impacts on the Environment Related to Water Transfers.....	10
3.2.2.3 Panel 3: Typical Schedules and Procedures for Water Transfers.....	11
3.2.2.4 Public Comments.....	12
3.2.3 November 19, 2015 Council Meeting.....	12
3.2.3.1 Public Comments.....	14
3.2.3.2 Council Comments and Decisions.....	15
3.2.4 December 17, 2015 Council Meeting.....	15
3.2.4.1 Public Comments.....	16
3.2.4.2 Council Comments and Decisions.....	16
Section 4 Overview of Water Transfers	16
4.1 Water Transfer Methods.....	17
4.1.1 Construction Activities and Water Transfers.....	19
4.1.1.1 Multi-year Water Transfers.....	19
4.1.1.2 Single-year Water Transfers.....	20
4.2 Approvals of Water Transfers.....	20
4.2.1 State Water Resources Control Board Water Transfer Process.....	20

4.2.1.1 Overview of Water Rights types Considered for Water Transfers	20
4.2.1.2 State Water Resources Control Board Process for Water Transfers.....	21
4.2.2 Department of Water Resources Process for Water Transfers Under Water Code Section 1810	22
4.2.3 Department of Water Resources and Bureau of Reclamation Process for Cross-Delta Water Transfers.....	22
4.2.3.1 Department of Water Resources and Bureau of Reclamation Water Transfers White Paper Requirements.....	23
4.3 Recent Cross-Delta Water Transfers	27
Section 5 Environmental Checklist for Addendum to the Delta Plan Programmatic EIR.....	30
5.1 Consideration of Results of Similar Programmatic Analyses of Water Transfers.....	31
5.2 Water Resources	31
5.3 Biological Resources	34
5.4 Delta Flood Risk.....	37
5.5 Land Use Planning.....	39
5.6 Agriculture and Forestry Resources.....	41
5.7 Visual Resources	43
5.8 Air Quality	44
5.9 Cultural Resources	47
5.10 Geology and Soils.....	48
5.11 Paleontological Resources	52
5.12 Mineral Resources.....	54
5.13 Hazards and Hazardous Materials.....	55
5.14 Noise	58
5.15 Population and Housing.....	59
5.16 Public Services	61
5.17 Recreation	62
5.18 Transportation, Traffic, and Circulation	64
5.19 Utilities and Service Systems.....	66
5.20 Climate Change and Greenhouse Gas Emissions.....	69
5.21 Mandatory Findings of Significance	71
Section 6 References	74

List of Figures

Figure 1 SWP and CVP Delta Exports and Cross-Delta Water Transfers Using SWP and CVP Facilities, 2000 - 2015.....	28
Figure 2 Delta Inflow and Cross-Delta Water Transfers Using SWP and CVP Facilities, 2000 - 2015.....	29

DRAFT

This page intentionally left blank

DRAFT

Draft Addendum to the Delta Plan Programmatic Environmental Impact Report

1 Introduction

This addendum addresses the proposal to extend the determination that water transfers of less than one-year in duration (referred to as single-year water transfers) do not have significant adverse impacts within the meaning of the Delta Reform Act, Water Code section 85000 *et seq.* (Delta Reform Act). This extension would have the effect of exempting single-year water transfers from review by the Delta Stewardship Council (Council). This addendum discusses potential changes to extend a determination within the Delta Plan's implementing regulations that single-year water transfers occurring before December 31, 2016 do not have significant adverse impacts on the coequal goals, and therefore do not fit the statutory definition of a covered action. Accordingly, such water transfers would not be required to file a certification of consistency with the Delta Plan because that requirement only applies to covered actions. It also discusses potential changes to a related Delta Plan recommendation, Water Reliability Recommendation 15 (WR R15).

This addendum builds upon the Programmatic Environmental Impact Report for the Delta Plan (Delta Plan PEIR), which includes the *Draft Programmatic Environmental Impact Report for the Delta Plan* published in November 2011, the *Recirculated Draft Programmatic Environmental Impact Report for the Delta Plan* published in November 2012, and the *Final Programmatic Environmental Impact Report for the Delta Plan* published in May 2013 (included in the Section 6, References, as Council 2013a). Under the California Environmental Quality Act (CEQA) Guidelines section 15164, an addendum to a previously certified EIR is prepared if minor changes in the adopted project are proposed and none of the conditions in CEQA Guidelines section 15162 would occur.

This addendum includes the following sections:

- Section 1 – Introduction.
- Section 2 – Project Description.
- Section 3 – Project History.
- Section 4 – Overview of Water Transfers.
- Section 5 – Environmental Checklist for Addendum to the Delta Plan Programmatic EIR.

As discussed further in Section 5, an addendum is appropriate for the proposed amendments because they would not result in new or substantially more severe environmental effects requiring major revisions to the Delta Plan PEIR.

2 Project Description

The Sacramento-San Joaquin Delta Reform Act of 2009, Water Code section 85000 *et seq.* (Delta Reform Act) requires the Council to further the “coequal goals” by adopting a legally enforceable Delta Plan. It defines the coequal goals to mean “providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.” (Water Code section 85054.)

The Delta Reform Act gives the Council authority to enforce the Delta Plan by requiring any state or local agency that proposes to undertake a covered action to submit a certification of consistency with findings that set forth the reasons the covered action is or is not consistent with the Delta Plan. The Delta Reform Act defines the term “covered action” to refer, in part, to a project that “[w]ill have a *significant impact* on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interests in the Delta.” (Water Code section 85057.5(a)(4) [emphasis added]). The Delta Reform Act does not define the term “significant impact.”

In May 2013, the Council adopted the current Delta Plan (included in Section 6, References, as Council 2013b). It is a comprehensive long-term management plan for the Delta. It includes extensive descriptions and analyses of the problems facing the Delta, 14 regulatory policies and related definitions, that are binding, and 73 recommendations. The policies are found in the California Code of Regulations (CCR), 23 CCR section 5001 *et seq.*

Within the regulatory definitions, the Council included a definition for the term “significant impact.” That definition provides: “‘Significant impact’ for the purpose of determining whether a project meets the definition of a ‘covered action’ under section 5001(j)(1)(D) means a substantial positive or negative impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta, that is directly or indirectly caused by a project on its own or when the project's incremental effect is considered together with the impacts of other closely related past, present, or reasonably foreseeable future projects.”

The definition then determines that four categories of actions do not have a significant impact. One of these categories is for single-year water transfers occurring between the date of the adoption of the Delta Plan and December 31, 2016. Specifically, the definition states:

(dd) The following categories of projects will not have a significant impact for this purpose....

Temporary water transfers of up to one year in duration. This provision shall remain in effect only through December 31, 2016, and as of January 1, 2017, is repealed, unless the Council acts to extend the provision prior to that date. The Council contemplates that any extension would be based upon the California Department of Water Resources' and the State Water Resources Control Board's participation with stakeholders to identify and recommend measures to reduce procedural and administrative impediments to water transfers and protect water rights and environmental resources by December 31, 2016. These recommendations should include measures to address potential issues with recurring transfers of up to 1 year in duration and improved public notification for proposed water transfers. (23 CCR section 5001(dd)(3)).

This subsection of the regulation states the Council’s determination that single-year water transfers occurring within the designated time span would not have a significant impact on the coequal goals, and would therefore not fit the statutory definition of a covered action. Accordingly, such transfers would not be required to file certifications of consistency with the Delta Plan, because that requirement only applies

1 to covered actions. Single-year water transfers occurring after the December 31, 2016 sunset date would
2 be subject to the Council's review, provided that they meet all the statutory criteria for a covered action.

3 The Council took this approach toward single-year water transfers because, at the time it was developing
4 the Delta Plan, it had substantial evidence that single-year water transfers could have a significant impact
5 on the coequal goals, as well as substantial evidence that single-year water transfers would not have a
6 significant impact on the coequal goals. This evidence was comprehensive, informative, and authoritative,
7 but it was not conclusive. The Council thus attempted to strike a balance by exempting single-year water
8 transfers from review for the limited period after adoption of the Delta Plan and before the sunset date
9 while, in the meantime, collaborating with sister agencies and stakeholders to gather further information
10 about single-year water transfers and refine this subsection of the regulations.

11 In particular, the Council had questions about the cumulative impacts of single-year water transfers.
12 During the development of the Delta Plan, certain commenters stated that, even if single-year water
13 transfers did not have a significant impact on their own, they could have a significant impact in the
14 aggregate. These commenters raised this as a largely theoretical argument. They presented evidence that
15 single-year water transfers occurred, but not that their impacts were cumulatively significant. To account
16 for such potential cumulative impacts; however, the Council limited the duration of its initial exemption
17 for water-transfers to a period of approximately three years and seven months, thus limiting the extent to
18 which any potential cumulative impacts could occur.

19 In addition, certain commenters raised concerns that the same parties engaged in single-year water
20 transfers over the course of multiple years and that these single-year water transfers amounted to
21 recurring transfers that had the same magnitude of impacts and deserved the same level of scrutiny as
22 multi-year transfers. These commenters alleged that transferring parties structured what would otherwise
23 be multi-year transfers as recurring single-year water transfers solely to avoid greater oversight. The
24 commenters presented evidence of the same parties engaging in multiple single-year water transfers, but
25 they presented no evidence regarding the parties' intentions.

26 Although the alleged intentions of transferring parties would not affect whether their transfers would have
27 a significant impact on the coequal goals, the Council, as part of its diligence, investigated so-called
28 recurring transfers in further detail. Recurring water transfers were discussed at the Council meetings in
29 2015 (see Section 3.2, *Review of Single-year Water Transfers for Potential Changes in the Delta Plan*, in
30 this addendum) and considered in several reports prepared by the Department of Water Resources (DWR)
31 and State Water Resources Control Board (SWRCB) (DWR and SWRCB 2015a, 2015b). These
32 discussions and reports found that recurring transfers may exist as a theoretical concept but not as a
33 practical reality. The presenters at the Council meetings explained that each transfer is unique with
34 respect to the water sources, volumes of transfer water available and needed, parcels of land participating
35 in providing and using the transferred water, and available capacity in State Water Project (SWP) and
36 Central Valley Project (CVP) facilities for cross-Delta water transfers. The water transferors and the users
37 of the transferred water need to annually assess the feasibility of water transfers with respect to a
38 determination of the availability of other water supplies that would be less costly and easier to obtain;
39 availability of SWP and CVP water supplies based upon the preliminary and final SWP and CVP water
40 allocations in March and April, respectively; and the availability of conveyance capacity in the SWP and
41 CVP facilities which is determined in April based upon final contract water allocations. Because these
42 factors change each year, there does not appear to be any pattern to the recurring use of the same methods
43 or geographic locations to provide transfer water under single-year water transfers.

44 At the same time, other commenters presented evidence regarding the important contribution of water
45 transfers to water supplies and the existing regulatory controls over water transfers (see Section 3.1,
46 *Single-Year Water Transfers in the Delta Plan*, of this addendum). These same commenters raised
47 concerns that the need for single-year water transfers is often time-sensitive (due to growing seasons,

1 regulatory constraints, or other factors) and an appeal to the Council could prevent certain transfers from
2 proceeding according to the transferring parties' preferred time frames.

3 To gather further evidence about single-year water transfers – including about potential cumulative
4 impacts and alleged recurring transfers – the Council included language in the definition of “significant
5 impacts” that encouraged the DWR, SWRCB, and others to develop recommendations for improvements
6 to the Council’s regulation of single-year water transfers. To incentivize the agencies to act quickly, and
7 to ensure that it received their recommendations before the end of the sunset period, the Council expressly
8 requested that the agencies provide their recommendations by December 31, 2016. In addition, the
9 Council adopted WR R15, which had similar language and similar aims, and which provided that:

10 *The California Department of Water Resources and the State Water Resources Control Board*
11 *should work with stakeholders to identify and recommend measures to reduce procedural and*
12 *administrative impediments to water transfers and protect water rights and environmental*
13 *resources by December 31, 2016. These recommendations should include measures to address*
14 *potential issues with recurring transfers of up to 1 year in duration and improved public*
15 *notification for proposed water transfers*

16 Pursuant to the Council’s requests, DWR and SWRCB consulted with the Council and provided it with
17 two specially prepared reports: (a) *Report on Background and Recent History of Water Transfers in*
18 *California*, and (b) *Water Transfers and the Delta Plan*. These reports complemented the materials that
19 the Council reviewed during the development of the original Delta Plan and that were included in the
20 administrative record for the original Delta Plan and Delta Plan PEIR.

21 Over the course of 2015, the Council discussed amending the single-year water transfers determination at
22 four meetings: July 23, September 24, November 19, and December 17. At these meetings, the Council
23 received additional information on single-year water transfers, including in the form of public comments
24 and in the form of presentations from subject matter experts, as described more fully in Section 3.2 of this
25 addendum. Following this review, at its the December 17, 2015 meeting, the Council considered two
26 versions of the Proposed Project and adopted the description of one of them – known as Option 1 – for
27 the purposed of conducting environmental review. That description would amend the existing definition of
28 “significant impact” by eliminating the sunset date for the determination regarding single-year water
29 transfers. That amendment would change the definition as follows:

30 *(dd) “Significant impact” for the purpose of determining whether a project meets the definition of*
31 *a “covered action” under section 5001(j)(1)(D) means a substantial positive or negative impact*
32 *on the achievement of one or both of the coequal goals or the implementation of a government-*
33 *sponsored flood control program to reduce risks to people, property, and State interests in the*
34 *Delta, that is directly or indirectly caused by a project on its own or when the project's*
35 *incremental effect is considered together with the impacts of other closely related past, present,*
36 *or reasonably foreseeable future projects. The following categories of projects will not have a*
37 *significant impact for this purpose...*

38 *(3) Temporary water transfers of up to one year in duration. This provision shall remain in*
39 *effect only through December 31, 2016, and as of January 1, 2017, is repealed, unless the*
40 *Council acts to extend the provision prior to that date. The Council contemplates that any*
41 *extension would be based upon the California Department of Water Resources' and the State*
42 *Water Resources Control Board's participation with stakeholders to identify and recommend*
43 *measures to reduce procedural and administrative impediments to water transfers and*
44 *protect water rights and environmental resources by December 31, 2016. These*
45 *recommendations should include measures to address potential issues with recurring*
46 *transfers of up to 1 year in duration and improved public notification for proposed water*
47 *transfers.*

1 Additionally, the description of the Proposed Project includes the following amendments to WR R15:

2 Enhanced Interagency Cooperation, Review and Reporting of Cross-Delta Water Transfers
 3 Improve Water Transfer Procedures (WR R15). The California Department of Water Resources
 4 and the State Water Resources Control Board should work with stakeholders to identify and
 5 recommend measures to reduce procedural and administrative impediments to water transfers
 6 and protect water rights and environmental resources by December 31, 2016. These
 7 recommendations should include measures to address potential issues with recurring transfers of
 8 up to 1 year in duration and improved public notification for proposed water transfers. In
 9 coordination with the California Department of Fish and Wildlife, should memorialize in writing
 10 by December 31, 2016, procedures that build upon, and make routine, the drought-related,
 11 enhanced level of interagency cooperation and review of proposed cross-Delta water transfers.
 12 The procedures should promote increased efficiency and flexibility, while ensuring the following:
 13 (1) the protection of water rights and environmental resources; and (2) transparency and
 14 accountability, including sharing of relevant information and standardizing public reporting on
 15 cross-Delta water transfers.

16 2.1 Next Steps

17 If the Council adopts this addendum, it could consider whether to submit the proposed amendments to 23
 18 CCR section 5001 *et seq.* and WR R15. If amendments to 23 CCR section 5001 *et seq.* are proposed by
 19 the Council, the proposed amendments would be submitted to the State Office of Administrative Law for
 20 its review and approval.

21 3 Project History

22 3.1 Single-year Water Transfers in the Delta Plan

23 The Delta Plan recognizes that water transfers that occur in whole or in part in the Delta can be an
 24 important tool for improving water supply reliability (Council 2013b). However, at the time it developed
 25 the Delta Plan, the Council recognized the value of developing an interim approach to single-year water
 26 transfers while it researched the issue further and refined its regulation. With this goal in mind, and in
 27 light of the substantial evidence in the administrative record, the Council determined that single-year
 28 water transfers occurring between the date of the adoption of the Delta Plan and the end of 2016 would
 29 not have a significant impact on the coequal goals.

30 In reaching this determination, the Council was mindful that the Water Code declares that it is “the
 31 established policy of this state to facilitate the voluntary transfer of water and water rights where
 32 consistent with the public welfare of the place of export and the place of import” (section 109 (a)). It was
 33 also aware that sister agencies already had frameworks for reviewing certain single-year water transfers.

34 Under these frameworks, most single-year, cross-Delta transfers must already be reviewed and approved
 35 by SWRCB, DWR, and/or U.S. Department of Interior Bureau of Reclamation (Reclamation). Single-
 36 year water transfers that are outside the jurisdiction of SWRCB but that use DWR’s conveyance
 37 infrastructure must comply with CEQA. Similarly, single-year water transfers that use Reclamation’s
 38 conveyance infrastructure must be evaluated under NEPA and CEQA. As discussed more fully below,
 39 only a small percentage of cross-Delta single-year water transfers are not reviewed by SWRCB, DWR,
 40 and/or Reclamation, and most of those transfers are still subject to CEQA review¹. Finally, if the transfers
 41 implicate the California Endangered Species Act (CESA) or the Federal Endangered Species Act (ESA),

¹ Water Code section 1729 creates a CEQA exemption for those single-year water transfers subject only to review by the SWRCB.

1 they would require consultation with the State Department of Fish and Wildlife (DFW) or the U.S. Fish
2 and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS).

3 **3.1.1 Single-year and Multi-year Water Transfers**

4 The SWRCB must review and approve transfers of water that would occur under post-1914 water rights
5 and that would require amendments to those rights. The Water Code creates separate statutory schemes
6 for the SWRCB's review of single-year water transfers and multi-year transfers. In general, the key
7 distinction between these two schemes is that single-year water transfers are entitled to a faster review
8 and are exempt from CEQA. The SWRCB may only approve single-year water transfers that would not
9 injure any legal user of the water or unreasonably affect fish, wildlife, or other instream beneficial uses.
10 The Council found relevance in the distinction between single-year and multi-year transfers and chose to
11 incorporate a similar distinction into its regulations.

12 **3.2 Review of Single-year Water Transfers for Potential** 13 **Changes in the Delta Plan**

14 At its March 25, 2015 meeting, the Council discussed a list of priority tasks to be completed in 2015. One
15 of those tasks was to Review and update Delta Plan Water Transfer policies and recommendations by
16 December 2015. This task includes two milestones: (a) working with DWR and SWRCB to demonstrate
17 compliance with WR R15, and (b) review temporary exemption for single-year water transfers and
18 recommend new or refined Delta Plan water transfer provisions with the acknowledgement that the
19 exemption would be eliminated, or sunset, after December 31, 2016.

20 In response to this priority task, the Council discussed amending the single-year water transfers
21 determination at four meetings over the course of 2015: July 23, September 24, November 19, and
22 December 17. At these meetings, the Council received additional information on single-year water
23 transfers, including in the form of public comments and in the form of presentations from subject matter
24 experts, as described in this section of this addendum. Following this review, at the December 17, 2015
25 meeting, the Council adopted a description of the Proposed Project for purposes of conducting
26 environmental review as presented in this addendum.

27 **3.2.1 July 23, 2015 Council Meeting**

28 At the July 23, 2015 Council meeting, an overview of water transfers in California and a summary of
29 future panel discussions to present items identified in WR R15 were presented by Council staff. The
30 overview discussion of water transfers described the need for water transfers to improve water supply
31 reliability by moving water from geographical areas with available water supplies to geographical areas
32 without adequate water supplies. A range of water transfer methods and applicable related regulatory
33 processes was discussed for water conservation, groundwater substitution, crop idling and crop shifting,
34 and reservoir storage modifications.

35 The information presented indicated that for single-year cross-Delta water transfers using DWR or
36 Reclamation conveyance facilities, the transfer proposals need to be submitted to DWR or Reclamation
37 for regulatory review in January to allow for cross-Delta water transfers in July through September, as
38 allowed under the 2008 USFWS and 2009 NMFS biological opinions.

39 The discussion also included risks that are inherent in water transfers. The *Background and Recent*
40 *History of Water Transfers in California* report (DWR and SWRCB 2015a) was attached to the agenda
41 packet. Information discussed at this Council meeting and additional related information are included in
42 Section 4, *Overview of Water Transfers*, in this addendum.

1 3.2.1.1 Public Comments

2 Public comments were provided at this meeting by Michael Jackson, representative for AquaAlliance, and
3 John Mills, representative for upstream water agencies. The representative for AquaAlliance commented
4 on the potential for reduced groundwater elevations due to the use of groundwater substitution methods.
5 The comments included a discussion related to the interaction between reduced groundwater elevations,
6 individual wells becoming dry, and elimination of ponded habitat areas that are supported by high
7 groundwater. The AquaAlliance representative also commented about concerns related to the possible
8 extinction of Delta smelt due to cross-Delta water transfers, and depletion of stream flows due to
9 groundwater substitution methods. The representative requested participation in the future panel
10 discussion at the Council related to single-year water transfers and suggested that representatives of
11 California Sportfishing Protection Alliance and Delta farmers also be included in the panel discussion.

12 The representative for upstream water agencies stated that the upstream water agencies are interested in
13 transfers; however, it must be recognized that recent actions could change future water resources,
14 including the increased use of water conservation and development and implementation of Integrated
15 Regional Water Management plans, recycle programs and headwater improvement programs. The
16 upstream water agencies representative asked: (a) if the Council would consider options related to water
17 transfers with or without assumptions for the Bay-Delta Conservation Plan; and (b) if the Council is
18 aware of any problems with single-year water transfers in the past few years. The upstream water
19 agencies representative commented that: (a) water transfer methods should include water conservation;
20 and (b) the Delta Plan policies should reflect recent changes in regional water resources management
21 which occurred during the drought and could affect future single-year water transfers.

22 3.2.2 September 24, 2015 Council Meeting

23 At the September 24, 2015 Council meeting, the Council staff discussed that water transfers have
24 contributed to portions of the statewide water supply reliability process, and that there are established
25 regulatory processes for review of most water transfers. The discussion also included references to the
26 State of California Governor's Executive Order issued on May 20, 2013 that directed state agencies,
27 including DWR and SWRCB, to expedite review and processing of water transfers. The Governor's
28 Executive Order issued on April 25, 2014 reduced the SWRCB public noticing period specified in Water
29 Code section 1726(f) for single-year water transfers from 30 days to 15 days.

30 At this meeting, the Council convened three panels to discuss issues related to single-year water transfers,
31 as summarized below. The first panel focused on information compiled and evaluated by DWR and
32 SWRCB in accordance with WR R15. The second panel focused on potential impacts on the environment
33 related to water transfers. The third panel focused on typical schedules for water transfers and procedural
34 considerations.

35 3.2.2.1 Panel 1: Information Compiled by DWR and SWRCB in Accordance with WR R15

36 Panel 1 included Bill Croyle, DWR Deputy Director Statewide Emergency Preparedness and Security;
37 Jerry Johns, consultant to DWR; and Tom Howard, SWRCB Executive Director. The DWR and the
38 SWRCB representatives briefed the Council about their agencies' consultations with stakeholders, water
39 transfer information compiled in the 2013-2015 time period, changes to water transfer review process in
40 the 2013-2015 time period, and recommendations for future water transfer processes, as recommended in
41 WR R15.

42 The DWR and SWRCB representatives provided two reports to the Council that were prepared by DWR
43 and SWRCB in accordance with the recommendations in WR R15: *Water Transfers and the Delta Plan*
44 (DWR and SWRCB 2015b) and *Background and Recent History of Water Transfers in California* (DWR
45 and SWRCB 2015a) (also included in the July 23, 2015 Council meeting agenda packet). The DWR
46 representative also provided the Council with the 2015 technical guidance document for single-year and

1 multi-year water transfers developed by DWR and Reclamation, the *Draft Technical Information for*
2 *Preparing Water Transfer Proposals (Water Transfer White Paper), Information for Parties Preparing*
3 *Proposals for Water Transfers Requiring Department of Water Resources or Bureau of Reclamation*
4 *Approval* (DWR and Reclamation 2015). The DWR representative explained that the *Water Transfer*
5 *White Paper* was updated annually by DWR and Reclamation with recent modifications to provide
6 criteria and/or objectives to protect special status species (e.g. Giant Garter Snake), manage remnant
7 vegetation, and establish monitoring programs for land subsidence. The water transfer review process was
8 developed to protect all water users in the Delta and upstream of the Delta where cross-Delta water
9 transfers originate. Water transfers involving water delivered by the SWP or using SWP facilities must
10 comply with the guidance in the current *Water Transfer White Paper* (DWR and Reclamation 2015).

11 A representative of DWR presented a series of slides (DWR 2015) and described information in the
12 written reports cited above. The DWR representative discussed changes that have occurred in the water
13 transfer process as a result of the Governor's May 20, 2013 and April 25, 2014 Executive Orders that
14 directed DWR and the SWRCB to expedite the review and processing of water transfer applications.
15 These changes have included development and refinement of DWR's water transfer website to increase
16 transparency of the water transfer process by providing information on the water transfer processes and
17 resources available to assist in developing water transfer proposals. DWR and SWRCB are currently
18 developing an on-line application website with robust geospatial information integrated with the website
19 to facilitate the review of water transfer applications. Reviews of proposed single-year water transfers are
20 coordinated among SWRCB, Reclamation, and DWR, and the review process is initiated early in the
21 process.

22 The DWR representative stated that DWR and SWRCB held a Listening Session on April 29, 2014 to
23 solicit recommendations for streamlining the single-year water transfer process which was attended by 25
24 individuals. Subsequent stakeholder meetings were held to discuss technical information and current
25 water transfer issues. In late-summer 2014, DWR met with individual stakeholders to discuss successes
26 and continuing issues with single-year water transfer proposals in 2014. Results from these meetings were
27 used to improve the water transfer proposal review process, including early involvement by DWR and
28 SWRCB management staff to streamline review of non-typical water transfer proposals. The DWR
29 representative also discussed initiation of regular meetings of an interagency coordination team that
30 includes DWR, SWRCB, Reclamation, USFWS, NMFS, and DFW to exchange information about water
31 transfer proposals. The results from these meetings are used by SWRCB, DWR, and Reclamation in
32 review of the water transfer proposals.

33 The DWR representatives discussed that DWR and Reclamation are developing a new modeling tool to
34 more accurately estimate the streamflow depletion factor (see Section 4, *Overview of Water Transfers*, in
35 this addendum for discussion of this factor and other water transfer methods and processes). The DWR
36 representatives discussed that DWR and Reclamation also initiated a Sacramento Valley Stream Flow
37 Depletion Factor Management Group, starting in February 2015, to provide management and technical
38 guidance to groundwater modeling improvements.

39 The DWR representative discussed that cross-Delta water transfers using existing conveyance facilities,
40 including those owned by DWR and Reclamation, primarily occur in drier years when capacity is
41 available and local water supplies are reduced. The DWR representative stated that water transfers
42 involving SWP facilities generally occur when the annual SWP allocation provides less than 50 percent of
43 SWP water contract amounts. Similarly, water transfers involving CVP facilities generally occur when
44 the annual CVP allocation provides less than 40 percent of CVP water contract amounts.

45 A summary of total cross-Delta water transfers in 2014 and 2015 that used the DWR and/or Reclamation
46 conveyance facilities was presented by the DWR representative. These include water transfers between
47 SWP water contractors and between CVP water contractors, as summarized below:

- 1 • **2014**
- 2 ○ 419,690 acre-feet transferred cross-Delta through DWR and Reclamation's conveyance
- 3 facilities.
- 4 ○ Approximately 25 percent transferred to municipal water users.
- 5 ○ Approximately 75 percent transferred to agricultural water users.
- 6 ○ Approximately 40 percent provided through reservoir re-operation.
- 7 ○ Approximately 35 percent provided through crop idling.
- 8 ○ Approximately 25 percent provided through groundwater substitution.
- 9 • **2015**
- 10 ○ 300,602 acre-feet transferred cross-Delta through DWR and Reclamation's conveyance
- 11 facilities.
- 12 ○ Approximately 30 percent transferred to Municipal water users.
- 13 ○ Approximately 70 percent transferred to Agricultural water users.
- 14 ○ Approximately 28 percent provided through reservoir re-operation.
- 15 ○ Approximately 44 percent provided through crop idling.
- 16 ○ Approximately 28 percent provided through groundwater substitution.

17 The DWR representative stated that in 2015 less water was transferred because local agencies were less

18 inclined to transfer water that could be needed locally if the drier conditions persisted. The DWR

19 representative indicated that the ability to use reservoir re-operation water transfer methods was limited in

20 2015 because of an increased potential to not comply with the 2009 NMFS biological opinion water

21 temperature criteria in the Sacramento River. The DWR representative stated that that not all single-year

22 water transfer proposals were approved in 2014 and 2015.

23 The DWR representative stated that recurring water transfers, or serial water transfers, do not occur

24 because water transfers in each year are different based upon buyers, sellers, volumes, and timing of

25 transfers.

26 Recommendations developed by DWR staff included continued support of the existing transparent

27 website-based process, continued interagency coordination and outreach activities, and expedited posting

28 of cross-Delta water transfer information throughout the year. Based upon DWR's internal review, the

29 DWR representative indicated that additional agency review by the Council of water transfer proposals

30 would not provide additional value and could impede the water transfer process rather than streamline the

31 process as discussed in the Governor's executive orders.

32 The SWRCB representative discussed increasing efficiency in processing water transfer proposals by

33 decreasing the time period from 60 days in 2013 to 30 days in 2014 and 2015. The SWRCB

34 representative stated that the SWRCB had processed 10 water transfer proposals in 2014 and 6 in 2015

35 (plus 3 pending proposals as of September 24, 2015) for transfer of water outside of the initial Place of

36 Use allocated to the transferred water. These numbers do not include SWP-to-SWP or CVP-to-CVP water

37 transfers because the SWP and CVP operate within consolidated place of use service areas (e.g., SWP

38 water can be used anywhere within the SWP service area under the same Place of Use designation).

1 The SWRCB representative also discussed that although the same entities may participate in either
2 providing or purchasing water in consecutive years, the methods to make the water available, the parcels
3 of land that provides the transferred water, and the parcels of land that use the transferred water are
4 different each year. Therefore, the SWRCB representative stated that the SWRCB does not identify
5 similar water transfers that occur in consecutive years as recurring water transfers.

6 The SWRCB representative discussed that use of groundwater substitution continues to need to be
7 evaluated, including determination of streamflow depletion factors. The SWRCB representative discussed
8 that identifying changes due to groundwater pumping associated with water transfer activities is difficult
9 because although the groundwater in the Sacramento Valley is frequently in continuity with the surface
10 waters, the travel time of water through the soil can be slow. Therefore, the effects of groundwater
11 pumping are generally not detected for several years. The SWRCB representative stated that groundwater
12 substitution pumping represents only a small fraction of total groundwater pumping in the Sacramento
13 Valley. The SWRCB representative stated that the future groundwater management plans scheduled to be
14 prepared by the early 2020s in accordance with the Sustainable Groundwater Management Act will
15 provide additional information about total groundwater pumping.

16 In response to questions from the Council, the SWRCB representative discussed that the current review
17 processes under the SWRCB, DWR, and Reclamation are protective of the water rights; however, more
18 information is needed related to effects of groundwater substitution methods in water transfers. The DWR
19 representative discussed the need for improved methods to determine streamflow depletion factors, such
20 as the ongoing efforts by DWR and Reclamation to improve groundwater models.

21 In response to questions from the Council, the DWR representative indicated that for water transfers that
22 use capacity in the SWP facilities, DWR determines the economic effects in the county of origin of the
23 water transfer on a countywide basis.

24 The DWR representative also discussed the need for carriage water provisions as part of cross-Delta
25 water transfers that rely upon SWP and/or CVP Delta conveyance facilities. The carriage water provisions
26 provide water to maintain Delta outflow and water quality, and with amounts calculated as a percentage
27 of the volume of cross-Delta water transfer. In 2014, DWR and Reclamation required 20 percent of the
28 cross-Delta water transfer to be provided for carriage water. In 2015, the carriage water was calculated as
29 30 percent of the cross-Delta water transfer.

30 The DWR representative described schedule constraints that were identified in the discussions with
31 stakeholders, such as the need for water transfers that use crop idling to be approved by April or May so
32 that farmers can implement planting decisions.

33 3.2.2.2 Panel 2: Potential Impacts on the Environment Related to Water Transfers

34 Panel 2 included Dr. Bruce Herbold, and Estuarine Ecology consultant; and Sandi Matsumoto, The
35 Nature Conservancy Associated Director of Integrated Water Management. Michael Jackson (who
36 provided public comments as a representative of AquaAlliance at the July 23, 2015 Council Meeting) had
37 requested to be part of this panel and was invited. However, Mr. Jackson did not appear for the panel
38 discussion.

39 The Estuarine Ecology consultant presented a series of slides (Herbold 2015) and discussed that single-
40 year water transfers appeared to be used as a response to emergency conditions that could have been
41 avoided if water supplies had been managed over a multiple year period rather than annually. The
42 Estuarine Ecology consultant discussed that by managing water supplies over multiple-year time periods,
43 storage could be conserved for two-year droughts, and water could be conveyed in the rivers downstream
44 of the SWP and CVP reservoirs in a manner to benefit fisheries. The Estuarine Ecology consultant also
45 discussed that water transfers during droughts could result in adverse impacts to Delta fisheries because
46 the flow patterns in the rivers would be altered at a time when fish are moving from the more saline

1 western Delta marshes into the rivers where freshwater occurs. The Estuarine Ecology consultant also
2 discussed that water transfers could result in potential adverse impacts to fisheries upstream of the Delta
3 related to streamflow depletion and increased water temperature effects. The Estuarine Ecology
4 consultant recommended avoiding the use of single-year water transfers by implementing multiple-year
5 water management methods to conserve storage across multiple years, avoiding water transfers during
6 droughts, and releasing transferred water in a manner to benefit salmon.

7 The representative from The Nature Conservancy presented a series of slides (TNC 2015) and discussed
8 that water transfers are an important tool for specific cases with the use of best available science to avoid
9 impacts. The Nature Conservancy representative stated that potential effects of water transfers were
10 related to the methods used to provide the transferred water, including loss of agricultural lands by crop
11 idling and loss of riverine, and loss of riparian and wetlands habitat due to streamflow depletion from
12 groundwater substitution methods. The Nature Conservancy representative discussed that water transfers
13 usually occur during droughts when the amount of cultivated acreage and refuge water supplies are
14 reduced due to lack of local water supplies; and therefore, water transfers further reduce the available
15 habitat. The Nature Conservancy representative discussed that the overall increase of groundwater
16 pumping in the Sacramento Valley (including groundwater substitution associated with water transfers)
17 has resulted in the reduction in groundwater elevations and associated reductions in surface water
18 elevations in nearby rivers and streams. The Nature Conservancy representative recommended that: (a)
19 further studies be conducted to understand the effects of water transfers on fish, birds, and animals that
20 depend on wetland habitat; (b) stream flow and groundwater monitoring be improved; and (c) further
21 studies be conducted to understand long-term surface water impacts that could occur in years following
22 groundwater pumping actions.

23 The Panel 2 participants responded to questions from the Council. The representative from The Nature
24 Conservancy discussed that water transfers could be used in a coordinated manner to improve water
25 supply reliability and improve habitat by providing some water for habitat and avoiding use of crop idling
26 or groundwater substitution in areas that could be adversely affected. The panelists discussed that
27 improved transparency related to water transfers would allow for more informed decisions. The use of
28 multiple-year water management methods and increasing measures to reduce groundwater impacts were
29 discussed by the panelists as methods to protect the Delta resources.

30 3.2.2.3 Panel 3: Typical Schedules and Procedures for Water Transfers

31 Panel 3 included Dustin Cooper representing entities that provide water for water transfers; Frances
32 Mizuno, San Luis & Delta Mendota Water Authority (SLDMWA) Assistant Executive Director; and
33 Steve Hirsch, Metropolitan Water District of Southern California (Metropolitan) Program Manager III.

34 The representative of water transferors presented a series of slides (Cooper 2015) and discussed that
35 existing laws and policies encourage water transfers; however, it is necessary to balance the regulatory
36 protections in the Water Code with a process that facilitates water transfers in a timely and effective
37 manner. The representative of water transferors discussed that the recent changes in the water transfer
38 processes implemented by DWR and SWRCB had improved the overall water transfer process; and that
39 requiring single-year water transfers to file certifications of consistency would result in duplicative efforts
40 and could extend the approval process over 150 days more than the SWRCB, DWR, and/or Reclamation
41 processes. The representative of water transferors discussed that most transfers are approved by April or
42 May to allow for crop idling or groundwater substitution decisions to be implemented at the beginning of
43 the irrigation season. With respect to recurring water transfers, the representative of water transferors
44 discussed that each transfer is unique because the water sources, volumes of transferred water, and the
45 annual assessment by sellers and buyers to determine: (a) what would be the availability of SWP and
46 CVP water allocations - which is not determined until April; (b) would the entities purchasing the
47 transferred water be able to obtain more reliable or less costly regional water supplies that will not require
48 limitations for cross-Delta water transfers; and (c) what would be the availability of conveyance capacity

1 in the SWP and CVP facilities – which cannot be known until the water allocations are determined in
2 April.

3 The representative of SLDMWA discussed that the annual demand for water transfers in their member
4 agencies in the San Joaquin Valley cannot be determined until March when preliminary SWP and CVP
5 water allocations are published or April when the final water allocations are published. The representative
6 of SLDMWA discussed that the SWP and CVP water allocations are used to determine the need for water
7 transfers and the availability of SWP and/or CVP conveyance capacity, which is generally not available
8 unless SWP allocations are 40 percent or less of contract amounts. The representative of SLDMWA
9 stated that DWR and SWRCB had improved the water transfer process, including changes to the *Water*
10 *Transfer White Paper* which is always issued in a draft version because the state of the knowledge is
11 always changing. The representative of SLDMWA discussed that due to the uncertainties for time delays
12 related to single-year water transfers, the SLDMWA worked with Reclamation to implement a multi-year
13 water transfer program which provides flexibility on an annual basis (Reclamation and SLDMWA 2015).

14 The representative of Metropolitan discussed the use of water transfers primarily in wet years to increase
15 stored water in regional surface water and groundwater storage facilities located to the south of the Delta.
16 The representative of Metropolitan addressed risks associated with multi-year water transfers, including
17 that: (a) the price of water and use of conveyance facilities could increase over the long-term period; (b)
18 the water transferors may decide not to make the water available in future years; and (c) the available
19 capacity in the SWP and CVP Delta conveyance facilities could be reduced in the future due to increased
20 regulatory criteria.

21 In response to questions from the Council, the panelists discussed that two-year water transfer programs
22 are generally not used because of the uncertainty of annual SWP and CVP water allocations, which effect
23 both the availability of transferred water and conveyance capacity in the SWP and CVP Delta facilities.

24 3.2.2.4 Public Comments

25 There were no public comments.

26 3.2.3 *November 19, 2015 Council Meeting*

27 The Council staff stated that the Delta Plan recognized that north-to-south cross-Delta water transfers can
28 be an important tool for improving water supply reliability (Council 2013b). However, the Delta Plan also
29 recognized that that legal and institutional barriers appeared to be limiting the use of transfers, including
30 the absence of a comprehensive, programmatic study of water transfers' environmental effects, which
31 could provide a consistent, more reliable, and less time-consuming basis for assessing effects of water
32 transfer on surface water, groundwater, wildlife habitat, and local economies. The Council staff discussed
33 that potential effects of multi-year water transfers and single-year water transfers reviewed by DWR, but
34 not reviewed by the SWRCB, are required to complete CEQA documents. Single-year water transfers that
35 involve CVP contract water or CVP facilities are required to complete NEPA and CEQA documents.
36 Single-year water transfers reviewed by the SWRCB are not required to complete CEQA documents,
37 even if reviewed by DWR.

38 The Council staff summarized information presented at the September 24, 2015 Council meeting,
39 information presented in reports provided by DWR to the Council as cited above, and information,
40 including the following items:

- 41 • Environmental protections implemented by DWR and Reclamation for water transfers, as
42 described in the annual *Water Transfer White Paper* (DWR and Reclamation 2015).
- 43 • Single-year water transfer approvals by DWR in 2014 and 2015:
 - 44 ○ In 2014, DWR approved 13 single-year water transfers.

- 1 ▪ 7 water transfers (79 percent of the single-year water transfers conveyed through
2 the SWP facilities) were not reviewed by the SWRCB, and required a CEQA
3 analysis for DWR approval.
- 4 ▪ 6 of the water transfers (21 percent of the single-year water transfers conveyed
5 through the SWP facilities) were reviewed by the SWRCB, and did not require a
6 CEQA analysis for DWR approval.
- 7 ○ In 2015, DWR approved 5 single-year water transfers.
- 8 ▪ 1 water transfer (10 percent of the single-year water transfers conveyed through
9 the SWP facilities) was not reviewed by the SWRCB, and required a CEQA
10 analysis for DWR approval.
- 11 ▪ 4 of the water transfers (90 percent of the single-year water transfers conveyed
12 through the SWP facilities) were reviewed by the SWRCB, and did not require a
13 CEQA analysis for DWR approval.
- 14 • The volume of cross-Delta water transfers in 2014 was 419,690 acre-feet, or approximately 6
15 percent of the total Delta inflow in 2014 (7,540,000 acre-feet). In 2015, single-year cross-
16 Delta water transfers were 300,602 acre-feet, or approximately 3 percent of the total Delta
17 inflow (9,410,000 acre-feet).
- 18 • Improved methods to expedite the review and processing of water transfers, especially single-
19 year water transfers, including formalized interagency coordinated review of transfer
20 proposals, and increased transparency of the water transfer review process using the websites.
21 The Council staff discussed that DWR representatives stated at the September Council
22 meeting that there would be continued improvements in the websites to provide on-line
23 application processes and further improve transparency.
- 24 • Statements by DWR and SWRCB representatives that in their opinions single-year water
25 transfers involving the same water agencies in consecutive years involved the transfer of
26 different volumes of water, methods used to make the water available, and parcels of land;
27 and therefore, these types of single-year water transfers were not being used to avoid
28 additional analyses required of multi-year water transfers.
- 29 • In 2014, single-year cross-Delta water transfers that did not rely upon SWP or CVP facilities
30 included at least a 5,000 acre-foot water transfer by East Bay Municipal Utility District that
31 diverted the water from the Sacramento River at the Freeport intake. In 2015, there were
32 22,000 acre-feet of single-year cross-Delta water transfers that did not rely upon SWP or
33 CVP facilities.

34 The Council staff summarized the results of recent CEQA and NEPA analyses of multi-year water
35 transfers related to the effects of water transfers on the environment, including the following items:

- 36 • The recent NEPA and CEQA document prepared by Reclamation and SLDMWA
37 (Reclamation and SLDMWA 2015) concluded that the multi-year water transfers would not
38 have a significant impact on the Delta ecosystem because the transfers were required to be
39 compliant with the 2008 USFWS and 2009 NMFS biological opinions (see Section 4,
40 *Overview of Water Transfers*, of this addendum, for additional information).
- 41 • The recent NEPA and CEQA document prepared by Reclamation and SLDMWA
42 (Reclamation and SLDMWA 2015) concluded that the multi-year water transfers would not
43 have a significant impact on groundwater and associated habitats following inclusion of
44 mitigation measures, such as use of a streamflow depletion factor.

1 The Council staff summarized information received during the September 24, 2015 Council meeting and
2 subsequent analyses related to the potential for increased salinity intrusion and entrainment of fish at the
3 SWP and CVP south Delta intakes related to single-year water transfers. The Council staff discussed that
4 conveyance of transferred water by the SWP and/or CVP would need to comply with the flow and water
5 quality criteria established by the SWRCB and by the USFWS and NMFS biological opinions. To
6 maintain the water quality, DWR and/or Reclamation would require a portion of the transferred water to
7 be used for Delta outflow as carriage water. Council staff discussed that they could not find any scientific
8 evidence indicating that cross-Delta water transfers under the existing regulatory criteria would contribute
9 to increased salinity in the western or central Delta or an increased risk of entrainment as compared to
10 conveyance of similar amounts of SWP and CVP water and multi-year water transfers under the Lower
11 Yuba River Accord.

12 The Council staff summarized information provided by The Nature Conservancy representative at the
13 September 24, 2015 Council meeting that single-year water transfers could result in habitat changes due
14 to crop idling or reduction in shallow wetlands and stream flow due to groundwater substitution. The
15 Council staff summarized additional information provided by The Nature Conservancy following the
16 September 24, 2015 Council meeting which indicated that historic groundwater pumping for local uses as
17 well as groundwater substitution in the Sacramento Valley appeared to reduce stream flow by
18 approximately 700,000 acre-feet/year. The information provided by the Nature Conservancy indicated
19 that recently average groundwater pumping for all purposes was approximately 2,200,000 acre-feet/year.
20 In 2014, approximately 60,000 acre-feet was withdrawn under groundwater substitution actions for
21 single-year water transfers, or less than 3 percent of the average groundwater pumping.

22 The Council staff also summarized information provided by the SLDMWA representative at the
23 September 24, 2015 Council meeting that supported the benefits of single-year water transfers.

24 The Council staff summarized information presented at previous Council meetings related to the potential
25 for future increases in water transfers, especially if conveyance facilities used for SWP and CVP water
26 supplies are modified, such as proposed in the California WaterFix. The Council staff acknowledged that
27 these future actions could change effects of single-year water transfers; however, these actions have not
28 been fully developed or approved. The Council staff recommended that in the future, regular reports from
29 DWR and SWRCB should be provided to the Council, and the effects of single-year water transfers on
30 the coequal goals should be reconsidered as necessary.

31 Following this report, the Council staff provided the following two options to the Council for
32 consideration.

- 33 • Option 1- amend the current regulation by lifting the sunset and making the determination of
34 no significant impact for single-year water transfers permanent.
- 35 • Option 2 – leave the current regulation intact, allowing its determination of no significant
36 impact for single-year water transfers to expire on December 31, 2016.

37 The Council staff also discussed potential related changes to WR R15 under either Option 1 or Option 2.
38 The Council staff discussed that if Option 1 was ultimately proposed as a course of action by the Council,
39 the Council also would need to consider completion of a CEQA document and modification of the
40 regulation 23 CCR section 5001(dd)(3).

41 3.2.3.1 Public Comments

42 Public comments were provided by six commenters. Tim Stroshane, representative of Restore the Delta,
43 requested the Council hold public hearings and complete an environmental impact report to address
44 single-year water transfers. He encouraged the Council to include mandated annual reviews and to

1 address cumulative effects of water transfers in the past years. He also was concerned with the cumulative
2 effect of water transfers and the Bay Delta Conservation Plan [California WaterFix].

3 Bill Croyle, representative of DWR, provided a letter of support for Option 1, and indicated that DWR
4 was committed to continuing the use and expansion of the open and transparent water transfer process and
5 formalized integrated multiple-agency water transfer review program.

6 Steve Hirsch, representative of Metropolitan, stated support of Option 1 and the continued use of
7 regulatory oversight by the SWRCB, DWR, and Reclamation. He stated that multi-year water transfers
8 have not been used by water entities as an attempt to avoid CEQA or covered action evaluations required
9 for multi-year water transfers. He discussed that multi-year water transfers have not been generally
10 implemented because they are risky to the purchasing entity due to potential adverse changes in water
11 costs, available water supplies, and/or conveyance capacity in the SWP and CVP Delta facilities.

12 John Mills, representative of upstream water agencies, stated support of Option 1. He also stated that
13 there are more upstream water transfers than cross-Delta or in-Delta water transfers. He discussed that
14 future water transfer approaches could change as SWP and CVP Delta operations are modified due to
15 various actions, such as implementation of the Sustainable Groundwater Management Act. He discussed
16 that the determination of no significant impact for single-year water transfers could be reviewed in 5 years
17 following continued collection of information by DWR and resolution of the future of the California
18 WaterFix. He discussed that future single-year water transfers could be used more frequently between
19 entities located upstream of the Delta; and multi-year water transfers could be more frequent for cross-
20 Delta water transfers. He also supported increased use of wastewater and stormwater recycling.

21 John Kingsbury, representative of Mountain Counties Water Resource Association, stated support of
22 Option 1. He discussed that water transfers are an important source of revenue to allow small water
23 agencies to replace aging infrastructure.

24 Melinda Terry, representative of North Delta Water Agency, discussed the need to develop a more
25 detailed definition of single-year water transfers. She also discussed future water resources management
26 changes that could affect single-year water transfers, including implementation of the Sustainable
27 Groundwater Management Act and decisions related to California WaterFix. Therefore, she requested that
28 the Council continue to require periodic reviews of single-year water transfers.

29 3.2.3.2 Council Comments and Decisions

30 Several Council members stated that potential cumulative effects of single-year water transfers could
31 result in changed conditions, and lead to the need to consider these water transfers as covered actions.
32 There was a discussion that the Delta Plan already is reviewed periodically at least every 5 years, and that
33 the periodic review could include an evaluation of single-year water transfers.

34 Following the discussion, the Council adopted a motion on a 4-to-2 vote directing Council staff to
35 develop a third option (Option 1(a)) for consideration at the December 17, 2015 Council meeting. The
36 third option would extend the current sunset date by 2 to 4 years from December 31, 2016. The Council
37 discussion also indicated that Option 2 would not need to be considered further.

38 3.2.4 December 17, 2015 Council Meeting

39 The Council's Executive Director, Jessica Pearson, presented results of the Council staff analyses,
40 including evaluation of a potential significant impact on the coequal goals based upon available evidence
41 as provided in white papers, testimony of experts and practitioners, and input from the Delta Science
42 Program. She stated that, based upon this evidence, Council staff reached a preliminary conclusion that
43 single-year water transfers would not have a significant impact on the coequal goals.

1 The Executive Director then presented the Council proposals for the Council to consider evaluating under
2 CEQA:

- 3 • Option 1- amend the current regulation by lifting the sunset and making the determination of
4 no significant impact for single-year water transfers permanent.
- 5 • Option 1(a) – amend the current regulation by extending the determination of no significant
6 impact for single-year water transfers and postponing the sunset until December 31, 2019.

7 3.2.4.1 Public Comments

8 Public comments were provided by two commenters. Thaddeus Bettner, representative of Glenn-Colusa
9 Irrigation District (GCID), stated that in previous years, GCID had participated in water transfers in a
10 manner that provided habitat benefits. He discussed that GCID in previous years had worked with the
11 SWRCB and Reclamation to coordinate a water transfer that improved water temperatures for Winter-run
12 Chinook Salmon in the Sacramento River as part of the water transfer actions.

13 Eric Chapman, representative of the State Water Contractors, stated his support of Option 1, and
14 discussed the need for single-year water transfer decisions to be completed in the spring to accommodate
15 decisions by water transferors and entities that purchase the water.

16 3.2.4.2 Council Comments and Decisions

17 Following the public comments, the Council discussed Options 1 and 1(a). Two of the Council members
18 stated that there could be cumulative effects of single-year water transfers that may not be readily
19 apparent to the Council, and could lead to effects on the coequal goals unless periodic review occurred
20 under Option 1(a). However, other Council members discussed that the Delta Plan is periodically
21 reviewed at least every 5 years under the Delta Reform Act, and the Council could re-consider changes to
22 the Delta Plan at any time if new information became available. Following this discussion, the Council
23 voted 5-to-2 to proceed with Option 1 as the Proposed Project for the purposes of environmental review
24 under CEQA (which is presented in this addendum).

25 4 Overview of Water Transfers

26 A water transfer is a voluntary change in the way water is normally distributed among water users in
27 response to water scarcity. Water transfers can be either single-year or long-term changes in the point of
28 diversion, place of use, or purpose of use of the water. Many transfers involve payment from the water
29 user receiving the transferred water to the user providing the water. Other transfers are water exchanges,
30 in which water is delivered by one water user to another water user, and the receiving water user returns
31 the water at a specified time or when the conditions of the agreement are met. Water transfers occur in
32 most years, but the volume of transferred water increases in drier years when areas with inadequate water
33 sources seek additional water from areas with more supplies, and the capacity to convey transferred water
34 in existing conveyance facilities is more available as compared to wetter years.

35 Water transfers can be formulated for three different periods of time depending on the short-term and
36 long-term water supply plans of the parties providing the transferred water, including: (a) less than one-
37 year in duration (referred to in this addendum as single-year water transfers), (b) multiple years in
38 duration (referred to in this addendum as multi-year water transfers), or (c) permanent water transfers
39 whereby the seller gives up their legal right or contract for use of the water (DWR and SWRCB 2015a).

40 This section of this addendum describes:

- 41 • Section 4.1 – Water Transfer Methods (description of types of actions used to provide
42 transferred water).

- 1 • Section 4.2 – Approvals of Water Transfers (description of approval process and
- 2 requirements for water transfers as required by the SWRCB, DWR, and Reclamation).
- 3 • Section 4.3 – Recent Cross-Delta Water Transfers.

4 4.1 Water Transfer Methods

5 Methods used by sellers to make transferred water available include water conservation, crop idling, crop
6 shifting, groundwater substitution, and reservoir re-regulation, as summarized below.

- 7 • **Water Conservation** methods include a wide range of actions, such as installation of
- 8 efficient irrigation systems or replacement of water supplies with recycled wastewater or
- 9 stormwater.
 - 10 ○ Water transfers developed with water conservation methods are based upon the volume
 - 11 of water previously used consumptively. For example, the amount of water evaporated
 - 12 from surface irrigation methods that is saved by installation of drip irrigation can be
 - 13 transferred. However, water accounted for in agricultural return flows or water that
 - 14 percolates into a useable groundwater aquifer cannot be transferred.
 - 15 ○ Water transfers based on water conservation by agricultural water users generally provide
 - 16 water in the spring and summer months during the irrigation season. Water transfers
 - 17 based on water conservation by municipal water users could be available throughout the
 - 18 year
 - 19 ○ Water transfers based on water conservation methods, generally do not result in changes
 - 20 cultivated acreage. As described above, water conservation methods could include
 - 21 changes in irrigation equipment (e.g. use of drip irrigation instead of spray irrigation).
 - 22 Water conservation methods also could include changes in irrigation patterns that may
 - 23 result in less water used per plant based upon production practices without changing the
 - 24 overall cultivated and irrigated acreage.
 - 25 • **Crop Idling** methods provide water through reduction in irrigated crop acreage during the
 - 26 growing season on an annual basis. Crop idling methods do not include long-term changes in
 - 27 irrigated acreage or land fallowing.
 - 28 ○ Water transfers developed with crop idling methods are based upon reduction in
 - 29 consumptive use. Therefore, the amount of water used by the plants or the amount of
 - 30 water evaporated from surface irrigation methods can be transferred. However, water
 - 31 accounted for in agricultural return flows or water that percolates into a useable
 - 32 groundwater aquifer cannot be transferred.
 - 33 ○ Water transfers based on crop idling generally provide water in the spring and summer
 - 34 months during the irrigation season. However, the farmers must decide whether to
 - 35 cultivate or sell the water through single-year water transfers early in the spring prior to
 - 36 the planting period.
 - 37 ○ Crop idling methods could result in changes in agricultural resources, biological
 - 38 resources, and local socioeconomics. In the *Long-Term Water Transfers Environmental*
 - 39 *Impact Statement/Environmental Impact Report, Final* (Long-Term Water Transfer
 - 40 EIS/EIR) (Reclamation and SLDMWA 2015), potential impacts due to crop idling
 - 41 methods included: (a) idling of lands classified as Important Farmland under the
 - 42 California Department of Conservation Farmland Mapping and Monitoring Program; (b)
 - 43 loss of water in irrigation and drainage canals or in rice fields that provided habitat

1 (especially for snakes, turtles, and/or birds); and (c) loss of agricultural-related
2 employment. Mitigation measures that were presented in the cited environmental
3 document included avoidance of idling of parcels classified as Important Farmland or
4 critical parcels used by some special status species; and maintenance of a minimum
5 amount of water in canals and on rice fields.

- 6 • **Crop Shifting** methods provide water through cultivation of a crop with a lower water
7 demand than crops historically planted on the same land parcels.
 - 8 ○ Water transfers developed with crop shifting methods are based upon reduction in
9 consumptive use. Therefore, the amount of water used by the plants or the amount of
10 water evaporated from surface irrigation methods can be transferred. However, water
11 accounted for in agricultural return flows or water that percolates into a useable
12 groundwater aquifer cannot be transferred.
 - 13 ○ Water transfers based on crop shifting generally provide water in the spring and summer
14 months during the irrigation season. However, the farmers must decide which crops to
15 cultivate or whether to sell the water through single-year water transfers early in the
16 spring prior to the planting period.
 - 17 ○ Water transfers based on crop shifting methods generally do not change the total amount
18 of cultivated acreage. However, the types of crops may be changed from higher water use
19 crops to lower water use crops (e.g. cultivating onions instead of tomatoes). Crop shifting
20 also could involve changing from irrigated crops to non-irrigated crops (e.g. irrigated
21 pasture to non-irrigated winter pasture).
 - 22 ○ Crop shifting methods would not affect use of lands classified as Important Farmlands.
23 However, crops shifting methods could result in similar effects on biological resources as
24 crop idling methods if the substitute crops did not provide similar habitat conditions.
- 25 • **Groundwater Substitution** methods provide water by not diverting a portion or all of
26 surface water used for irrigation and increasing groundwater pumping.
 - 27 ○ Water transfers developed by groundwater substitution methods are based upon the
28 amount of surface water not diverted minus a streamflow depletion factor. The
29 streamflow depletion factor reflects the volume of water that moves from the surface
30 water into the aquifer when the groundwater elevation is lower than the surface water
31 elevation. The streamflow depletion factor is determined annually by DWR and
32 Reclamation based upon annual hydrologic conditions and published in the annual *Water*
33 *Transfer White Paper*.
 - 34 ○ Water transfers based on groundwater substitution generally provide water in the spring
35 and summer months during the irrigation season. However, the farmers must decide
36 whether to initiate groundwater pumping or divert surface water early in the spring prior
37 to irrigation.
 - 38 ○ Water transfers based on groundwater substitution methods generally do not change the
39 total amount of cultivated or irrigated acreage. The surface water supplies are replaced
40 with groundwater supplies.
 - 41 ○ Groundwater substitution methods could result in potential changes in air quality,
42 biological resources, and groundwater resources. The (Long-Term Water Transfer
43 EIS/EIR) (Reclamation and SLDMWA 2015) determined that potential impacts due to
44 groundwater substitution methods included: (a) increased use of air quality and

1 greenhouse gas emissions if diesel engines were used to a greater extent or duration of
 2 time to power groundwater pumps; (b) loss of water in shallow wetlands habitat
 3 (especially for snakes, turtles, and birds) due to reduced shallow groundwater elevations
 4 and ponded water at the soil surface; and (c) reduced groundwater elevations. Mitigation
 5 measures that were presented in the cited environmental document included mandated
 6 use of electricity to power groundwater pumps; maintenance of a minimum amount of
 7 water in wetlands; and implementation of monitoring and mitigation plans to assess
 8 groundwater conditions during and following the water transfer.

- 9 • **Reservoir Storage Release, or Reservoir Re-operation** methods provide water by changing
 10 storage and flow release patterns from reservoirs. Generally, reservoir re-operation is
 11 implemented in coordination with another method to make the transferred water available.
 - 12 ○ Water transfers developed by reservoir re-operation methods are generally made
 13 available by an entity that reduces surface water diversions (e.g. water conservation or
 14 groundwater substitution), and the volume of surface water not diverted would be
 15 maintained in an upstream reservoir to be released at a different time than would have
 16 been needed for the water transferor.
 - 17 ○ Water transfers based on reservoir-reoperation methods would not result in changes in
 18 cultivated acreage unless the water transfer method also included crop idling. Crop idling
 19 would result in changes to irrigated acreage during the growing season each year that the
 20 water transfer method was implemented.
 - 21 ○ Reservoir re-operation methods could result in multi-purpose benefits, such as improved
 22 stream flows during specified times of the year as well as for the user of the transferred
 23 water.
 - 24 ○ Reservoir re-operation methods could reduce the ability to refill the reservoir in late fall
 25 and winter months if the transferred water is stored and not released until the following
 26 spring. Reservoir re-operation methods also would change stream flow patterns
 27 downstream of the reservoir. The Long-Term Water Transfer EIS/EIR (Reclamation and
 28 SLDMWA 2015) determined that potential changes due to reservoir re-operation would
 29 be within normal operational ranges of the reservoirs and the streams downstream of the
 30 reservoirs, and the potential changes would be less than significant.

31 **4.1.1 Construction Activities and Water Transfers**

32 Construction activities that related to water transfer actions could occur in the geographical area that
 33 provides the transferred water or in the geographical area that uses the transferred water. The feasibility of
 34 construction activities is dependent upon the long-term reliability of the transferred water method which
 35 is related to the duration of the water transfer. The need for construction activities also could be related to
 36 the use of the transferred water.

37 **4.1.1.1 Multi-year Water Transfers**

38 Multi-year water transfers may include construction of new facilities to make the transferred water
 39 available (e.g., drip irrigation systems or wells for groundwater substitution methods), or facilities to
 40 convey or store the transferred water by the water transferor or user. Multi-year water transfers,
 41 depending upon the duration of the water transfer, also could result in community growth which would
 42 result in associated construction.

43 Decisions to construct new facilities are generally dependent upon availability of time to plan, design, and
 44 construct the facilities within the duration of the water transfer, and economic decisions that consider time
 45 to recover costs over the life of the operations of the facilities which may be dependent upon the duration

1 of the water transfer. Construction of new facilities would need to be evaluated in CEQA and NEPA
2 documents either as separate projects or as part of the multi-year water transfers.

3 4.1.1.2 Single-year Water Transfers

4 Single-year water transfers are developed on an annual basis, including determination of specific methods
5 to provide the water for transfer, parcels that would participate in the water transfer, and volume of water
6 to be made available. These decisions for the water transfer proposal to the regulatory agencies are
7 generally made by March or April when the demand for water transfers and available capacity at the SWP
8 and CVP facilities are determined. The water transfer proposals need to be approved by April or May so
9 that farmers can make decisions related to changes in crop idling or shifting or groundwater substitution.
10 This stringent time schedule does not provide adequate time to construct facilities prior to the water
11 transfers.

12 Single-year water transfers do not provide long-term water supply reliability because the availability of
13 the water supply or water conveyance capacity generally varies each year. Therefore, users cannot rely
14 upon single-year water transfers to provide water for community growth. Historically, single-year water
15 transfers have been used to increase stored water in local reservoirs and groundwater banks during wet
16 years and provide irrigation water to reduce the use of groundwater by agricultural water users (DWR and
17 SWRCB 2015a, 2015b).

18 Therefore, single-year water transfers historically have not included construction activities (Reclamation
19 and SLDMWA 2014). When new facilities are constructed to manage or use water provided through
20 multi-year or multiple single-year water transfers, those facilities have been evaluated in separate CEQA
21 and NEPA documents.

22 4.2 Approvals of Water Transfers

23 The SWRCB, DWR, and Reclamation are required to review many of the water transfers in California
24 depending upon the type of water rights held by the party transferring the water, methods used to convey
25 the transferred water, and duration of the water transfer. As discussed in this section, many of the water
26 transfers are required to complete CEQA and NEPA analyses, including multi-year water transfer
27 approved by the SWRCB, DWR, and/or Reclamation; single-year water transfers approved by
28 Reclamation; and single-year water transfers approved by DWR but not by the SWRCB. Many of the
29 water transfers are evaluated in accordance with requirements that the water transfers would not result in
30 injury of other legal water users or adverse effects to fish and wildlife. Evaluation of water transfers that
31 rely upon SWP conveyance facilities or are approved by Reclamation must consider the economic effects
32 on the geographical areas of the water transferors.

33 4.2.1 State Water Resources Control Board Water Transfer Process

34 The SWRCB processes to review and issue determinations for water transfers are based upon the type of
35 water right held by the transferor, duration of the water transfer, and use of conveyance capacity in
36 facilities owned by a State, local, or regional governmental agency.

37 4.2.1.1 Overview of Water Rights Types Considered for Water Transfers

38 The SWRCB recognizes both riparian and appropriative water rights. As described in Chapter 3 of the
39 Delta Plan, riparian water rights are granted to landowners for properties that are adjacent to a natural
40 water course and are entitled to make reasonable use of water on or flowing past their properties (Council
41 2013b; DWR and SWRCB 2015a).

42 Appropriative water rights typically provide water on non-riparian lands that are not adjacent to water
43 bodies, or the water user needs to store water for later use (DWR and SWRCB 2015a). The appropriative
44 rights are allocated under a first in time and first in right priority system, and the priorities of

1 appropriative rights are based on the dates when the water rights are first used to support beneficial uses.
2 If the appropriative water rights are not fully used within a specified time period, the water rights can be
3 reduced. California law recognizes water conservation as a reasonable beneficial use so that water
4 efficiency improvements cannot be used as a reason to reduce appropriative rights held by a water user
5 (Water Code section 1011(a)) (DWR and SWRCB 2015a). Appropriative water rights also can be
6 dedicated for instream purposes under Water Code section 1707 without the water rights holders
7 forfeiting the protection of historic beneficial uses and/or historic stream flows.

8 Under appropriative water rights established prior to 1914 (known as pre-1914 water rights), water rights
9 holders can change the purpose of use, place of use, and/or point of diversion without notifying the
10 SWRCB. However, the changes may not cause injury to other legal users of water (Water Code section
11 1706).

12 Under appropriative water rights established post-1914, potential water users are required to submit a
13 water rights application to the SWRCB for review and issuance of a permit before water can be diverted
14 (DWR and SWRCB 2015a). The permit includes a quantity and timing of water diversion for direct use or
15 storage, authorized place of use, purpose of use, and any special conditions, such as minimum remaining
16 stream flows downstream of the diversion.

17 4.2.1.2 State Water Resources Control Board Process for Water Transfers

18 Under most California water rights, water transfers specifically may not cause injury to any legal user of
19 water or unreasonably affect fish and wildlife (DWR and SWRCB 2015b). In addition, transferring
20 parties wishing to use conveyance infrastructure owned by State, local, or regional agencies must
21 generally show that their transfers would not unreasonably affect the overall economy or the environment
22 of the county from which the water is transferred.

23 *Water Transfers of Riparian Water Rights*

24 Riparian water rights cannot be transferred for use on non-riparian land. However, riparian water rights
25 can be transferred through agreements by the water right holders to not divert water in order to increase
26 instream flows and related downstream water supplies to other riparian water rights holders (Water Code
27 section 1707). Riparian water rights also can be included in petitions to the SWRCB for changes to
28 preserve or enhance wetlands habitat, fish and wildlife resources, or recreation in or on the water. The
29 petitions must specify the timing, location, and extent of the changes; and describe why the changes
30 would not unreasonably affect any legal user of water. These types of water transfers require SWRCB
31 approval (Council 2013b; DWR and SWRCB 2015a).

32 *Water Transfers of Pre-1914 Appropriative Water Rights*

33 Pre-1914 appropriative water rights holders can change the purpose of use, place of use, and/or point of
34 diversion without notifying the SWRCB. The water transfers may not injure other legal users of water
35 (Water Code section 1706) (DWR and SWRCB 2015a). Depending upon the water agencies involved in
36 the water transfers, the local agencies may be required to complete separate CEQA documentation to
37 inform their governing bodies' decisions about the water transfers. However, the results of the CEQA
38 documentation by the local agencies are not required to be submitted to the SWRCB.

39 *Water Transfers of Post-1914 Appropriative Water Rights*

40 Post-1914 appropriative water rights holders may change the purpose of use, place of use, and/or point of
41 diversion of the water right by filing a petition with the SWRCB and notifying DFW (Water Code section
42 1703) (DWR and SWRCB 2015a). The water transfers may not injure any legal user of water (Water
43 Code section 1702).

44 For multi-year water transfers, the post-1914 water rights transferors must submit petitions to the
45 SWRCB and notify DFW of the potential change (DWR and SWRCB 2015a, 2015b). The petitions must

1 be accompanied by CEQA documents that analyze potential environmental changes related to
 2 implementation of the water transfers. The SWRCB publishes public notifications of the petitions. The
 3 petitioners and the protestants are to make good faith efforts to resolve the protests (generally within 180
 4 days) (Water Code section 1703). If protests are filed, the SWRCB is required to hold hearings; however,
 5 hearings are not required if no protests are filed for a petition (Water Code section 1704) . The SWRCB
 6 must issue determination that a water transfer would not result in substantial injury to any legal user of
 7 water and would not unreasonably affect fish, wildlife, or other instream beneficial uses before approving
 8 the water transfer (Water Code section 1736).

9 For single-year water transfers, the post-1914 water rights transferors must submit petitions to the
 10 SWRCB and notify DFW (DWR and SWRCB 2015a, 2015b). The petitions do not need to be
 11 accompanied by CEQA documents (Water Code section 1729). For single-year water transfers, the
 12 SWRCB is required to expedite the review process of the petitions by initiating the investigations and
 13 notifying the public within 10 days of receipt of the petitions (Water Code section 1726). Public
 14 comments are required within 30 days of publication of the notices. The SWRCB must issue
 15 determinations, within 35 days of initiating the investigations or publication of the notices, whichever is
 16 later, that the water transfers would not injure any legal user of water; and would not unreasonably affect
 17 fish, wildlife, or other instream beneficial uses (Water Code section 1725).

18 **4.2.2 Department of Water Resources Process for Water Transfers Under Water** 19 **Code Section 1810**

20 For water transfer under riparian water rights and pre-1914 and post-1914 appropriative water rights,
 21 Water Code section 1810 *et seq.* requires State, local, and regional agencies to allow use of their
 22 conveyance facilities for water transfers if: (a) there is available unused capacity ; (b) fair compensation is
 23 provided by the water transferors; (c) the water transfer would not injure any other legal user of water; (d)
 24 the water transfer would not unreasonably affect fish, wildlife, or other instream beneficial uses; and (e)
 25 the water transfer would not unreasonably affect the overall county-wide economy or environment of the
 26 county from which the water is transferred (DWR and SWRCB 2015a). Water transfers also may not
 27 result in diminution of beneficial uses or water quality in the conveyance facility. Under this provision of
 28 the Water Code, all water transfers that use the SWP facilities must be approved by DWR. For water
 29 transfers that also require SWRCB approval, the submittals to the SWRCB are also reviewed by DWR.
 30 For water transfers that do not require SWRCB approval, DWR may require additional analysis.

31 **4.2.3 Department of Water Resources and Bureau of Reclamation Processes for** 32 **Cross-Delta Water Transfers**

33 DWR and Reclamation generally coordinate the reviews of water transfer proposals that involve cross-
 34 Delta water transfers using SWP and/or CVP facilities. DWR and Reclamation have a cooperative
 35 responsibility under the Coordinated Operations Agreement to maintain specific water flows and/or water
 36 quality in portions of the Delta and the Delta watershed in accordance with the SWRCB water rights
 37 orders and decisions and the USFWS and NMFS biological opinions.

38 As described above, DWR must review all water transfer proposals involving SWP water conveyance
 39 facilities in accordance with Water Code section 1810. DWR also must review all water transfers
 40 involving SWP water contracts or SWP water supplies.

41 Reclamation must approve all water transfers involving CVP water contracts and/or CVP water
 42 conveyance facilities. In accordance with the Central Valley Project Improvement Act of 1992,
 43 Reclamation will not approve water transfers that result in: (a) a significant adverse effect on the ability to
 44 deliver CVP contractual obligations or fish and wildlife obligations due to limited conveyance and
 45 pumping capacity; (b) a significant long-term adverse impact on groundwater conditions in the
 46 transferor's service area; (c) an unreasonable impact on water supply operations, or financial conditions

1 of the transferor's entity or water users; and (d) a significant reduction in the quantity or decrease the
 2 quality of water supplies used for fish and wildlife purposes unless the Secretary of the Interior
 3 determines that the adverse effect would be more than offset by benefits of the transfer (Public Law 102-
 4 575, Title 34, section 3405(a)). Only water provided through the reduction of consumptive use or reversal
 5 of loss of runoff that has historically been irretrievably lost can be considered for water transfer in the
 6 Reclamation approval process. Reclamation must complete NEPA and CEQA documents and consult
 7 with the USFWS and NMFS under the ESA Section 10 prior to approval of single-year and multi-year
 8 water transfers. The USFWS and NMFS must determine if the water transfers are consistent with the
 9 existing biological opinions, and the proposed water transfers would not be likely to jeopardize the
 10 continued existence of endangered or threatened species or result in the destruction or adverse
 11 modification of their critical habitats [16 U.S. Code section 1536 (a)(2)]. Reclamation also requires water
 12 transfer applicants to submit CEQA documentation if required by the State or local agencies involved in
 13 the water transfer.

14 DWR and Reclamation are required to comply with water quality and flow criteria established by the
 15 SWRCB and agreements local Delta agencies. These criteria limit the total amount of water conveyed
 16 across the Delta by DWR and Reclamation during some periods of the year, and may include carriage
 17 water requirements. During some portions of the year, the carriage water criteria requires additional
 18 surface water from the SWP or CVP reservoirs or from water transfer volume to be released into the Delta
 19 to maintain Delta outflow and/or Delta water quality criteria when the SWP and CVP Delta export
 20 facilities are operated.

21 DWR and Reclamation are also required to comply with the 2008 USFWS and 2009 NMFS biological
 22 opinions criteria for all water conveyed through the SWP and CVP Delta facilities, including water
 23 transfers. The biological opinions address effects under ESA related to conveyance of cross-Delta water
 24 transfers from July through September and limit the total amount of water transferred through SWP and
 25 CVP facilities as shown below (Reclamation 2008; USFWS 2008; NMFS 2009).

Water Year Classification	Maximum Water Transfer Amount through SWP and CVP Delta Facilities
Critical Year	Up to 600,000 acre-feet/year
Dry Year following a Critical Year	Up to 600,000 acre-feet/year
Dry Year following a Dry Year	Up to 600,000 acre-feet/year
All Other Water Years	Up to 360,000 acre-feet/year

26

27 If a water transfer proposal included conveyance during October through June or resulted in transferred
 28 water volumes greater than addressed in the 2008 USFWS and 2009 NMFS biological opinions, DWR
 29 and/or Reclamation would be required to obtain separate approvals from USFWS and NMFS under ESA
 30 Sections 7 or 10.

31 4.2.3.1 Department of Water Resources and Bureau of Reclamation Water Transfer White Paper 32 Requirements

33 Each year, DWR and Reclamation update the *Water Transfer White Paper*, which includes water transfer
 34 proposal application requirements, mitigation considerations, and methods to calculate new water
 35 (including evapo-transpiration of applied water by crop) and determine the minimum stream flow
 36 depletion factor. The current version, published in December 2015, includes the following requirements
 37 for water transfer proposals which are to be submitted by March 1 of each year (DWR and Reclamation
 38 2015).

- 1 • **Water Transfer Proposals Involving Crop Idling must include:**
- 2 ○ Identification of the surface water rights and historic surface water diversions.
- 3 ○ Identification of participating owners or growers.
- 4 ○ CEQA and NEPA documents, as required by DWR and/or Reclamation (as described
- 5 above).
- 6 ○ Location and historic crop patterns of lands to be idled, including crop acreage as
- 7 compared to total farmable acreage, irrigated and non-irrigated crop acreage. In 2015,
- 8 DWR and Reclamation will not approve:
- 9 ▪ Crop idling programs that would result in idling of more than 20 percent of the
- 10 affected crop acreage in the county unless the water transferor holds a public
- 11 hearing in accordance with Water Code section 1745.05(b).
- 12 ▪ Water transfers based upon use of mechanical methods to replace use of water
- 13 for rice straw decomposition.
- 14 ▪ Water transfers based on crop idling of pasture, mixed or miscellaneous grasses,
- 15 alfalfa outside the Sacramento Valley floor, orchards, or vineyards.
- 16 ○ Location of historic acreage idled or fallowed each year, and reasons for not cultivating.
- 17 Lands idled for other purposes, such as normal crop rotation, are not eligible for water
- 18 transfer programs.
- 19 ○ Identification of areas adjacent to wildlife refuges or managed wildlife habitat.
- 20 ○ Description of mitigation measures if idled crop acreage provides habitat for Giant Garter
- 21 Snake and other terrestrial species. Mitigation measures are anticipated by DWR and
- 22 Reclamation to be similar to those presented in the 2014 *Revised Environmental*
- 23 *Assessment/Initial Study, 2014 San Luis & Delta-Mendota Water Authority Water*
- 24 *Transfers* document (Reclamation and SLDMWA 2014) and the Long-Term Water
- 25 Transfer EIS/EIR (Reclamation and SLDMWA 2015), including the following mitigation
- 26 measures:
- 27 ▪ Identify movement corridors for aquatic species (such as Western Pond Turtle
- 28 and Giant Garter Snake), including major irrigation and drainage canals. The
- 29 water transferor would maintain adequate water in major irrigation and drainage
- 30 canals. Canal water depths should be maintained at levels similar to years when
- 31 transfers do not occur or, where information on existing water depths is limited,
- 32 at least two feet of water would be considered sufficient
- 33 ▪ For water transferors proposing water transfers made available from idled rice
- 34 fields, ensure that adequate water is available for priority habitat with a high
- 35 likelihood of Giant Garter Snake occurrence. The determination of priority
- 36 habitat would be made through coordination with Giant Garter Snake experts,
- 37 Geographic Information System (GIS) analysis of proximity to historic tule
- 38 marsh, and GIS analysis of suitable habitat. The priority habitat areas would be
- 39 indicated on the priority habitat maps for participating water agencies and would
- 40 be maintained by DWR and Reclamation. As new information becomes
- 41 available, these maps would be updated in coordination with USFWS and DFW.
- 42 In addition to mapped priority habitat, fields abutting or immediately adjacent to
- 43 federal wildlife refuges would be considered as priority habitat.

- 1 ▪ Develop maps of priority habitat known to be occupied by Giant Garter Snake
2 and priority habitats with a high likelihood for Giant Garter Snake occurrence
3 (e.g., 60 percent or greater probability) would not be permitted to participate in
4 cropland idling/shifting transfers. Water transferors can request a case-by-case
5 evaluation of whether a specific field would be precluded from participating in
6 multi-year water transfers. These areas include lands adjacent to naturalized
7 lands and refuges and corridors between these naturalized lands and refuges.
- 8 ▪ For users of transferred water, implement Giant Garter Snake best management
9 practices, including educating maintenance personnel to recognize and avoid
10 contact with Giant Garter Snake, dredging only one side of a conveyance channel
11 per year, and implementing other measures to enhance habitat for Giant Garter
12 Snake. Implementation of best management practices would be documented and
13 included in the annual monitoring report.
- 14 ▪ Minimize cropland idling acreage near known wintering areas that support high
15 concentrations of waterfowl and shorebirds, such as wildlife refuges and
16 established wildlife areas.
- 17 ○ Maintenance and Monitoring Proposal for idled acreage, including plans for remnant
18 vegetation, methods to prevent seepage, vegetation controls, and conservation easements
19 or similar requirements.
- 20 • **Water Transfer Proposals Involving Groundwater Substitution must include:**
- 21 ○ Identification of surface water sources and associated water rights that would be replaced
22 by groundwater substitution.
- 23 ▪ In 2015, DWR and Reclamation will not approve water transfers based upon use
24 of groundwater substitution to replace surface water used for rice straw
25 decomposition.
- 26 ○ CEQA and NEPA documents, as required by DWR and/or Reclamation (as described
27 above).
- 28 ○ Location and construction details of wells involved in the program, and documentation of
29 operating flow meters on each well, including schedule and volume of water to be
30 pumped, basis for monitoring program, and historic operations.
- 31 ○ Technical analysis to support using a streamflow depletion factor different than suggested
32 by DWR and Reclamation in the current *Water Transfer White Paper*.
- 33 ○ Documentation of compliance with local and regional groundwater management plans
34 and ordinances.
- 35 ○ Verification of the use of electric-powered groundwater pumps for each well, or
36 verification of compliance with California Air Resources Board or local Air Pollution
37 Control District regulations for diesel or natural gas-powered groundwater pumps.
- 38 ○ Monitoring Program including use of instantaneous flow meter readings, groundwater
39 elevation measurements, groundwater quality monitoring at least monthly, subsidence
40 monitoring method, and data evaluation and reporting methods.
- 41 ○ Subsidence monitoring as described in the Long-Term Water Transfer EIS/EIR
42 (Reclamation and SLDMWA 2015), including the following mitigation measures:

- 1 ▪ Measurement of Changes in Groundwater Elevations: Water transferors would
2 collect measurements of groundwater levels in both participating transfer wells
3 and monitoring wells. Groundwater level monitoring would include
4 measurements before, during, and after the transfer period as follows:
- 5 • Prior to transfer: Groundwater levels would be measured monthly from
6 March in the year of the proposed transfer until the start of the transfer
7 (where possible).
- 8 • During the transfer: Groundwater levels would be measured on the same
9 day that the transfer begins, prior to the pump being turned on.
10 Groundwater levels would be measured throughout the transfer period.
- 11 • Following the transfer: Groundwater levels would be measured weekly
12 for one month after the end of transfer pumping, after which groundwater
13 levels would be measured monthly through March of the year following
14 the transfer.
- 15 ▪ Subsidence monitoring would be required if groundwater levels could decline
16 below historic low levels during the proposed water transfer. If the measured
17 groundwater level falls below the historic low level, land surface elevation
18 measurements in strategic locations within and/or near the transfer area would be
19 required. Measurements may include (a) extensometer monitoring, (b)
20 continuous Global Positioning System (GPS) monitoring, or (c) extensive land-
21 elevation benchmark surveys conducted by a licensed surveyor. This data could
22 be collected by the water transferor or compiled from other sources (such as
23 public extensometer data). Measurements must be completed on a monthly basis
24 during the water transfer period. If the land surface elevation survey indicates an
25 elevation decrease between 0.1 foot and 0.2 foot from the initial measurement,
26 the water transferor would need to initiate steps identified in the Mitigation Plan.
27 The water transferor would work with DWR and Reclamation to assess the
28 accuracy of the survey measurements based on current limitations of technology,
29 professional engineering/surveying judgment, and any other data available in or
30 near the transferring area.
- 31 ▪ A subsidence mitigation plan must be developed and implemented when
32 monitoring efforts indicate that the operation of wells for groundwater
33 substitution pumping are causing substantial adverse impacts. Mitigation actions
34 could include:
- 35 • Curtailment of pumping until natural recharge corrects the issue.
- 36 • Lowering of pumping bowls (including the possibility of drilling deeper
37 wells) in non-transferring wells affected by transfer pumping.
- 38 • Reimbursement for significant increases in pumping costs due to the
39 additional groundwater pumping to support the transfer.
- 40 • Curtailment of pumping until water levels rise above historic low
41 elevations if non-reversible subsidence is detected (based on local data to
42 identify elastic versus inelastic subsidence).
- 43 • Reimbursement for modifications to infrastructure that may be affected
44 by non-reversible subsidence.

- 1 • Other appropriate actions as determined by DWR and/or Reclamation.
- 2 ○ Mitigation Plan that includes procedures to report information to DWR and/or
- 3 Reclamation, investigative procedures for claims and adverse data, mitigation options,
- 4 and assurance of adequate financial resources for anticipated mitigation needs. Mitigation
- 5 measures could include reductions in groundwater pumping until natural recharge occurs,
- 6 extension of groundwater wells, or reimbursement for additional groundwater pumping
- 7 costs.
- 8 • **Water Transfer Proposals Involving Reservoir Re-operation must include:**
- 9 ○ Identification of surface water sources and associated water rights involved in the water
- 10 transfer, and proposed schedule and volume of transferred water to be released.
- 11 ○ CEQA and NEPA documents, as required by DWR and/or Reclamation (as described
- 12 above).
- 13 ○ At least 5 years of reservoir operating data related to storage and releases, allowable
- 14 conservation storage volume, Flood Control Diagram for the reservoir, if applicable, and
- 15 Reservoir Area-Capacity curve, if available.
- 16 ○ Identification of instream flow requirements for all downstream river segments, and other
- 17 regulatory or operational obligations affecting the reservoir operations.
- 18 ○ Forecasted reservoir operations for the year with the water transfer, including projected
- 19 inflows and end-of-season target storage.
- 20 ○ Historic demands and forecasted water supply demands supplied by the affected reservoir
- 21 for the year with the water transfer.
- 22 ○ Location, type, and ownership of stream flow measurement devices.
- 23 ○ Refill criteria to avoid injury to other legal water users, including the SWP and CVP.
- 24 Typically, reservoirs cannot be refilled unless downstream reservoirs are full or surface
- 25 water is required to be released in accordance with flood control operations, or the Delta
- 26 is in excess conditions which occurs when there is sufficient inflow to the Delta to meet
- 27 all beneficial needs (except SWP and CVP water contract demands) and the SWP and
- 28 CVP do not need to make supporting releases from upstream reservoirs in the
- 29 Sacramento River watershed.

30 4.3 Recent Cross-Delta Water Transfers

31 Intra-basin water transfers have occurred within the Sacramento and San Joaquin valleys for many years.

32 However, inter-basin cross-Delta water transfers between the Sacramento and San Joaquin valleys

33 generally started in 2001 as water transfer provisions in the federal Central Valley Project Improvement

34 Act and SWP Monterey Agreement were implemented. Between 2001 and 2015, short-term and multi-

35 year cross-Delta water transfers that use SWP and CVP facilities occurred in every year except 2006 and

36 2011 which were wet water year types (DWR and SWRCB 2015a). In years with cross-Delta water

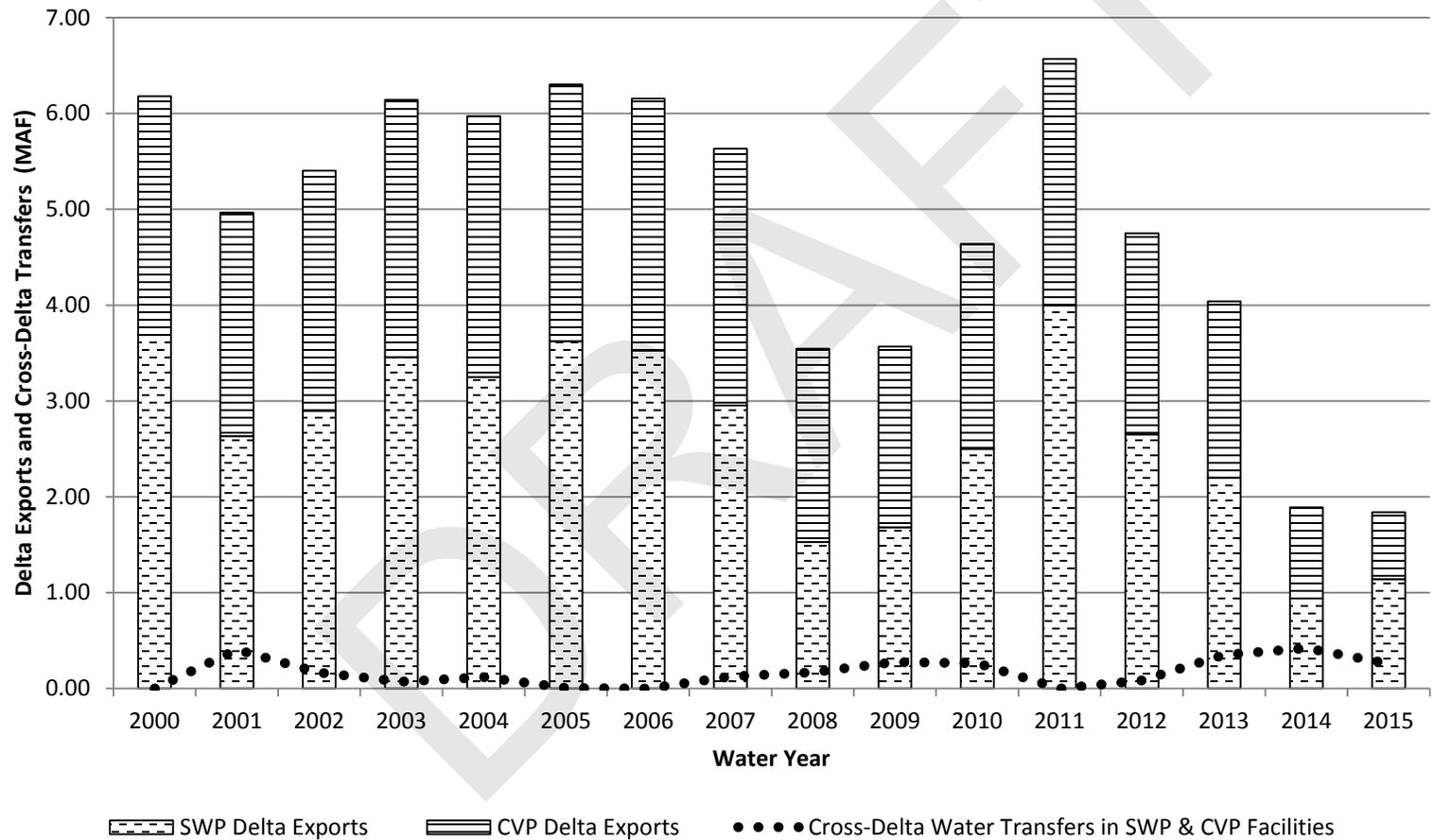
37 transfers, the volume of transferred water ranged from approximately 6,000 to 415,000 acre-feet. As

38 shown in Figures 1 and 2, cross-Delta water transfers using SWP and CVP facilities in this time period

39 were minimal as compared to total Delta exports and Delta inflows (e.g., 0 to 7 percent of the total Delta

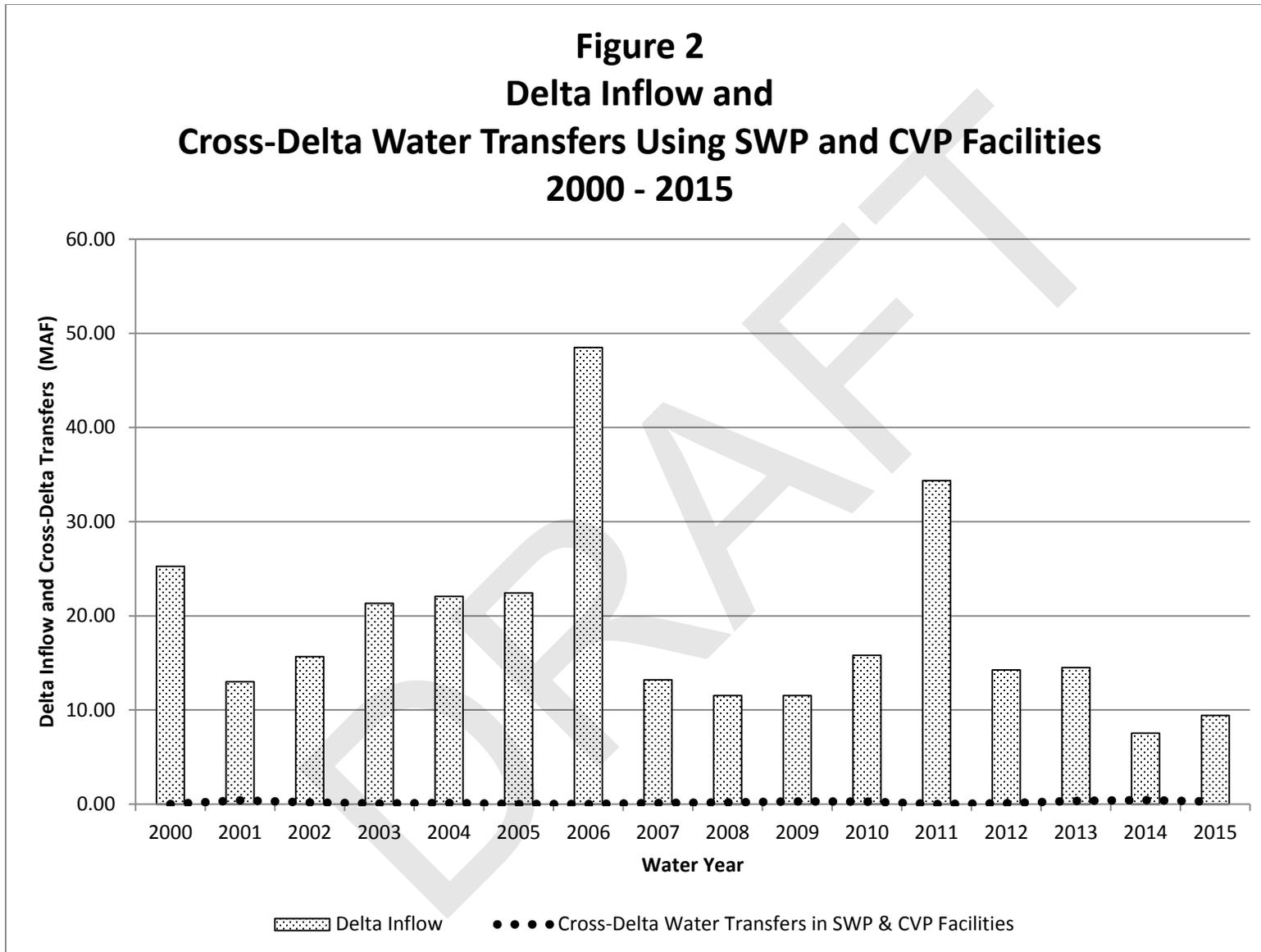
40 exports (Figure 1) and 0 to 6 percent of total Delta inflows (Figure 2)).

Figure 1
SWP and CVP Delta Exports and
Cross-Delta Water Transfers Using SWP and CVP Facilities
2000 - 2015



Source: DWR 2013, 2016

**Figure 2
Delta Inflow and
Cross-Delta Water Transfers Using SWP and CVP Facilities
2000 - 2015**



Source: DWR 2013, 2016

1 Specific sources of the water transfers have not been compiled in an uniform manner to determine
 2 methods used for all water transfers. However, DWR reported that use of groundwater substitution in the
 3 Sacramento Valley to provide transferred water between 2001 and 2013 ranged from 2 to 5 percent of the
 4 total groundwater pumping (DWR 2013, 2015). As indicated in these DWR reports, groundwater
 5 substitution was only used in 6 years between 2001 and 2013.

6 5 Environmental Checklist for Addendum to 7 the Delta Plan Programmatic EIR

8 The purpose of this checklist is to evaluate the Proposed Project (see Section 2, *Project Description*, of
 9 this addendum) in order to determine, for each environmental resource area, whether the proposed
 10 amendments to 23 CCR section 5001(dd)(3) of the Delta Plan Regulations and WR R15, changes in
 11 circumstances, or new information of substantial importance would result in new or substantially more
 12 severe environmental impacts than described within the Delta Plan PEIR, and would require major
 13 revisions to the Delta Plan PEIR (CEQA Guidelines Section 15162). A “no” response included in the
 14 checklist means that there are no substantial changes in the conditions or the status of the impact as
 15 described in the Delta Plan PEIR.

16 The potential changes in environmental impacts due to the Proposed Project are compared to existing
 17 conditions which, pursuant to 23 CCR section 5001(dd)(3), are that the Council is not currently requiring
 18 certifications of consistency with the Delta Plan for single-year water transfers. The resource categories
 19 are organized in the same manner as in the Delta Plan PEIR, and the evaluation is based upon the
 20 guidance provided in Public Resources Code section 21166 and CEQA Guidelines 15162 and 15163 for
 21 consideration of the need to prepare a subsequent or supplemental EIR. As stated in the Public Resources
 22 Code and the CEQA Guidelines, following certification of an EIR, no subsequent or supplemental EIR
 23 shall be prepared unless the lead agency determines, based upon substantial evidence in the whole record,
 24 that none of the following would occur.

- 25 • *Substantial changes are proposed in the project which will require major revisions of the*
 26 *previous EIR .. due to the involvement of new significant environmental effects or a*
 27 *substantial increase in the severity of previously identified significant effects;*
- 28 • *Substantial changes occur with respect to the circumstances under which the project is*
 29 *undertaken which will require major revisions of the previous EIR ... due to the involvement*
 30 *of new significant environmental effects or a substantial increase in the severity of previously*
 31 *identified significant effects; or*
- 32 • *New information of substantial importance, which was not known and could not have been*
 33 *known with the exercise of reasonable diligence at the time the previous EIR was certified as*
 34 *complete ... , shows any of the following:*
 - 35 ○ *The project will have one or more significant effects not discussed in the previous EIR;*
 - 36 ○ *Significant effects previously examined will be substantially more severe than shown in*
 37 *the previous EIR;*
 - 38 ○ *Mitigation measures or alternatives previously found not to be feasible would in fact be*
 39 *feasible, and would substantially reduce one or more significant effects of the project, but*
 40 *the project proponents decline to adopt the mitigation measure or alternative; or*
 - 41 ○ *Mitigation measures or alternatives which are considerably different from those analyzed*
 42 *in the previous EIR would substantially reduce one or more significant effects on the*
 43 *environment, but the project proponents decline to adopt the mitigation measure or*
 44 *alternative.*

45 (CEQA Guidelines 15162(a))

1 Therefore, the environmental checklist in this addendum addresses the foregoing questions for the
2 Proposed Project compared to the conclusions in the Delta Plan PEIR.

3 5.1 Consideration of Results of Similar Programmatic 4 Analyses of Water Transfers

5 Like the Delta Plan PEIR, this analysis is based in part on CEQA and NEPA analyses of recent single-
6 year and multi-year water transfers and considers relevant conclusions reached in those CEQA and NEPA
7 documents in forming the conclusions below. The following documents were reviewed in the preparation
8 of this environmental document.

- 9 • *Environmental Assessment/Initial Study, 2014 San Luis & Delta-Mendota Water Authority*
10 *Water Transfers*, (Reclamation and SLDMWA 2014).
 - 11 ○ The EA/IS analyzes single-year water transfers of up to 175,226 acre-feet from portions
12 of the Sacramento and San Joaquin valleys to the San Francisco Bay Area and San
13 Joaquin Valley in 2014. A combination of crop idling, crop shifting, and groundwater
14 substitution methods were assumed to be available to provide the transferred water.
- 15 • *Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report,*
16 *Final* (Reclamation and SLDMWA 2015).
 - 17 ○ The Long-Term Water Transfer EIS/EIR analyzes multi-year water transfers of up to
18 511,094 acre-feet/year from the Sacramento Valley to the San Francisco Bay Area and
19 San Joaquin Valley between 2015 through 2024. A combination of crop idling, crop
20 shifting, groundwater substitution, reservoir re-operation, and water conservation
21 methods were assumed to be available to provide the transferred water.

22 The Long-Term Water Transfer EIS/EIR assumed a range of methods to provide the transferred water
23 each year. The analysis assumed approximately 35 percent of the transferred water would be provided by
24 crop idling or crop shifting, more than 60 percent would be provided by groundwater substitution, and
25 less than 5 percent would be provided by reservoir re-operation and water conservation. These CEQA and
26 NEPA documents concluded that all changes would be beneficial or result in a less than significant
27 impact. A potentially significant impact to water supplies, groundwater, air quality and land use in areas
28 that would provide the transferred water would be less than significant with implementation of mitigation
29 measures. As discussed in Section 4.2.3.1, *Department of Water Resources and Bureau of Reclamation*
30 *Water Transfer White Paper Requirements*, in this addendum, many of these mitigation measures
31 included in the Long-Term Water Transfer EIS/EIR were incorporated into the DWR and Reclamation
32 requirements for future water transfers (DWR and Reclamation 2015).

33 5.2 Water Resources

34 The results of the water resources impact analysis were presented in Chapter 3 of the Delta Plan PEIR
35 (Council 2013a).

36

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 3-1: Violate any water quality standards or waste discharge requirements or substantially degrade water quality?	No	No	No
Impact 3-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge?	No	No	No
Impact 3-3: Substantially change water supply availability to water users that use Delta water?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 As described in Section 3, *Project History*, of this addendum, information related to single-year water
 9 transfers was compiled and analyzed by DWR and SWRCB, and reported at the September 24, 2015
 10 Council meeting. The information indicated that single-year water transfers primarily occurred in drier
 11 years (e.g., 2014 and 2015) because the demand was greater and cross-Delta conveyance capacity for
 12 such water transfers was available. At the same Council meeting, information was presented by others
 13 that summarized reductions in observed stream flow and concurrent increased groundwater pumping in
 14 the Sacramento Valley. This and other new information compiled by DWR, SWRCB, and Reclamation
 15 was considered during preparation of this addendum.

16 **Impact 3-1:** In accordance with CEQA, the Council considered information concerning whether water
 17 transfers could cause changes of stream flow patterns upstream of the Delta and in the Delta that could
 18 cause significant adverse changes in water temperatures or constituent concentrations (e.g., salinity).
 19 Based upon information in the Delta Plan PEIR, information presented at Council meetings in 2015, and
 20 results from recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015)
 21 as described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water*
 22 *Transfers*, of this addendum, single-year water transfers would not result in new or substantially more
 23 severe significant adverse impacts on water quality.

24 As a result of reservoir re-operation methods to provide transferred water, surface water elevations in the
 25 reservoirs would become higher in some months if the transferred water were being stored for release
 26 later in the year or during the next water year. However, the reservoirs would continue to be operated
 27 within the surface water elevation criteria established for flood management and drought conditions.
 28 Reservoir water temperatures would continue to occur within the historic ranges of water temperatures.
 29 Stream flow releases from the reservoirs also would occur within historic operational ranges. Therefore,

1 single-year water transfers would not substantially change water quality at reservoirs involved in reservoir
2 re-operation methods for water transfers or in the streams located downstream of the reservoirs.

3 Single-year water transfers that occur within the Delta would not result in new substantially more severe
4 significant adverse impacts on water quality in the Delta because most of the water transfers would be
5 required to comply with existing water quality criteria or not adversely affect existing beneficial uses
6 through water quality degradation. As described in Section 4, *Overview of Water Transfers*, of this
7 addendum, water transfers that use SWP and/or CVP conveyance facilities would be implemented to
8 comply with water quality criteria established by the SWRCB, 2008 USFWS biological opinion, and
9 2009 NMFS biological opinion. Single-year water transfers approved only by the SWRCB would be
10 implemented in a manner that does not result in injury to other legal water users, including protection of
11 water quality for adopted beneficial uses. The number of single-year water transfers that occur within the
12 Delta that do not need to analyze water quality conditions because they do not require approvals by the
13 SWRCB, DWR, or Reclamation would be minimal because most water transfers that occur within the
14 Delta require the use of SWP and/or CVP conveyance facilities. The single-year cross-Delta water
15 transfers that use SWP and/or CVP facilities would not result in new or substantially more severe
16 significant adverse impacts on water quality in the Delta because the total volume of transferred water
17 across the Delta (single-year and multi-year water transfers) is anticipated to continue to be a minor
18 amount of the water conveyed across the Delta for the SWP and CVP operations, as discussed in Section
19 4.3, *Recent Cross-Delta Water Transfers*, in this addendum. Therefore, effects due to single-year water
20 transfers on Delta water quality would be minimal, and continued exemption of single-year water
21 transfers from the covered action process would not be a change from existing conditions.

22 **Impact 3-2:** In accordance with CEQA, the Council considered information concerning whether water
23 transfers could cause significant adverse changes in groundwater conditions or interfere substantially with
24 groundwater recharge. Based upon information in the Delta Plan PEIR, information presented to the
25 Council, and results from recent water transfer CEQA and NEPA documents (Reclamation and
26 SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic*
27 *Analyses of Water Transfers*, of this addendum, single-year water transfers would not result in new or
28 substantially more severe significant adverse impacts on groundwater conditions.

29 As discussed in Section 4.3, *Recent Cross-Delta Water Transfers*, in this addendum, groundwater
30 substitution has been used for 6 of the 13 years between 2001 and 2013. In those 6 years, groundwater
31 substitution represented 5 percent or less of the total amount of groundwater pumped in the Sacramento
32 Valley (DWR 2013, 2015). As discussed in recent water transfer CEQA and NEPA documents (see
33 Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this
34 addendum), changes in local or basin-wide groundwater conditions due to water transfers were
35 determined to be less than significant with implementation of mitigation measures currently included in
36 approval criteria used by DWR and Reclamation (Reclamation and SLDMWA 2014, 2015). As described
37 in Section 4, *Overview of Water Transfers*, of this addendum, detailed analyses of potential groundwater
38 conditions and implementation of groundwater mitigation and monitoring plans if groundwater
39 substitution would be used for water transfers must be completed for water transfers that use SWP and/or
40 CVP conveyance facilities. Single-year water transfers approved only by the SWRCB would be
41 implemented in a manner that does not result in injury to other legal water users, including changes to
42 groundwater conditions, and also would require analysis of groundwater conditions if groundwater
43 substitution methods would be used. The number of single-year water transfers that occur within the Delta
44 that do not need to analyze groundwater conditions because they would not require approvals by the
45 SWRCB, DWR, or Reclamation would be minimal because most water transfers that occur within the
46 Delta would require use of SWP and CVP facilities. Therefore, effects due to single-year water transfers
47 on groundwater conditions in the Sacramento Valley or the Delta would be minimal and continued
48 exemption of single-year water transfers from the covered action process would not be a change from
49 existing conditions.

1 As discussed in recent water transfer CEQA and NEPA documents (see Section 5.1, *Consideration of*
2 *Results of Similar Programmatic Analyses of Water Transfers*, of this addendum), single-year water
3 transfers frequently cause beneficial changes in groundwater conditions in areas that use transferred
4 water. The transferred water is frequently used to reduce groundwater pumping or to recharge
5 groundwater aquifers.

6 **Impact 3-3:** In accordance with CEQA, the Council considered information concerning whether water
7 transfers could cause significant adverse changes in water supply availability. Based upon information in
8 the Delta Plan PEIR, information presented to the Council, and results from recent water transfer CEQA
9 and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
10 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
11 year water transfers would not result in new or substantially more severe significant adverse impacts on
12 surface water and groundwater supply availability.

13 The water transfer actions that occur within the Delta would not result in new or substantially more severe
14 significant adverse impacts on local Delta water supplies or SWP and CVP water supplies because most
15 of these transfers would require approvals under permitting processes that would not result in substantial
16 changes in water supplies for other users. The water transfer actions that use SWP and/or CVP
17 conveyance facilities may not adversely affect local Delta water supplies or SWP and CVP water
18 supplies, as discussed in Section 4, *Overview of Water Transfers*, of this addendum. In addition, the total
19 volume of transferred water (single-year and multi-year water transfers) that use SWP and/or CVP
20 facilities is anticipated to continue to be a minor amount of the water conveyed across the Delta for the
21 SWP and CVP operations, as discussed in Section 4.3, *Recent Cross-Delta Water Transfers*, in this
22 addendum. Single-year water transfers approved only by the SWRCB would be implemented in a manner
23 that does not result in injury to other legal water users. The number of single-year water transfers that
24 occur within the Delta that do not analyze water supply conditions because they would not require
25 approvals by the SWRCB, DWR, or Reclamation would be minimal because most water transfers that
26 occur within the Delta would require use of SWP and CVP facilities.

27 As discussed in recent water transfer CEQA and NEPA documents (see Section 5.1, *Consideration of*
28 *Results of Similar Programmatic Analyses of Water Transfers*, of this addendum), single-year water
29 transfers frequently cause beneficial changes in water supply conditions in areas that use transferred
30 water. The transferred water is frequently used to reduce groundwater pumping in areas with groundwater
31 overdraft or to recharge groundwater aquifers.

32 Therefore, adverse effects due to single-year water transfers on water supplies would not occur or would
33 be minimal, and continued exemption of single-year water transfers from the covered action process
34 would not be a change from existing conditions.

35 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
36 adverse impacts on water resources compared to the conclusions in the Delta Plan PEIR, because there
37 would be no change in existing conditions, and single-year water transfers would continue to be exempt
38 from the definition of a covered action.

39 5.3 Biological Resources

40 The results of the biological resources impact analysis were presented in Chapter 4 of the Delta Plan
41 PEIR (Council 2013a).

42

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 4-1: Result in substantial adverse effects on sensitive natural communities, including wetlands and riparian habitat?	No	No	No
Impact 4-2: Result in substantial adverse effects on special status species?	No	No	No
Impact 4-3: Result in substantial adverse effects on fish and wildlife species habitat?	No	No	No
Impact 4-4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors?	No	No	No
Impact 4-5: Conflict with any local policies or ordinances protecting biological resources or the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Protection Plan	No	No	No

1
2 The Proposed Project would continue to exempt single-year water transfers from the covered action
3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
7 covered action process.

8 **Impacts 4-1 through 4-5:** In accordance with CEQA, the Council considered information concerning
9 whether water transfers could cause significant adverse changes in biological resources upstream of the
10 Delta and in the Delta or in areas that use transferred water. Based upon information in the Delta Plan
11 PEIR, information presented to the Council, and results from recent water transfer CEQA and NEPA
12 documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of*
13 *Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-year water
14 transfers would not result in new or substantially more severe significant adverse impacts on biological
15 resources, including habitat associated with changes in cultivated lands used for crop idling methods,

1 habitat adjacent to areas used for groundwater substitution methods; habitat associated with reservoir
2 operations, and in-Delta habitat.

3 Single-year water transfers that occur within the Delta would not result in new or substantially more
4 severe significant adverse impacts on biological resources because most of the water transfers would be
5 required to avoid substantial adverse effects on biological resources. As described in Section 4, *Overview*
6 *of Water Transfers*, of this addendum, water transfers that use SWP and/or CVP conveyance facilities
7 must provide a detailed analysis of potential changes in cropping patterns and groundwater conditions.
8 For water transfers that include crop idling (including acreage reduction in rice fields, and areas adjacent
9 to wildlife refuges or managed wildlife habitat) or groundwater substitution, the water transfer proposals
10 would need to identify the acreage and biological resources associated with lands that provide the
11 transferred water. Mitigation measures would need to be identified and implemented if idled crop acreage
12 or lands associated with groundwater substitution provide habitat or are located adjacent to habitat for
13 Giant Garter Snake and other terrestrial species, as described in Section 4.2.3.1, *Department of Water*
14 *Resources and Bureau of Reclamation Water Transfer White Paper Requirements*, in this addendum.
15 Single-year water transfers approved only by the SWRCB would be implemented to not unreasonably
16 affect fish, wildlife, or other instream beneficial uses. The number of single-year water transfers that
17 occur within the Delta that do not need to analyze biological resources because they do not require
18 approvals by the SWRCB, DWR, or Reclamation would be minimal because most water transfers that
19 occur within the Delta require the use of SWP and/or CVP conveyance facilities.

20 Single-year water transfers that use reservoir re-operation methods also would not result in new or
21 substantially more severe significant adverse impacts on biological resources. Surface water elevations in
22 the reservoirs would become higher in some months if the transferred water is being stored for release
23 later in the year or during the next water year. However, the reservoirs would continue to be operated
24 within the surface water elevation criteria established for flood management and drought conditions.
25 Reservoir water temperatures would continue to occur within historic ranges of water temperatures and
26 support biological resources in the reservoirs and in the habitat downstream of the reservoirs. Therefore,
27 single-year water transfers would not substantially change biological resources at reservoirs involved in
28 reservoir re-operation methods for water transfers or in the streams located downstream of these
29 reservoirs.

30 Single-year water transfers that occur within the Delta would not result in new or substantially more
31 severe significant adverse impacts on Delta biological resources because most of the water transfers
32 would be required to comply with existing criteria established by the 2008 USFWS and 2009 NMFS
33 biological opinions for long-term coordinated operation of the CVP and SWP or would be required to not
34 unreasonably affect fish, wildlife, or other instream beneficial uses. As described in Section 4, *Overview*
35 *of Water Transfers*, of this addendum, water transfers that use of SWP and/or CVP conveyance facilities
36 would be implemented to not result in non-compliance of biological criteria established by the USFWS
37 and/or NMFS biological opinions or SWRCB water quality criteria to protect beneficial uses. Single-year
38 water transfers approved only by the SWRCB would be implemented to not unreasonably affect fish,
39 wildlife, or other instream beneficial uses. The number of single-year water transfers that occur within the
40 Delta and that do not need to analyze biological resources because they do not require approvals by the
41 SWRCB, DWR, or Reclamation would be minimal because most water transfers that occur within the
42 Delta require the use of SWP and/or CVP conveyance facilities. The single-year cross-Delta water
43 transfers that use SWP and/or CVP facilities would not result in new or substantially more severe
44 significant adverse impacts on biological resources in the Delta because the total volume of transferred
45 water across the Delta (single-year and multi-year water transfers) is anticipated to continue to represent a
46 minor amount of the water conveyed across the Delta for the SWP and CVP operations, as discussed in
47 Section 4.3, *Recent Cross-Delta Water Transfers*, in this addendum. Therefore, effects due to single-year
48 water transfers on Delta water quality and Delta habitat would be minimal, and continued exemption of

1 single-year water transfers from the covered action process would not be a change from existing
 2 conditions.

3 Single-year water transfers that occur within the Delta would not result in new or substantially more
 4 severe significant adverse impacts on biological resources in the areas that provide or use the transferred
 5 water due to construction activities because construction of infrastructure would not be anticipated to
 6 occur in connection with single-year water transfers. As described in Section 4.1.1, *Construction*
 7 *Activities and Water Transfers*, in this addendum, single-year water transfers would not result in
 8 construction of new facilities in areas that provide the transferred water because there is not adequate time
 9 to construct the facilities following approval of the water transfer before actions must be implemented to
 10 provide the transferred water. Single-year water transfers also would not result in construction of new
 11 facilities or community growth in areas that use the transferred water because of the uncertainty of water
 12 availability from year to year. Information presented to the Council by DWR and SWRCB at the
 13 September 24, 2015 Council meeting indicated that the volume of water involved in cross-Delta water
 14 transfers and the capacity to convey the transferred water in the SWP and CVP facilities varies annually.
 15 As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be
 16 difficult for purchasers of the transferred water to make long-term development decisions based on this
 17 intermittent and variable water supply. Therefore, there would be no effects on biological resources due to
 18 construction activities associated with single-year water transfers in the areas that provide or use the
 19 transferred water and continued exemption of single-year water transfers from the covered action process
 20 would not be a change from existing conditions.

21 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 22 adverse impacts on biological resources compared to the conclusions in the Delta Plan PEIR, because
 23 there would be no change in existing conditions, and single-year water transfers would continue to be
 24 exempt from the definition of a covered action.

25 5.4 Delta Flood Risk

26 The results of the Delta flood risk impact analysis were presented in Chapter 5 of the Delta Plan PEIR
 27 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 5-1: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 5-2: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	No	No	No
Impact 5-3: Place housing Within a 100-year Flood Hazard Area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other Flood Hazard Delineation Map?	No	No	No
Impact 5-4: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No	No	No
Impact 5-5: Place within a 100-year flood hazard area structures which would impede or redirect flood flows, or inundation by seiche, tsunami, or mudflow?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 5-1 through 5-5:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in flood risks. Based upon information in
 10 the Delta Plan PEIR, information presented to the Council, and results from recent water transfer CEQA
 11 and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
 12 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
 13 year water transfers would not result in new or substantially more severe significant adverse impacts in
 14 related to flood risks, including changes in land use that would result in construction of facilities that
 15 would change drainage patterns or runoff; expose structures and/or people to flood risks or inundation by
 16 seiche, tsunami, or mudflow; or increase flood risk due to reservoir re-operation.

1 Single-year water transfers would not result in new or substantially more severe significant adverse
2 impacts related to flood risk because the water transfers would not result in changes in land uses. Water
3 conservation, crop shifting, groundwater substitution, and reservoir re-operation to make the transferred
4 water available would not change land uses because the land would continue to be used for agriculture
5 and cultivation would continue in the same manner as without water transfers. Although crop idling
6 would change the annual use of land during the water transfer period, over the long-term the land would
7 continue to be used for agricultural purposes. Because land uses would not change in the areas that would
8 make the water available for single-year water transfers, there would be no changes in flood risk.

9 Single-year water transfers within the Delta would not result in new or substantially more severe
10 significant adverse impacts related to flood risks in the areas that provide or use the transferred water due
11 to construction activities because construction of infrastructure would not be anticipated to occur in
12 connection with single-year water transfers. As described in Section 4.1.1, *Construction Activities and*
13 *Water Transfers*, in this addendum, single-year water transfers would not result in construction of new
14 facilities in areas that provide the transferred water because there is not adequate time to construct the
15 facilities following approval of the water transfer before actions must be implemented to provide the
16 transferred water. Single-year water transfers also would not result in construction of new facilities or
17 community growth in areas that use the transferred water because of the uncertainty of water availability
18 from year to year. Information presented to the Council by DWR and SWRCB at the September 24, 2015
19 Council meeting indicated that the volume of water involved in cross-Delta water transfers and the
20 capacity to convey the transferred water in the SWP and CVP facilities varies annually. As described in
21 Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be difficult for
22 purchasers of the transferred water to make long-term development decisions based on this intermittent
23 and variable water supply. Therefore, there would be no effects due to single-year water transfers on
24 drainage flows or changes to risks of structures or people due to flooding or inundation by seiche,
25 tsunami, or mudflows associated with single-year water transfers in the areas that provide or use the
26 transferred water, and continued exemption of single-year water transfers from the covered action process
27 would not be a change from existing conditions.

28 Single-year water transfers that use reservoir re-operation methods also would not result in new or
29 substantially more severe significant adverse impacts related to flood risks. Surface water elevations in
30 the reservoirs would become higher in some months if the transferred water is being stored for release
31 later in the year or during the next water year. However, the reservoirs would continue to be operated
32 within the surface water elevation criteria established for flood management. Therefore, single-year water
33 transfers would not change flood management operations at reservoirs involved in reservoir re-operation
34 methods for water transfers or flood flow patterns in the streams located downstream of these reservoirs.

35 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
36 adverse impacts on drainage flows or risks to structures or people due to flooding or inundation by seiche,
37 tsunami, or mudflows as compared to the conclusions in the Delta Plan PEIR, because there would be no
38 change in existing conditions, and single-year water transfers would continue to be exempt from the
39 definition of a covered action.

40 5.5 Land Use and Planning

41 The results of the land use and planning impact analysis were presented in Chapter 6 of the Delta Plan
42 PEIR (Council 2013a).

43

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 6-1: Cause a physical division of an established community?	No	No	No
Impact 6-2: Cause conflict of constructed facilities with an applicable land use plan, policy, regulation, or restriction on land that was adopted for the purpose of avoiding or mitigating an environmental impact?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 6-1 and 6-2:** In accordance with CEQA, the Council considered information concerning whether
 9 water transfers could cause significant adverse changes in land uses that could cause a physical division
 10 of an established community, or cause a conflict of constructed facilities with applicable land use plans,
 11 policies, regulations, or restrictions on land that were adopted for the purpose of avoiding or mitigating an
 12 environmental impact. Based upon information in the Delta Plan PEIR, information presented to the
 13 Council, and results from recent water transfer CEQA and NEPA documents (Reclamation and
 14 SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic*
 15 *Analyses of Water Transfers*, of this addendum, single-year water transfers would not result in new or
 16 substantially more severe significant adverse impacts related to land use or construction of new facilities
 17 that would result in land use changes.

18 Water conservation, crop shifting, groundwater substitution, and reservoir re-operation to make the
 19 transferred water available would not change land uses because the land would continue to be used for
 20 agriculture and cultivation would continue in the same manner as without water transfers. Although crop
 21 idling would change the annual use of land during the water transfer period, over the long-term the land
 22 would continue to be used for agricultural purposes. Therefore, land uses would not change in the areas
 23 that would make the water available for single-year water transfers.

24 Single-year water transfers that occur within the Delta would not result in new or substantially more
 25 severe significant adverse impacts to land use that could cause a physical division of an established
 26 community, or cause a conflict of constructed facilities with applicable land use plans, policies,
 27 regulations, or restrictions on land that were adopted for the purpose of avoiding or mitigating an
 28 environmental impact in the areas that provide or use the transferred water due to construction activities
 29 because construction of infrastructure would not be anticipated to occur in connection with single-year
 30 water transfers. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 31 addendum, single-year water transfers would not result in construction of new facilities in areas that
 32 provide the transferred water because there is not adequate time to construct the facilities following
 33 approval of the water transfer before actions must be implemented to provide the transferred water.

1 Single-year water transfers also would not result in construction of new facilities or community growth in
 2 areas that use the transferred water because of the uncertainty of water availability from year to year.
 3 Information presented to the Council by DWR and SWRCB at the September 24, 2015 Council meeting
 4 indicated that the volume of water involved in cross-Delta water transfers and the capacity to convey the
 5 transferred water in the SWP and CVP facilities varies annually. As described in Section 4.1.1,
 6 *Construction Activities and Water Transfers*, in this addendum, it would be difficult for purchasers of the
 7 transferred water to make long-term development decisions based on this intermittent and variable water
 8 supply. Therefore, there would be no effects on land uses associated with single-year water transfers in
 9 the areas that provide or use the transferred water, and continued exemption of single-year water transfers
 10 from the covered action process would not be a change from existing conditions.

11 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 12 adverse impacts on land uses as compared to the conclusions in the Delta Plan PEIR, because there would
 13 be no change in existing conditions, and single-year water transfers would continue to be exempt from the
 14 definition of a covered action.

15 5.6 Agriculture and Forestry Resources

16 The results of the agriculture and forestry resources impact analysis were presented in Chapter 7 of the
 17 Delta Plan PEIR (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 7-1: Cause conversion of farmland to nonagricultural use?	No	No	No
Impact 7-2: Conflict with existing zoning for agricultural use or a Williamson Act Contract?	No	No	No
Impact 7-3: Conflict with existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned for timberland production?	No	No	No
Impact 7-4: Cause loss of forestland or conversion of forestland to nonforest use?	No	No	No
Impact 7-5: Involve other changes in the existing environment that, because of their location or nature, could result in conversion of farmland to nonagricultural use or conversion of forestland to nonforest use?	No	No	No

18

1 The Proposed Project would continue to exempt single-year water transfers from the covered action
2 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
3 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
4 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
5 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
6 covered action process.

7 **Impacts 7-1 through 7-5:** In accordance with CEQA, the Council considered information concerning
8 whether water transfers could cause significant adverse changes in agricultural and forestry resources.
9 Based upon information in the Delta Plan PEIR, information presented to the Council, and results from
10 recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as
11 described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*,
12 of this addendum, single-year water transfers would not result in new or substantially more severe
13 significant adverse impacts on long-term use of agricultural lands, disturbance of forestry resources, or
14 construction of new facilities on agricultural or forestry resources.

15 Agricultural land uses would not substantially change in the areas that would make the water available for
16 single-year water transfers because over the long-term the land would continue to be used for agricultural
17 purposes. Water conservation, crop shifting, groundwater substitution, and reservoir re-operation to make
18 the transferred water available would not change land uses because the land would continue to be used for
19 agriculture and cultivation would continue in the same manner as without water transfers. Although crop
20 idling would change the annual use of land during the water transfer period, over the long-term the land
21 would continue to be used for agricultural purposes. Therefore, agricultural land uses would not change in
22 the areas that would make the water available for single-year water transfers. As described in Section 4,
23 *Overview of Water Transfers*, of this addendum, water transfers that use SWP and/or CVP conveyance
24 facilities must provide a detailed analysis of potential changes in cropping pattern for review by DWR
25 and/or Reclamation to consider the extent of the crop idling and types of crops removed from cultivation
26 during the water transfer. Many of the historical water transfers that have occurred within the Delta have
27 used the SWP and/or CVP facilities. Over the long-term, the land involved in single-year water transfers
28 would continue to be used for agricultural purposes.

29 Forest lands are generally not irrigated and, therefore, do not participate in water transfer actions and
30 would not be changed due to single-year water transfers.

31 Single-year water transfers that occur within the Delta would not result in new or substantially more
32 severe significant adverse impacts to agricultural and forestry resources in the areas that provide or use
33 the transferred water due to construction activities because construction of infrastructure would not be
34 anticipated to occur in connection with single-year water transfers. As described in Section 4.1.1,
35 *Construction Activities and Water Transfers*, in this addendum, single-year water transfers would not
36 result in construction of new facilities in areas that provide the transferred water because there is not
37 adequate time to construct the facilities following approval of the water transfer before actions must be
38 implemented to provide the transferred water. Single-year water transfers also would not result in
39 construction of new facilities or community growth in areas that use the transferred water because of the
40 uncertainty of water availability from year to year. Information presented to the Council by DWR and
41 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
42 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
43 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
44 addendum, it would be difficult for purchasers of the transferred water to make long-term development
45 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
46 agricultural and forestry resources associated with single-year water transfers in the areas that provide or
47 use the transferred water, and continued exemption of single-year water transfers from the covered action
48 process would not be a change from existing conditions.

1 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 2 adverse impacts on agricultural and forestry resources as compared to the conclusions in the Delta Plan
 3 PEIR, because there would be no change in existing conditions, and single-year water transfers would
 4 continue to be exempt from the definition of a covered action.

5 5.7 Visual Resources

6 The results of the visual resources impact analysis were presented in Chapter 8 of the Delta Plan PEIR
 7 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 8-1: Cause substantial degradation of visual qualities?	No	No	No
Impact 8-2: Cause adverse effects on scenic vistas and scenic resources?	No	No	No
Impact 8-3: Cause new sources of substantial light or glare?	No	No	No

8
 9 The Proposed Project would continue to exempt single-year water transfers from the covered action
 10 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 11 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 12 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 13 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 14 covered action process.

15 **Impacts 8-1 through 8-3:** In accordance with CEQA, the Council considered information concerning
 16 whether water transfers could cause significant adverse changes in visual resources. Based upon
 17 information in the Delta Plan PEIR, information presented to the Council, and results from recent water
 18 transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section
 19 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum,
 20 single-year water transfers would not result in new or substantially more severe significant adverse
 21 impacts to visual resources due to changes in agricultural land uses or surface water elevations at
 22 reservoirs or due to construction of new facilities that would result in changes in vistas or sources of light
 23 or glare.

24 Visual resources associated with agricultural land uses would not change in the areas that would make the
 25 water available for single-year water transfers because over the long-term the land would continue to be
 26 used for agricultural purposes. Water conservation, crop shifting, groundwater substitution, and reservoir
 27 re-operation to make the transferred water available would not change land uses because the land would
 28 continue to be used for agriculture and cultivation would continue in the same manner as without water
 29 transfers. Although crop idling would change the annual use of land during the water transfer period, over
 30 the long-term the land would continue to be used for agricultural purposes. Therefore, the scenic vistas
 31 associated with agricultural land would not change, and there would be no new infrastructure that would
 32 result in an increase in ambient light and glare related to the agricultural areas that would make water

1 available. Use of single-year water transfers could improve scenic vistas related to irrigated agricultural
2 lands in areas that use the transferred water.

3 Single-year water transfers that use reservoir re-operation methods also would not result in new or
4 substantially more severe significant adverse impacts to visual resources at the involved reservoirs.
5 Surface water elevations in the reservoirs may become higher in some months if the transferred water is
6 being stored for release later in the year or during the next water year. However, the reservoirs would
7 continue to be operated within the surface water elevation criteria established for flood management and
8 drought conditions which would continue to support traditional visual resources. Therefore, single-year
9 water transfers would not change visual resources at reservoirs involved in reservoir re-operation methods
10 for water transfers.

11 Single-year water transfers that occur within the Delta would not result in new or substantially more
12 severe significant adverse impacts to visual resources in the areas that provide or use the transferred water
13 due to construction activities because construction of infrastructure would not be anticipated to occur in
14 connection with single-year water transfers. As described in Section 4.1.1, *Construction Activities and*
15 *Water Transfers*, in this addendum, single-year water transfers would not result in construction of new
16 facilities in areas that provide the transferred water because there is not adequate time to construct the
17 facilities following approval of the water transfer before actions must be implemented to provide the
18 transferred water. Single-year water transfers also would not result in construction of new facilities or
19 community growth in areas that use the transferred water because of the uncertainty of water availability
20 from year to year. Information presented to the Council by DWR and SWRCB at the September 24, 2015
21 Council meeting indicated that the volume of water involved in cross-Delta water transfers and the
22 capacity to convey the transferred water in the SWP and CVP facilities varies annually. As described in
23 Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be difficult for
24 purchasers of the transferred water to make long-term development decisions based on this intermittent
25 and variable water supply. Therefore, there would be no effects on visual resources associated with
26 single-year water transfers in the areas that provide or use the transferred water, and continued exemption
27 of single-year water transfers from the covered action process would not be a change from existing
28 conditions.

29 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
30 adverse impacts on visual resources as compared to the conclusions in the Delta Plan PEIR, because there
31 would be no change in existing conditions, and single-year water transfers would continue to be exempt
32 from the definition of a covered action.

33 5.8 Air Quality

34 The results of the air quality impact analysis were presented in Chapter 9 of the Delta Plan PEIR (Council
35 2013a).

36

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 9-1: Cause construction and operations of projects could conflict with an applicable Air Quality Plan, contribute substantially to an air quality violation, and/or result in a cumulatively considerable net increase of nonattainment pollutants?	No	No	No
Impact 9-2: Cause construction and operations of projects could create objectionable odors affecting a substantial number of people?	No	No	No
Impact 9-3: Cause construction or operation of projects could expose sensitive receptors to substantial pollutant concentrations?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 9-1 through 9-3:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in air quality. Based upon information in
 10 the Delta Plan PEIR, information presented to the Council, and results from recent water transfer CEQA
 11 and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
 12 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
 13 year water transfers would not result in new or substantially more severe significant adverse impacts to air
 14 quality and odor emissions related to changes in agricultural land uses and related dust generation from
 15 crop idling or fallowed lands, emissions from diesel engines used for groundwater pumping, or increased
 16 traffic due to community growth.

17 Single-year water transfers would not result in changes in long-term air quality conditions because there
 18 would not be changes in land use of agricultural lands due to long-term fallowing and related generation
 19 of dust, changes in emissions from diesel engines from groundwater pumps used for groundwater
 20 substitution, or construction of new facilities. Water conservation, crop shifting, groundwater substitution,
 21 and reservoir re-operation to make the transferred water available would not change land uses because the
 22 land would continue to be used for agriculture and cultivation would continue in the same manner as
 23 without water transfers. Air quality conditions would not change with single-year water transfers as

1 compared to conditions without single-year water transfers because the lands would remain in cultivation
2 over the long-term. Crop idling would change the annual use of land and agricultural practices during the
3 water transfer period; however, these changes would be similar to ongoing patterns of crop idling due to
4 land management and responses to agricultural markets. The Delta Plan PEIR identified Mitigation
5 Measure 9-1, which as adopted and incorporated into the Delta Plan, includes Best Management Practices
6 for crop-idled lands, including maintenance of crop residue from the last crop, seeding of land, avoiding
7 cultivating idled lands, soil stabilization chemicals, and establishment of wind breaks to reduce wind
8 erosion. Recent water transfer CEQA and NEPA documents (Reclamation 2014, 2015) as described in
9 Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this
10 addendum), also described surface soil erosion techniques that would reduce dust generation. These types
11 of practices are frequently used in agricultural areas during normal crop rotational practices that result in
12 idled crop land. In addition, as described in Section 4, *Overview of Water Transfers*, of this addendum,
13 water transfers that use SWP and/or CVP conveyance facilities must provide a detailed analysis of
14 potential changes in cropping pattern and management of the land to protect the soil from erosion and
15 dust generation. Most water transfers that occur within the Delta require the use of SWP and/or CVP
16 conveyance facilities.

17 Water transfers that require use of SWP and/or CVP conveyance facilities must submit documentation to
18 DWR and/or Reclamation that verifies the use of electric-powered groundwater pumps for groundwater
19 substitution, or verifies compliance with California Air Resources Board or local Air Pollution Control
20 District regulations for diesel or natural gas-powered groundwater pumps. Most water transfers that occur
21 within the Delta require the use of SWP and/or CVP conveyance facilities. The agricultural fields that
22 would be part of water transfer actions generally would not be located near sensitive receptors (e.g.,
23 schools, hospitals). Therefore, no change in emission potential near sensitive receptors would occur due
24 to single-year water transfers. In recent water transfer CEQA and NEPA documents (Reclamation 2014,
25 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water
26 Transfers*, of this addendum), potential changes in air quality due to groundwater substitution were
27 determined to be less than significant with implementation of mitigation measures currently included in
28 approval criteria used by DWR and Reclamation for water transfers (see Section 4.2.3.1, *Department of
29 Water Resources and Bureau of Reclamation Water Transfer White Paper Requirements*, in this
30 addendum). Therefore, effects due to single-year water transfers on air quality in areas that provide
31 transferred water would be minimal and continued exemption of single-year water transfers from the
32 covered action process would not be a change from existing conditions.

33 Single-year water transfers that occur within the Delta would not result in new or substantially more
34 severe significant adverse impacts to air quality because there would be no changes to air quality and odor
35 emissions in the areas that provide or use the transferred water due to construction activities, because
36 there would be no changes in land use or construction of infrastructure would not be anticipated to occur
37 in connection with single-year water transfers. As described in Section 4.1.1, *Construction Activities and
38 Water Transfers*, in this addendum, single-year water transfers would not result in construction of new
39 facilities in areas that provide the transferred water because there is not adequate time to construct the
40 facilities following approval of the water transfer before actions must be implemented to provide the
41 transferred water. Single-year water transfers also would not result in construction of new facilities or
42 community growth in areas that use the transferred water because of the uncertainty of water availability
43 from year to year. Information presented to the Council by DWR and SWRCB at the September 24, 2015
44 Council meeting indicated that the volume of water involved in cross-Delta water transfers and the
45 capacity to convey the transferred water in the SWP and CVP facilities varies annually. As described in
46 Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be difficult for
47 purchasers of the transferred water to make long-term development decisions which could change air
48 quality conditions based on this intermittent and variable water supply. Therefore, there would be no
49 effects on land uses and associated air quality associated with single-year water transfers in the areas that

1 provide or use the transferred water, and continued exemption of single-year water transfers from the
 2 covered action process would not be a change from existing conditions.

3 **Summary:** Single-year water transfers would not result new or substantially more severe significant
 4 adverse impacts on air quality as compared to the conclusions in the Delta Plan PEIR, because there
 5 would be no change in existing conditions, and single-year water transfers would continue to be exempt
 6 from the definition of a covered action.

7 **5.9 Cultural Resources**

8 The results of the cultural resources impact analysis were presented in Chapter 10 of Delta Plan PEIR
 9 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 10-1: Cause disturbance or destruction of prehistoric and historic-era archaeological resources?	No	No	No
Impact 10-2: Cause discovery of unrecorded human remains?	No	No	No
Impact 10-3: Cause disturbance or destruction of historic buildings, structures, and linear features?	No	No	No
Impact 10-4: Cause disturbance or destruction of cultural landscapes and traditional cultural properties?	No	No	No

10
 11 The Proposed Project would continue to exempt single-year water transfers from the covered action
 12 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 13 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 14 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 15 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 16 covered action process.

17 **Impacts 10-1 through 10-4:** In accordance with CEQA, the Council considered information concerning
 18 whether water transfers could cause significant adverse changes in cultural resources. Based upon
 19 information in the Delta Plan PEIR, information presented to the Council, and results from recent water
 20 transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section
 21 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum,
 22 single-year water transfers would not result in new or substantially more severe significant adverse
 23 impacts to cultural resources because there would be no changes in land use or construction of new
 24 facilities that would result in cultural resources changes.

1 Cultural resources would not be disturbed or destroyed in the areas that would make the water available
2 for single-year water transfers because over the long-term the land would continue to be used for
3 agricultural purposes without construction of new infrastructure. Water conservation, crop shifting,
4 groundwater substitution, and reservoir re-operation to make the transferred water available would not
5 change land uses because the land would continue to be used for agriculture and cultivation would
6 continue in the same manner as without water transfers. Although crop idling would change the annual
7 use of land during the water transfer period, over the long-term the land would continue to be used for
8 agricultural purposes. Therefore, the potential to disturb or destroy cultural resources would not change in
9 the areas that would make the water available for single-year water transfers.

10 Single-year water transfers that use reservoir re-operation methods also would not result in new or
11 substantially more severe significant adverse impacts related to exposure of cultural resources. Surface
12 water elevations in the reservoirs would become higher in some months if the transferred water is being
13 stored for release later in the year or during the next water year. However, the reservoir would continue to
14 be operated within the surface water elevation criteria established for flood management and drought
15 conditions. Therefore, single-year water transfers would not substantially change exposure of cultural
16 resources at reservoirs involved in reservoir re-operation methods for water transfers.

17 Single-year water transfers that occur within the Delta would not result in new or substantially more
18 severe significant adverse impacts to cultural resources, because there would be no changes inland uses
19 that would disturb or expose cultural resources in the areas that provide or use the transferred water and
20 construction of infrastructure would not be anticipated to occur in connection with single-year water
21 transfers. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum,
22 single-year water transfers would not result in construction of new facilities in areas that provide the
23 transferred water because there is not adequate time to construct the facilities following approval of the
24 water transfer before actions must be implemented to provide the transferred water. Single-year water
25 transfers also would not result in construction of new facilities or community growth in areas that use the
26 transferred water because of the uncertainty of water availability from year to year. Information presented
27 to the Council by DWR and SWRCB at the September 24, 2015 Council meeting indicated that the
28 volume of water involved in cross-Delta water transfers and the capacity to convey the transferred water
29 in the SWP and CVP facilities varies annually. As described in Section 4.1.1, *Construction Activities and*
30 *Water Transfers*, in this addendum, it would be difficult for purchasers of the transferred water to make
31 long-term development decisions based on this intermittent and variable water supply. Therefore, there
32 would be no effects on land uses or construction activities that would affect cultural resources associated
33 with single-year water transfers in the areas that provide or use the transferred water, and continued
34 exemption of single-year water transfers from the covered action process would not be a change from
35 existing conditions.

36 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
37 adverse impacts on cultural resources as compared to the conclusions in the Delta Plan PEIR, because
38 there would be no change in existing conditions, and single-year water transfers would continue to be
39 exempt from the definition of a covered action.

40 5.10 Geology and Soils

41 The results of the geology and soils impact analysis were presented in Chapter 11 of the Delta Plan PEIR
42 (Council 2013a).

43

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 11-1: Cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault?	No	No	No
Impact 11-2: Cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to strong ground motion associated with seismic shaking?	No	No	No
Impact 11-3: Cause construction and operations of projects could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in loss of bearing value, lateral spreading, subsidence, liquefaction or collapse?	No	No	No
Impact 11-4: Cause construction of projects could result in substantial soil erosion or the loss of topsoil?	No	No	No
Impact 11-5: Cause construction of projects could lead to impacts associated with the presence of expansive soils?	No	No	No
Impact 11-6: Cause operation of projects could result in impacts associated with the occurrence of nuisance water in adjacent areas due to leakage?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 11-7: Cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	No	No	No
Impact 11-8: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No	No	No
Impact 11-9: Cause substantial risks to life or property due to construction of project facilities on high organic matter soils?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 11-1, 11-2, and 11-5 through 11-9:** In accordance with CEQA, the Council considered
 9 information concerning whether water transfers could cause significant adverse changes in geology and
 10 soils resources. Based upon information in the Delta Plan PEIR, information presented to the Council,
 11 and results from recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014,
 12 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water*
 13 *Transfers*, of this addendum, single-year water transfers would not result in new or substantially more
 14 severe significant adverse impacts because there would be no changes in land use or construction of new
 15 facilities that would result in changes in geology and soils, including placement of structures or people in
 16 areas that would increase the risks due to seismic activity, construction on expansive soils, nuisance
 17 water, landslides, discharge of wastewater, or high organic matter soils.

18 Potential changes in geology and soils, including placement of structures or people in areas that would
 19 increase the risks due to seismic activity, construction on expansive soils, nuisance water, landslides,
 20 discharge of wastewater, or high organic matter soils would not change in the areas that would make the
 21 water available for single-year water transfers because over the long-term the land would continue to be
 22 used for agricultural purposes and not result in the construction of new structures or excavations. Water
 23 conservation, crop shifting, groundwater substitution, and reservoir re-operation to make the transferred
 24 water available would not change land uses because the land would continue to be used for agriculture
 25 and cultivation would continue in the same manner as without water transfers. Although crop idling
 26 would change the annual use of land during the water transfer period, over the long-term the land would

1 continue to be used for agricultural purposes. Therefore, no changes in land uses in the areas that would
2 make the water available for single-year water transfers would occur which would result in placement of
3 structures or people in areas that would increase the risks due to seismic activity, construction on
4 expansive soils, nuisance water, landslides, discharge of wastewater, or high organic matter soils.

5 Single-year water transfers that occur within the Delta would not result in new or substantially more
6 severe significant adverse impacts on geology and soils in the areas that provide or use the transferred
7 water due to construction activities, because construction of infrastructure would not be anticipated to
8 occur in connection with single-year water transfers. As described in Section 4.1.1, *Construction*
9 *Activities and Water Transfers*, in this addendum, single-year water transfers would not result in
10 construction of new facilities in areas that provide the transferred water because there is not adequate time
11 to construct the facilities following approval of the water transfer before actions must be implemented to
12 provide the transferred water. Single-year water transfers also would not result in construction of new
13 facilities or community growth in areas that use the transferred water because of the uncertainty of water
14 availability from year to year. Information presented to the Council by DWR and SWRCB at the
15 September 24, 2015 Council meeting indicated that the volume of water involved in cross-Delta water
16 transfers and the capacity to convey the transferred water in the SWP and CVP facilities varies annually.
17 As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be
18 difficult for purchasers of the transferred water to make long-term development decisions based on this
19 intermittent and variable water supply. Therefore, there would be no effects on land uses that would affect
20 geology and soils that would increase the risks due to seismic activity, construction on expansive soils,
21 nuisance water, landslides, discharge of wastewater, or high organic matter soils associated with single-
22 year water transfers in the areas that provide or use the transferred water, and continued exemption of
23 single-year water transfers from the covered action process would not be a change from existing
24 conditions.

25 **Impact 11-3:** In accordance with CEQA, the Council considered information concerning whether water
26 transfers could cause significant adverse changes in geology and soils resources. Based upon information
27 in the Delta Plan PEIR, information presented to the Council, and results from recent water transfer
28 CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
29 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
30 year water transfers would not result in new or substantially more severe significant adverse impacts
31 related to increased land subsidence due to groundwater pumping.

32 As described under Impacts 11-1, 11-2, and 11-5 through 11-9, single-year water transfers would not
33 result in land use changes or construction of infrastructure that would increase risks due to placement of
34 structures or people on unstable soils that would be subject to a loss in bearing value, lateral spreading,
35 liquefaction, or collapse.

36 Single-year water transfers also would not result in new or substantially more severe significant adverse
37 impacts related to changes in localized subsidence. As described in Section 4.3, *Recent Cross-Delta*
38 *Water Transfers*, and Section 5.2, *Water Resources*, of this addendum, groundwater substitution has been
39 used for 6 of the 13 years between 2001 and 2013. In those 6 years, groundwater substitution represented
40 5 percent or less of the total amount of groundwater pumped in the Sacramento Valley (DWR 2013,
41 2015). As discussed in recent water transfer CEQA and NEPA documents (see Section 5.1, *Consideration*
42 *of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum), changes in local
43 subsidence conditions due to groundwater substitution were determined to be less than significant with
44 implementation of mitigation measures currently included in approval criteria used by DWR and
45 Reclamation (Reclamation and SLDMWA 2014, 2015). Water transfer proposals must include detailed
46 analyses of potential groundwater conditions and implementation of groundwater mitigation and
47 monitoring plans if groundwater substitution would be used for water transfers for water transfers that use
48 SWP and/or CVP conveyance facilities. Single-year water transfers approved only by the SWRCB would

1 be implemented in a manner that does not result in injury to other legal water users, including changes to
2 groundwater conditions caused by subsidence, and also would require analysis of groundwater conditions
3 if groundwater substitution methods would be used. The number of single-year water transfers that occur
4 within the Delta that do not need to analyze groundwater conditions because they would not require
5 approvals by the SWRCB, DWR, or Reclamation would be minimal, because most water transfers that
6 occur within the Delta would require use of SWP and CVP facilities. Therefore, effects due to single-year
7 water transfers on groundwater conditions and associated land subsidence in the Sacramento Valley or the
8 Delta would be minimal and continued exemption of single-year water transfers from the covered action
9 process would not be a change from existing conditions.

10 **Impact 11-4:** In accordance with CEQA, the Council considered information concerning whether water
11 transfers could cause significant adverse changes in geology and soils resources. Based upon information
12 in the Delta Plan PEIR, information presented to the Council, and results from recent water transfer
13 CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
14 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
15 year water transfers would not result in new or substantially more severe significant adverse impacts
16 related to topsoil erosion on crop idled lands.

17 Crop idling would change the annual use of land and agricultural practices during the water transfer
18 period; however, these changes would be similar to ongoing patterns of crop idling due to land
19 management and responses to agricultural markets. The Delta Plan PEIR identified Mitigation Measure 9-
20 1, which as adopted and incorporated into the Delta Plan, includes Best Management Practices for crop-
21 idled lands, including maintenance of crop residue from the last crop, seeding of land, avoiding
22 cultivating idled lands, soil stabilization chemicals, and establishment of wind breaks to reduce wind
23 erosion. Recent water transfer CEQA and NEPA documents (Reclamation 2014, 2015) as described in
24 Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this
25 addendum), also described surface soil erosion techniques that would reduce dust generation. These types
26 of practices are frequently used in agricultural areas during normal crop rotational practices that result in
27 idled crop land. In addition, as described in Section 4, *Overview of Water Transfers*, of this addendum,
28 water transfers that use SWP and/or CVP conveyance facilities must provide a detailed analysis of
29 potential changes in cropping pattern and management of the land to protect the soil from erosion. Most
30 water transfers that occur within the Delta require the use of SWP and/or CVP conveyance facilities.
31 Therefore, there would be no effects due to single-year water transfers on potential wind erosion
32 associated with single-year water transfers in the areas that provide the transferred water, and continued
33 exemption of single-year water transfers from the covered action process would not be a change from
34 existing conditions.

35 In areas that use the transferred water, the risk of wind erosion would be reduced if the transferred water
36 was used on idled crop lands.

37 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
38 adverse impacts on geology and soils as compared to the conclusions in the Delta Plan PEIR, because
39 there would be no change in existing conditions, and single-year water transfers would continue to be
40 exempt from the definition of a covered action.

41 5.11 Paleontological Resources

42 The results of the paleontological resources impact analysis were presented in Chapter 12 of the Delta
43 Plan PEIR (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 12-1: Cause destruction of paleontological resources or unique geological features?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
7 covered action process.

8 **Impact 12-1:** In accordance with CEQA, the Council considered information concerning whether water
9 transfers could cause significant adverse changes in paleontological resources. Based upon information in
10 the Delta Plan PEIR, information presented to the Council, and results from recent water transfer CEQA
11 and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1,
12 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-
13 year water transfers would not result in new or substantially more severe significant adverse impacts,
14 because there would be no changes related to land use, reservoir surface water elevations, or construction
15 of new facilities that would result in paleontological resources changes.

16 The potential for destruction of paleontological resources would not change in the areas that would make
17 the water available for single-year water transfers because over the long-term the land would continue to
18 be used for agricultural purposes and no construction would be anticipated. Water conservation, crop
19 shifting, groundwater substitution, and reservoir re-operation to make the transferred water available
20 would not change land uses because the land would continue to be used for agriculture and cultivation
21 would continue in the same manner as without water transfers. Although crop idling would change the
22 annual use of land during the water transfer period, over the long-term the land would continue to be used
23 for agricultural purposes. Therefore, the potential for disturbance of paleontological resources would not
24 change because the land uses would not change in the areas that would make the water available for
25 single-year water transfers.

26 Single-year water transfers that use reservoir re-operation methods also would not result in new or
27 substantially more severe significant adverse impacts related to exposure of paleontological resources.
28 Surface water elevations in the reservoirs would become higher in some months if the transferred water is
29 being stored for release later in the year or during the next water year. However, the reservoir would
30 continue to be operated within the surface water elevation criteria established for flood management and
31 drought conditions. Therefore, single-year water transfers would not substantially change exposure of
32 paleontological resources at reservoirs involved in reservoir re-operation methods for water transfers.

33 Single-year water transfers that occur within the Delta would not result in new or substantially more
34 severe significant adverse impacts related to changes inland uses that would disturb or expose
35 paleontological resources in the areas that provide or use the transferred water due to construction
36 activities because construction of infrastructure would not be anticipated to occur in connection with
37 single-year water transfers. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in
38 this addendum, single-year water transfers would not result in construction of new facilities in areas that

1 provide the transferred water because there is not adequate time to construct the facilities following
 2 approval of the water transfer before actions must be implemented to provide the transferred water
 3 Single-year water transfers also would not result in construction of new facilities or community growth in
 4 areas that use the transferred water because of the uncertainty of water availability from year to year.
 5 Information presented to the Council by DWR and SWRCB at the September 24, 2015 Council meeting
 6 indicated that the volume of water involved in cross-Delta water transfers and the capacity to convey the
 7 transferred water in the SWP and CVP facilities varies annually. As described in Section 4.1.1,
 8 *Construction Activities and Water Transfers*, in this addendum, it would be difficult for purchasers of the
 9 transferred water to make long-term development decisions based on this intermittent and variable water
 10 supply. Therefore, there would be no effects on land uses or construction that could result in disturbance
 11 of paleontological resources associated with single-year water transfers in the areas that provide or use the
 12 transferred water, and continued exemption of single-year water transfers from the covered action process
 13 would not be a change from existing conditions.

14 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 15 adverse impacts on paleontological resources as compared to the conclusions in the Delta Plan PEIR,
 16 because there would be no change in existing conditions, and single-year water transfers would continue
 17 to be exempt from the definition of a covered action.

18 5.12 Mineral Resources

19 The results of the mineral resources impact analysis were presented in Chapter 13 of the Delta Plan PEIR
 20 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 13-1: Cause loss of availability of a known mineral resource that would be of value to the region and residents of the State?	No	No	No
Impact 13-2: Cause loss of availability of a locally Important Mineral Resource Recovery Site delineated on a local general plan, specific plan, or other land use plan?	No	No	No

21
 22 The Proposed Project would continue to exempt single-year water transfers from the covered action
 23 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 24 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 25 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 26 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 27 covered action process.

28 **Impacts 13-1 and 13-2:** In accordance with CEQA, the Council considered information concerning
 29 whether water transfers could cause significant adverse changes on mineral resources. Based upon
 30 information in the Delta Plan EIR, information presented to the Council, and results from recent water

1 transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section
2 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum,
3 single-year water transfers would not result in new or substantially more severe significant adverse
4 impacts related to changes in land use or construction of new facilities that would result in changes to
5 mineral resources.

6 The potential for loss of mineral resources would not change in the areas that would make the water
7 available for single-year water transfers because over the long-term the land would continue to be used
8 for agricultural purposes. Water conservation, crop shifting, groundwater substitution, and reservoir re-
9 operation to make the transferred water available would not change land uses because the land would
10 continue to be used for agriculture and cultivation would continue in the same manner as without water
11 transfers. Although crop idling would change the annual use of land during the water transfer period, over
12 the long-term the land would continue to be used for agricultural purposes. Therefore, mineral resources
13 conditions would not change because land uses would not change in the areas that would make the water
14 available for single-year water transfers.

15 Single-year water transfers that occur within the Delta would not result in new or substantially more
16 severe significant adverse impacts related to changes inland uses that would affect mineral resources in
17 the areas that provide or use the transferred water due to construction activities because construction of
18 infrastructure would not be anticipated to occur in connection with single-year water transfers. As
19 described in Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, single-year
20 water transfers would not result in construction of new facilities in areas that provide the transferred water
21 because there is not adequate time to construct the facilities following approval of the water transfer
22 before actions must be implemented to provide the transferred water. Single-year water transfers also
23 would not result in construction of new facilities or community growth in areas that use the transferred
24 water because of the uncertainty of water availability from year to year. Information presented to the
25 Council by DWR and SWRCB at the September 24, 2015 Council meeting indicated that the volume of
26 water involved in cross-Delta water transfers and the capacity to convey the transferred water in the SWP
27 and CVP facilities varies annually. As described in Section 4.1.1, *Construction Activities and Water
28 Transfers*, in this addendum, it would be difficult for purchasers of the transferred water to make long-
29 term development decisions based on this intermittent and variable water supply. Therefore, there would
30 be no effects on mineral resources associated with single-year water transfers in the areas that provide or
31 use the transferred water, and continued exemption of single-year water transfers from the covered action
32 process would not be a change from existing conditions.

33 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
34 adverse impacts on mineral resources as compared to the conclusions in the Delta Plan PEIR, because
35 there would be no change in existing conditions, and single-year water transfers would continue to be
36 exempt from the definition of a covered action.

37 5.13 Hazards and Hazardous Materials

38 The results of the hazards and hazardous materials impact analysis were presented in Chapter 14 of the
39 Delta Plan PEIR (Council 2013a).

40

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 14-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No	No	No
Impact 14-2: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code, Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	No	No	No
Impact 14-3: Create Vector habitat that would pose a significant public health hazard?			
Impact 14-4: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?			
Impact 14-5: Increase safety hazards for people residing in or working in the project areas within the vicinity of a private airstrip, within an airport land use plan, or within 2 miles of a public airport or public use airport, or create airport safety hazards?			
Impact 14-6: Expose people or structures to a significant risk of loss, injury or death involving wildland fires?			

1 The Proposed Project would continue to exempt single-year water transfers from the covered action
2 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
3 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
4 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
5 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
6 covered action process.

7 **Impacts 14-1 through 14-6:** In accordance with CEQA, the Council considered information concerning
8 whether water transfers could cause significant adverse changes related to exposure of the public or the
9 environment to hazards and hazardous materials. Based upon information in the Delta Plan EIR,
10 information presented to the Council, and results from recent water transfer CEQA and NEPA documents
11 (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of Results of Similar*
12 *Programmatic Analyses of Water Transfers*, of this addendum, single-year water transfers would not
13 result in new or substantially more severe significant adverse impacts related to changes in land use or
14 construction of new facilities that would increase the risk of people or structures to be exposed to
15 hazardous materials, hazards, wildland fires, or vector habitats that would result in public health hazards.

16 The potential for increased exposure of the public or the environment to hazards or hazardous materials
17 would not change in the areas that would make the water available for single-year water transfers because
18 over the long-term the land uses would not change. Water conservation, crop shifting, groundwater
19 substitution, and reservoir re-operation to make the transferred water available would not change land
20 uses because the land would continue to be used for agriculture and cultivation would continue in the
21 same manner as without water transfers. Although crop idling would change the annual use of land during
22 the water transfer period, over the long-term the land would continue to be used for agricultural purposes.
23 Because land uses would not change in the areas that would make the water available for single-year
24 water transfers, agricultural practices would continue in the areas that provide the transferred water
25 without changing the potential for exposure of people or structures to hazardous materials, hazards,
26 wildland fires, or vector habitats that would result in public health hazards.

27 Single-year water transfers that occur within the Delta would not result in new or substantially more
28 severe significant adverse impacts related to changes inland uses that would result in changes for
29 exposure of people or structures to hazardous materials, hazards, wildland fires, or vector habitats in the
30 areas that provide or use the transferred water due to construction activities because construction of
31 infrastructure would not be anticipated to occur in connection with single-year water transfers. As
32 described in Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, single-year
33 water transfers would not result in construction of new facilities in areas that provide the transferred water
34 because there is not adequate time to construct the facilities following approval of the water transfer
35 before actions must be implemented to provide the transferred water. Single-year water transfers also
36 would not result in construction of new facilities or community growth in areas that use the transferred
37 water because of the uncertainty of water availability from year to year. Information presented to the
38 Council by DWR and SWRCB at the September 24, 2015 Council meeting indicated that the volume of
39 water involved in cross-Delta water transfers and the capacity to convey the transferred water in the SWP
40 and CVP facilities varies annually. As described in Section 4.1.1, *Construction Activities and Water*
41 *Transfers*, in this addendum, it would be difficult for purchasers of the transferred water to make long-
42 term development decisions based on this intermittent and variable water supply. Therefore, there would
43 be no effects on land uses that would change the potential for exposure of people or structures to
44 hazardous materials, hazards, wildland fires, or vector habitats associated with single-year water transfers
45 in the areas that provide or use the transferred water, and continued exemption of single-year water
46 transfers from the covered action process would not be a change from existing conditions.

47 **Summary:** Single-year water transfers would not result in changes in land use or construction of new
48 facilities that would result in new or substantially more severe significant adverse impacts related to the

1 potential for exposure of people or structures to hazardous materials, hazards, wildland fires, or vector
 2 habitat as compared to the conclusions in the Delta Plan PEIR, because there would be no change in
 3 existing conditions, and single-year water transfers would continue to be exempt from the definition of a
 4 covered action.

5 5.14 Noise

6 The results of the noise impact analysis were presented in Chapter 15 of the Delta Plan PEIR (Council
 7 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 15-1: Cause exposure of sensitive receptors to excessive temporary, short-term construction noise?	No	No	No
Impact 15-2: Cause temporary and short-term exposure of sensitive receptors to excessive groundborne vibrations?	No	No	No
Impact 15-3: Cause long-term exposure of sensitive receptors to excessive noise from operations?	No	No	No

8
 9 The Proposed Project would continue to exempt single-year water transfers from the covered action
 10 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 11 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 12 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 13 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 14 covered action process.

15 **Impacts 15-1 and 15-2:** In accordance with CEQA, the Council considered information concerning
 16 whether water transfers could cause significant adverse changes in noise or groundborne vibrations.
 17 Based upon information in the Delta Plan PEIR, information presented to the Council, and results from
 18 recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as
 19 described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*,
 20 of this addendum, single-year water transfers would not result in new or substantially more severe
 21 significant adverse impacts related to changes in land use or construction of new facilities that would
 22 result in changes in noise or groundborne vibrations.

23 Single-year water transfers that occur within the Delta would not result in new or substantially more
 24 severe significant adverse impacts on noise or cause groundborne vibrations in the areas that provide or
 25 use the transferred water due to construction activities because construction of infrastructure would not be
 26 anticipated to occur in connection with single-year water transfers. As described in Section 4.1.1,
 27 *Construction Activities and Water Transfers*, in this addendum, single-year water transfers would not
 28 result in construction of new facilities in areas that provide the transferred water because there is not
 29 adequate time to construct the facilities following approval of the water transfer before actions must be

1 implemented to provide the transferred water. Single-year water transfers also would not result in
2 construction of new facilities or community growth in areas that use the transferred water because of the
3 uncertainty of water availability from year to year. Information presented to the Council by DWR and
4 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
5 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
6 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
7 addendum, it would be difficult for purchasers of the transferred water to make long-term development
8 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
9 noise or groundborne vibrations associated with single-year water transfers in the areas that provide or
10 use the transferred water, and continued exemption of single-year water transfers from the covered action
11 process would not be a change from existing conditions.

12 **Impact 15-3:** In accordance with CEQA, the Council considered information concerning whether water
13 transfers could cause significant adverse changes in long-term exposure of sensitive receptors to
14 excessive noise during operations. Based upon information in the Delta Plan PEIR, information presented
15 to the Council, and results from recent water transfer CEQA and NEPA documents (Reclamation and
16 SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic*
17 *Analyses of Water Transfers*, of this addendum, single-year water transfers would not result in new or
18 substantially more severe significant adverse impacts related to changes in land use or construction of
19 new facilities that would result in changes in noise.

20 Single-year water transfers would not result in new or substantially more severe significant adverse
21 impacts to noise conditions due to equipment operations, including noise during operations of
22 groundwater pumps for groundwater substitution methods. As described in Section 4.3, *Recent Cross-*
23 *Delta Water Transfers*, and Section 5.2, *Water Resources*, of this addendum, groundwater substitution has
24 been used for 6 of the 13 years between 2001 and 2013. In those 6 years, groundwater substitution
25 represented 5 percent or less of the total amount of groundwater pumped in the Sacramento Valley (DWR
26 2013, 2015). As discussed in recent water transfer CEQA and NEPA documents (see Section 5.1,
27 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum),
28 changes in noise conditions due to groundwater substitution were determined to be less than significant
29 with implementation of mitigation measures currently included in approval criteria used by DWR and
30 Reclamation (Reclamation and SLDMWA 2014, 2015). Increase in noise due to additional groundwater
31 pump use during groundwater substitution actions would occur in agricultural fields that would not be
32 located near sensitive receptors (e.g., schools, hospitals). Therefore, effects due to single-year water
33 transfers on noise in the Sacramento Valley or the Delta would be minimal and continued exemption of
34 single-year water transfers from the covered action process would not be a change from existing
35 conditions.

36 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
37 adverse impacts on noise or groundborne vibrations as compared to the conclusions in the Delta Plan,
38 because there would be no change in existing conditions, and single-year water transfers would continue
39 to be exempt from the definition of a covered action.

40 5.15 Population and Housing

41 The results of the population and housing impact analysis were presented in Chapter 16 of the Delta Plan
42 PEIR (Council 2013a).

43

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 16-1: Induce substantial population growth in an area, either directly or indirectly?	No	No	No
Impact 16-2: Displace substantial numbers of existing housing and/or people, necessitating the construction of replacement housing elsewhere?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
7 covered action process.

8 **Impacts 16-1 and 16-2:** In accordance with CEQA, the Council considered information concerning
9 whether water transfers could cause significant adverse changes in population and housing. Based upon
10 information in the Delta Plan PEIR, information presented to the Council, and results from recent water
11 transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section
12 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum,
13 single-year water transfers would not result in new or substantially more severe significant adverse
14 impacts related to changes in land use or construction of new facilities that would result in population and
15 housing changes.

16 Land uses and the associated population and housing conditions would not change in the areas that would
17 make the water available for single-year water transfers. Water conservation, crop shifting, groundwater
18 substitution, and reservoir re-operation to make the transferred water available would not change land
19 uses because the land would continue to be used for agriculture and cultivation would continue in the
20 same manner as without water transfers. Although crop idling would change the annual use of land during
21 the water transfer period, over the long-term the land would continue to be used for agricultural purposes.
22 Because land uses would not change in the areas that would make the water available for single-year
23 water transfers, single-year water transfers would not result in increased population and housing on the
24 lands involved in the water transfer actions.

25 Single-year water transfers that occur within the Delta would not result in new or substantially more
26 severe significant adverse impacts on population and housing in the areas that provide or use the
27 transferred water due to construction activities because construction of infrastructure would not be
28 anticipated to occur in connection with single-year water transfers. As described in Section 4.1.1,
29 *Construction Activities and Water Transfers*, in this addendum, single-year water transfers would not
30 result in construction of new facilities in areas that provide the transferred water because there is not
31 adequate time to construct the facilities following approval of the water transfer before actions must be
32 implemented to provide the transferred water. Single-year water transfers also would not result in
33 construction of new facilities or community growth in areas that use the transferred water because of the
34 uncertainty of water availability from year to year. Information presented to the Council by DWR and

1 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
 2 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
 3 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 4 addendum, it would be difficult for purchasers of the transferred water to make long-term development
 5 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
 6 population and housing associated with single-year water transfers in the areas that provide or use the
 7 transferred water, and continued exemption of single-year water transfers from the covered action process
 8 would not be a change from existing conditions.

9 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 10 adverse impacts on population and housing as compared to the conclusions in the Delta Plan PEIR,
 11 because there would be no change in existing conditions, and single-year water transfers would continue
 12 to be exempt from the definition of a covered action.

13 **5.16 Public Services**

14 The results of the public services impact analysis were presented in Chapter 17 of the Delta Plan PEIR
 15 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 17-1: Cause the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services, police protection, schools, or libraries?	No	No	No

16
 17 The Proposed Project would continue to exempt single-year water transfers from the covered action
 18 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 19 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 20 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 21 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 22 covered action process.

23 **Impact 17-1:** In accordance with CEQA, the Council considered information concerning whether water
 24 transfers could cause significant adverse changes in the operation and need for government facilities or
 25 public services. Based upon information in the Delta Plan PEIR, information presented to the Council,
 26 and results from recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014,
 27 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water*
 28 *Transfers*, of this addendum, single-year water transfers would not result in new or substantially more
 29 severe significant adverse impacts related to changes in land use or construction of new facilities that
 30 would result in changes in the need for use of government facilities or public services such as police, fire,
 31 emergency medical, library, and school services.

1 There would be no need for new or physically altered governmental facilities or services because the land
 2 use and associated population and infrastructure would not change in the areas that would make the water
 3 available for single-year water transfers. Water conservation, crop shifting, groundwater substitution, and
 4 reservoir re-operation to make the transferred water available would not change land uses because the
 5 land would continue to be used for agriculture and cultivation would continue in the same manner as
 6 without water transfers. Although crop idling would change the annual use of land during the water
 7 transfer period, over the long-term the land would continue to be used for agricultural purposes. Because
 8 land uses would not change in the areas that would make the water available for single-year water
 9 transfers, there would not be an increase in the need for use of government facilities or public services
 10 such as police, fire, emergency medical, library, and school services.

11 Single-year water transfers that occur within the Delta would not result in new or substantially more
 12 severe significant adverse impacts on the need for use of government facilities or services in the areas that
 13 provide or use the transferred water due to construction activities because construction of infrastructure
 14 would not be anticipated to occur in connection with single-year water transfers. As described in Section
 15 4.1.1, *Construction Activities and Water Transfers*, in this addendum, single-year water transfers would
 16 not result in construction of new facilities in areas that provide the transferred water because there is not
 17 adequate time to construct the facilities following approval of the water transfer before actions must be
 18 implemented to provide the transferred water. Single-year water transfers also would not result in
 19 construction of new facilities or community growth in areas that use the transferred water because of the
 20 uncertainty of water availability from year to year. Information presented to the Council by DWR and
 21 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
 22 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
 23 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 24 addendum, it would be difficult for purchasers of the transferred water to make long-term development
 25 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
 26 land uses and the associated need for government facilities or public services such as police, fire,
 27 emergency medical, library, and school services associated with single-year water transfers in the areas
 28 that provide or use the transferred water, and continued exemption of single-year water transfers from the
 29 covered action process would not be a change from existing conditions.

30 **Summary:** Single-year water transfers would not result in changes in new or substantially more severe
 31 significant adverse impacts on land uses and the associated need for government facilities or public
 32 services such as police, fire, emergency medical, library, and school services as compared to the
 33 conclusions in the Delta Plan PEIR, because there would be no change in existing conditions, and single-
 34 year water transfers would continue to be exempt from the definition of a covered action.

35 5.17 Recreation

36 The results of the recreation impact analysis were presented in Chapter 18 of the Delta Plan PEIR
 37 (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 18-1: Impair, degrade, or eliminate recreation facilities and activities?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 18-2: Increase the use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No	No	No
Impact 18-3: Require the construction or expansion of recreation facilities which might have an adverse physical effect on the environment?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 18-1 through 18-3:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in recreational opportunities. Based upon
 10 information in the Delta Plan PEIR, information presented to the Council, and results from recent water
 11 transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in Section
 12 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum,
 13 single-year water transfers would not result in new or substantially more severe significant adverse
 14 impacts on recreational opportunities related to changes in land use that would impair, degrade, or
 15 eliminate recreational facilities or require additional or expanded recreational facilities.

16 Recreational facilities, the use of these facilities, and the need for additional or expanded recreational
 17 facilities would not change in the areas that would make the water available for single-year water
 18 transfers because over the long-term the land use and population would not change(see Section 5.5, *Land*
 19 *Use and Planning*, and Section 5.15, *Population and Housing*, of this addendum). Water conservation,
 20 crop shifting, groundwater substitution, and reservoir re-operation to make the transferred water available
 21 would not change land uses because the land would continue to be used for agriculture and cultivation
 22 would continue in the same manner as without water transfers. Although crop idling would change the
 23 annual use of land during the water transfer period, over the long-term the land would continue to be used
 24 for agricultural purposes. Because land uses would not change in the areas that would make the water
 25 available for single-year water transfers, the land would continue to be used for agricultural purposes and
 26 would not physically change existing recreational facilities, change or increase the use of recreational
 27 facilities, or require the construction of new or expanded recreational facilities.

28 Single-year water transfers that use reservoir re-operation methods also would not result in new or
 29 substantially more severe significant adverse impacts on recreational facilities or activities. Surface water
 30 elevations in the reservoirs may become higher in some months if the transferred water is being stored for
 31 release later in the year or during the next water year. However, the reservoirs would continue to be
 32 operated within the surface water elevation criteria established for flood management and drought

1 conditions which would continue to support historic recreational opportunities. Therefore, single-year
 2 water transfers would not change recreational opportunities at reservoirs involved in reservoir re-
 3 operation methods for water transfers.

4 Single-year water transfers that occur within the Delta would not result in new or substantially more
 5 severe significant adverse impacts on recreational opportunities in the areas that provide or use the
 6 transferred water due to construction activities because construction of infrastructure would not be
 7 anticipated to occur in connection with single-year water transfers. As described in Section 4.1.1,
 8 *Construction Activities and Water Transfers*, in this addendum, single-year water transfers also would not
 9 result in construction of new facilities in areas that provide the transferred water because there is not
 10 adequate time to construct the facilities following approval of the water transfer before actions must be
 11 implemented to provide the transferred water. Single-year water transfers also would not result in
 12 construction of new facilities or community growth in areas that use the transferred water because of the
 13 uncertainty of water availability from year to year. Information presented to the Council by DWR and
 14 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
 15 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
 16 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 17 addendum, it would be difficult for purchasers of the transferred water to make long-term development
 18 decisions based on this intermittent and variable water supply. Therefore, there would be no effects to
 19 existing recreational facilities, use of recreational facilities, or changes to recreational facilities that would
 20 require the construction or expansion of recreational facilities associated with single-year water transfers
 21 in the areas that provide or use the transferred water, and continued exemption of single-year water
 22 transfers from the covered action process would not be a change from existing conditions.

23 **Summary:** Single-year water transfers would not result in changes in new or substantially more severe
 24 significant adverse impacts on recreational resources as compared to the conclusions in the Delta Plan
 25 PEIR, because there would be no change in existing conditions, and single-year water transfers would
 26 continue to be exempt from the definition of a covered action.

27 5.18 Transportation, Traffic, and Circulation

28 The results of the transportation, traffic, and circulation impact analysis were presented in Chapter 19 of
 29 the Delta Plan PEIR (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 19-1: Cause construction- and operations-related conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation?	No	No	No
Impact 19-2: Cause potential increase in hazards related to a design feature?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 19-3: Cause potential reduction in adequate emergency access?	No	No	No
Impact 19-4: Cause construction- and operations-related conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 19-1 through 19-4:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in transportation, traffic, and circulation.
 10 Based upon information in the Delta Plan PEIR, information presented to the Council, and results from
 11 recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as
 12 described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*,
 13 of this addendum, single-year water transfers would not result in new or substantially more severe
 14 significant adverse impacts on transportation, traffic, and circulation due to changes in land use or
 15 construction of facilities that would conflict with applicable transportation plans and policies, increase
 16 transportation hazards, interfere with or reduce emergency access, or conflict with plans and policies for
 17 bicycle and pedestrian facilities.

18 Transportation conditions are not anticipated to change because single-year water transfers would not
 19 result in changes to land use and population (see Section 5.5, *Land Use and Planning*, and Section 5.15,
 20 *Population and Housing*, of this addendum) or the construction of new infrastructure or facilities that
 21 would conflict with transportation facilities or conflict with the transportation, traffic, and circulation
 22 plans or policies. Water conservation, crop shifting, groundwater substitution, and reservoir re-operation
 23 to make the transferred water available would not change land uses because the land would continue to be
 24 used for agriculture and cultivation would continue in the same manner as without water transfers.
 25 Although crop idling would change the annual use of land during the water transfer period, over the long-
 26 term the land would continue to be used for agricultural purposes. Because land uses would not change in
 27 the areas that would make the water available for single-year water transfers, the land would continue to
 28 be used for agricultural purposes and would not result in changes to transportation facilities, traffic
 29 patterns or vehicle use, and circulation patterns.

30 Single-year water transfers that occur within the Delta would not result in new or substantially more
 31 severe significant adverse impacts on traffic, transportation, and circulation in the areas that provide or
 32 use the transferred water due to construction activities because construction of infrastructure would not be
 33 anticipated to occur in connection with single-year water transfers. As described in Section 4.1.1,
 34 *Construction Activities and Water Transfers*, in this addendum, single-year water transfers would not

1 result in construction of new facilities in areas that provide the transferred water because there is not
 2 adequate time to construct the facilities following approval of the water transfer before actions must be
 3 implemented to provide the transferred water. Information presented to the Council by DWR and
 4 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
 5 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
 6 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 7 addendum, it would be difficult for purchasers of the transferred water to make long-term development
 8 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
 9 traffic, transportation, and circulation associated with single-year water transfers in the areas that provide
 10 or use the transferred water, and continued exemption of single-year water transfers from the covered
 11 action process would not be a change from existing conditions.

12 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 13 adverse impacts on traffic, transportation, and circulation as compared to the conclusions in the Delta
 14 Plan PEIR, because there would be no change in existing conditions, and single-year water transfers
 15 would continue to be exempt from the definition of a covered action.

16 5.19 Utilities and Service Systems

17 The results of the utilities and service systems impact analysis were presented in Chapter 20 of the Delta
 18 Plan PEIR (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 20-1: Require or result in the construction of new water treatment facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects or require the procurement of additional water supply entitlements?	No	No	No
Impact 20-2: Require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 20-3: Require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects?	No	No	No
Impact 20-4: Generate solid waste that would exceed the permitted capacity of local landfills or cause conflicts with federal, state, and local statutes and regulations related to solid waste?	No	No	No
Impact 20-5: Require or result in the development of new electricity generating facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects?	No	No	No
Impact 20-6: Create a public health hazard from utility disruption?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 20-1 through 20-6:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in utilities and service systems. Based
 10 upon information in the Delta Plan PEIR, information presented to the Council, and results from recent
 11 water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as described in
 12 Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this
 13 addendum, single-year water transfers would not result in new or substantially more severe significant
 14 adverse impacts on utilities and service systems due to changes in land use and construction of facilities
 15 that would increase the demand for utilities and service systems, including water treatment and
 16 distribution, wastewater treatment and disposal, stormwater collection and disposal, solid waste collection
 17 and disposal, and electricity generation and distribution. Single-year water transfers also would not result
 18 in a change in public health hazard from utility disruption because there would be no additional demands
 19 on the utilities and there would be no construction actions that could place existing facilities at risk.

1 The conditions and demands for utilities would not change in the areas that would make the water
2 available for single-year water transfers because over the long-term the land use and population would not
3 change (see Section 5.5, *Land Use and Planning*, and Section 5.15, *Population and Housing*, of this
4 addendum). Water conservation, crop shifting, groundwater substitution, and reservoir re-operation to
5 make the transferred water available would not change land uses because the land would continue to be
6 used for agriculture and cultivation would continue in the same manner as without water transfers.
7 Although crop idling would change the annual use of land during the water transfer period, over the long-
8 term the land would continue to be used for agricultural purposes. Because land uses would not change in
9 the areas that would make the water available for single-year water transfers, the over the long-term, the
10 land would continue to be used for agricultural purposes and population would not increase. Therefore,
11 there would be no risk to physical disruption of utilities services or increase in demand for these services.

12 As described in Section 5.2, *Water Resources*, of this addendum, single-year water transfers would not
13 result in new or substantially more severe significant adverse impacts on surface water supplies and
14 surface water quality in the areas that would make the water available for single-year water transfers or in
15 the Delta because most of the water transfers would be required to comply with existing water quality
16 criteria or not adversely affect existing beneficial uses through loss of water supplies or water quality
17 degradation, and therefore, would not result in need for additional water treatment. As described in
18 Section 4, *Overview of Water Transfers*, of this addendum, water transfers that use SWP and/or CVP
19 conveyance facilities would be implemented to comply with flow and water quality criteria established by
20 the SWRCB, 2008 USFWS biological opinion, and 2009 NMFS biological opinion. Single-year water
21 transfers approved only by the SWRCB would be implemented in a manner that does not result in injury
22 to other legal water users, including protection of surface water supplies and surface water quality for
23 adopted beneficial uses (e.g. water supplies). The number of single-year water transfers that occur within
24 the Delta that do not need to analyze water quality conditions because they do not require approvals by
25 the SWRCB, DWR, or Reclamation would be minimal because most water transfers that occur within the
26 Delta require the use of SWP and/or CVP conveyance facilities. The single-year cross-Delta water
27 transfers that use SWP and/or CVP facilities would not result in new or substantially more severe
28 significant adverse impacts on water supplies or water quality in the Delta because the total volume of
29 transferred water across the Delta (single-year and long-term water transfers) is anticipated to continue to
30 be a minor amount of the water conveyed across the Delta for the SWP and CVP operations, as discussed
31 in Section 4.3, *Recent Cross-Delta Water Transfers*, in this addendum. Therefore, effects due to single-
32 year water transfers on surface water supplies and surface water quality in the areas that provide
33 transferred water and in the Delta would be minimal and additional water treatment facilities would not be
34 needed, and continued exemption of single-year water transfers from the covered action process would
35 not be a change from existing conditions.

36 As described in Section 5.2, *Water Resources*, of this addendum, based upon information in the Delta
37 Plan PEIR, information presented to the Council, and results from recent water transfer CEQA and NEPA
38 documents (Reclamation and SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of*
39 *Results of Similar Programmatic Analyses of Water Transfers*, of this addendum, single-year water
40 transfers would not result in new or substantially more severe significant adverse impacts on groundwater
41 conditions. As discussed in recent water transfer CEQA and NEPA documents (see Section 5.1,
42 *Consideration of Results of Similar Programmatic Analyses of Water Transfers*, of this addendum),
43 changes in local or basin-wide groundwater conditions due to water transfers were determined to be less
44 than significant with implementation of mitigation measures currently included in approval criteria used
45 by DWR and Reclamation (Reclamation and SLDMWA 2014, 2015). As described in Section 4,
46 *Overview of Water Transfers*, of this addendum, detailed analyses of potential groundwater conditions
47 and implementation of groundwater mitigation and monitoring plans if groundwater substitution would be
48 used for water transfers must be completed for water transfers that use SWP and/or CVP conveyance
49 facilities. Single-year water transfers approved only by the SWRCB would be implemented in a manner

1 that does not result in injury to other legal water users, including changes to groundwater conditions, and
 2 also would require analysis of groundwater conditions if groundwater substitution methods would be
 3 used. The number of single-year water transfers that occur within the Delta that do not need to analyze
 4 water quality and the associated need for water treatment plant changes because they would not require
 5 approvals by the SWRCB, DWR, or Reclamation would be minimal because most water transfers that
 6 occur within the Delta would require use of SWP and CVP facilities. Therefore, effects due to single-year
 7 water transfers on groundwater conditions and associated need for additional water treatment in the
 8 Sacramento Valley or the Delta would be minimal and continued exemption of single-year water transfers
 9 from the covered action process would not be a change from existing conditions.

10 Single-year water transfers that occur within the Delta would not result in new or substantially more
 11 severe significant adverse impacts on utilities or services in the areas that provide or use the transferred
 12 water due to construction activities because construction of infrastructure which could disrupt utilities
 13 would not be anticipated to occur in connection with single-year water transfers. In addition, land use
 14 changes are not anticipated due to single-year water transfers in the areas that provide or use the
 15 transferred water, therefore, the demand for utilities and services would not change. As described in
 16 Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, single-year water transfers
 17 would not result in construction of new facilities in areas that provide the transferred water because there
 18 is not adequate time to construct the facilities following approval of the water transfer before actions must
 19 be implemented to provide the transferred water. Single-year water transfers also would not result in
 20 construction of new facilities or community growth in areas that use the transferred water because of the
 21 uncertainty of water availability from year to year. Information presented to the Council by DWR and
 22 SWRCB at the September 24, 2015 Council meeting indicated that the volume of water involved in cross-
 23 Delta water transfers and the capacity to convey the transferred water in the SWP and CVP facilities
 24 varies annually. As described in Section 4.1.1, *Construction Activities and Water Transfers*, in this
 25 addendum, it would be difficult for purchasers of the transferred water to make long-term development
 26 decisions based on this intermittent and variable water supply. Therefore, there would be no effects on
 27 land uses and associated increased demand for utilities or services associated with single-year water
 28 transfers in the areas that provide or use the transferred water, and continued exemption of single-year
 29 water transfers from the covered action process would not be a change from existing conditions.

30 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 31 adverse impacts on land uses and associated increased demand for utilities or services as compared to the
 32 conclusions in the Delta Plan PEIR, because there would be no change in existing conditions, and single-
 33 year water transfers would continue to be exempt from the definition of a covered action.

34 **5.20 Climate Change and Greenhouse Gas Emissions**

35 The results of the climate change conditions and greenhouse gas (GHG) emissions impact analysis were
 36 presented in Chapter 21 of the Delta Plan PEIR (Council 2013a).

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 21-1: Cause construction and operations of projects could result in an increase in GHG emissions that may have a significant impact on the environment?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Would the Project:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Impact 21-2: Cause construction and operations of projects could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs?	No	No	No
Impact 21-3: Cause conflict with operations of proposed facilities due to climate change and sea level rise?	No	No	No

1

2 The Proposed Project would continue to exempt single-year water transfers from the covered action
 3 process; therefore, no change from existing conditions would occur. The Delta Plan determined that
 4 single-year water transfers occurring before December 31, 2016 would not have a significant adverse
 5 impact on the coequal goals. As a result of this determination, such single-year water transfers are not
 6 covered actions within the meaning of Water Code section 85057.5(a)(4) and are not subject to the
 7 covered action process.

8 **Impacts 21-1 through 21-3:** In accordance with CEQA, the Council considered information concerning
 9 whether water transfers could cause significant adverse changes in climate change conditions and GHG
 10 emissions. Based upon information in the Delta Plan PEIR, information presented to the Council, and
 11 results from recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015)
 12 as described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water*
 13 *Transfers*, of this addendum, single-year water transfers would not result in new or substantially more
 14 severe significant adverse impacts that would cause construction or operation of facilities that would
 15 increase GHG emissions, conflict with plans and policies adopted to reduce GHG emissions, or result in
 16 conflicts with plans to manage under climate change and sea level rise related to changes in use of diesel
 17 or natural gas engines for groundwater pumping or changes in land uses that would result in construction
 18 of facilities.

19 Water transfers that require use of SWP and/or CVP conveyance facilities must submit documentation to
 20 DWR and/or Reclamation that verifies the use of electric-powered groundwater pumps for groundwater
 21 substitution, or verifies compliance with California Air Resources Board or local Air Pollution Control
 22 District regulations for diesel or natural gas-powered groundwater pumps. Most water transfers that occur
 23 within the Delta require the use of SWP and/or CVP conveyance facilities and therefore would not result
 24 in new facilities or new sources of GHG emissions. As discussed in recent water transfer CEQA and
 25 NEPA documents (see Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water*
 26 *Transfers*, of this addendum), changes in climate change and GHG emissions due to groundwater
 27 substitution were determined to be less than significant with implementation of mitigation measures
 28 currently included in approval criteria used by DWR and Reclamation for water transfers (Reclamation
 29 and SLDMWA 2014, 2015). Therefore, effects due to single-year water transfers on climate change
 30 conditions and GHG emissions in areas that provide transferred water would be minimal and continued
 31 exemption of single-year water transfers from the covered action process would not be a change from
 32 existing conditions.

1 Single-year water transfers that occur within the Delta would not result in new or substantially more
 2 severe significant adverse impacts related to changes inland uses and associated climate change
 3 conditions and GHG emissions due to activities in the areas that provide or use the transferred water due
 4 to construction activities because construction of infrastructure would not be anticipated to occur in
 5 connection with single-year water transfers. As described in Section 4.1.1, *Construction Activities and*
 6 *Water Transfers*, in this addendum, single-year water transfers would not result in construction of new
 7 facilities in areas that provide the transferred water because there is not adequate time to construct the
 8 facilities following approval of the water transfer before actions must be implemented to provide the
 9 transferred water. Single-year water transfers also would not result in construction of new facilities or
 10 community growth in areas that use the transferred water because of the uncertainty of water availability
 11 from year to year. Information presented to the Council by DWR and SWRCB at the September 24, 2015
 12 Council meeting indicated that the volume of water involved in cross-Delta water transfers and the
 13 capacity to convey the transferred water in the SWP and CVP facilities varies annually. As described in
 14 Section 4.1.1, *Construction Activities and Water Transfers*, in this addendum, it would be difficult for
 15 purchasers of the transferred water to make long-term development decisions which could change GHG
 16 emissions based on this intermittent and variable water supply. Therefore, there would be no effects on
 17 climate change conditions and GHG emissions associated with single-year water transfers in the areas that
 18 provide or use the transferred water, and continued exemption of single-year water transfers from the
 19 covered action process would not be a change from existing conditions.

20 **Summary:** Single-year water transfers would not result in new or substantially more severe significant
 21 adverse impacts on climate change conditions and GHG emissions as compared to the conclusions in the
 22 Delta Plan PEIR, because there would be no change in existing conditions, and single-year water transfers
 23 would continue to be exempt from the definition of a covered action.

24 **5.21 Mandatory Findings of Significance**
 25

Environmental Analysis in the Delta Plan PEIR - Mandatory Findings of Significance:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Item 1: Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No	No	No

Environmental Analysis in the Delta Plan PEIR - Mandatory Findings of Significance:	Does the Proposed Project Result in New or Substantially More Severe Significant Impacts?	Are there Changed Circumstances Related to New Significant or Substantially More Severe Impacts?	Are there Additional Mitigation Measures that would Substantially Reduce Impacts?
Item 2: Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No	No	No
Item 3: Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No

1

2 **Item 1:** As described in Sections 5.2 through 5.20 of this addendum, single-year water transfers would
 3 not cause long-term changes in environmental resources, including biological resources or cultural
 4 resources. Single-year water transfers that occur within the Delta would not result in new or substantially
 5 more severe significant adverse impacts on biological resources because most of the water transfers
 6 would be required to avoid substantial adverse effects on biological resources, as described in Section 5.3,
 7 *Biological Resources*, of this addendum. Single-year water transfers would not result in changes in land
 8 use or construction of new facilities and associated changes in biological resources and cultural resources,
 9 including important examples of the major periods of California history or pre-history. Crop idling would
 10 change the annual use of land during the water transfer period; however, these changes would be similar
 11 to ongoing patterns of crop idling due to land management and responses to agricultural markets. Long-
 12 term land use would not be changed due to single-year water transfers. Therefore, there would be no
 13 effects on biological and cultural resources associated with single-year water transfers in the areas that
 14 provide or use the transferred water, and continued exemption of single-year water transfers from the
 15 covered action process would not be a change from existing conditions.

16 **Item 2:** The Council considered information concerning whether water transfers could cause significant
 17 adverse cumulative effects. Based upon information in the Delta Plan PEIR, information presented to the
 18 Council, and results from recent water transfer CEQA and NEPA documents (Reclamation and
 19 SLDMWA 2014, 2015) as described in Section 5.1, *Consideration of Results of Similar Programmatic*
 20 *Analyses of Water Transfers*, of this addendum, single-year water transfers would not result in new or
 21 substantially more severe significant adverse impacts on cumulative effects related to changes in the
 22 environmental resources, including water supplies and biological resources. As described in Sections 5.2
 23 through 5.20 of this addendum, single-year water transfers would not cause long-term changes in
 24 environmental resources. Single-year water transfers that would occur within the Delta were considered in
 25 a cumulative impact analysis with past, present, and probable future projects as identified in Table 22-1 in

1 the Delta Plan PEIR (Council 2013a) and other water transfer projects including multi-year water
2 transfers as described in the Long-Term Water Transfer EIS/EIR (Reclamation and SLDMWA 2015).

3 As described in Sections 5.2 through 5.20 of this addendum, single-year water transfers would not result
4 in changes in land use or construction of facilities that would result in new or substantially more severe
5 significant adverse impacts on incremental and cumulative impacts, and continued exemption of single-
6 year water transfers from the covered action process would not be a change from existing conditions.

7 As described in Section 5.3, *Biological Resources*, of this addendum, single-year water transfers would
8 not result in new or substantially more severe significant adverse impacts on biological resources because
9 most of the water transfers that would occur within the Delta would be required to avoid substantial
10 adverse effects on biological resources. Similarly, other projects, including other water transfer programs,
11 also would be required to comply with existing criteria established by the State and federal government
12 agencies to protect biological resources, including the 2008 USFWS and 2009 NMFS biological opinions.
13 Therefore, single-year water transfers would not cause changes in biological resources that would result
14 in new or substantially more severe significant adverse impacts on incremental and cumulative impacts,
15 and continued exemption of single-year water transfers from the covered action process would not be a
16 change from existing conditions.

17 Cumulative effects also were considered with respect to the use of groundwater substitution to make
18 water available for single-year water transfers and groundwater conditions in the Sacramento Valley.
19 Overall groundwater use in the Sacramento Valley increased between 1989 and 2013 from approximately
20 1,700,000 acre-feet/year to over 2,500,000 acre-feet/year (DWR 2013, 2015). Groundwater substitution
21 was used for 6 of the 13 years between 2001 and 2013. In those 6 years, groundwater substitution
22 represented 5 percent or less of the total amount of groundwater pumped in the Sacramento Valley. As
23 described in Section 5.2, *Water Resources*, of this addendum, based upon information in the Delta Plan
24 PEIR, information presented to the Council, information prepared by DWR (2013, 2015), and results
25 from recent water transfer CEQA and NEPA documents (Reclamation and SLDMWA 2014, 2015) as
26 described in Section 5.1, *Consideration of Results of Similar Programmatic Analyses of Water Transfers*,
27 of this addendum, single-year water transfers would not result in new or substantially more severe
28 significant adverse impacts on groundwater conditions because single-year water transfers that use SWP
29 and/or CVP conveyance facilities must include detailed groundwater analyses and groundwater mitigation
30 and monitoring plans if groundwater substitution would be used. Single-year water transfers approved
31 only by the SWRCB would be implemented in a manner that does not result in injury to other legal water
32 users, including changes to groundwater conditions, and also would require analysis of groundwater
33 conditions if groundwater substitution methods would be used. The number of single-year water transfers
34 that occur within the Delta that do not need to analyze groundwater conditions because they would not
35 require approvals by the SWRCB, DWR, or Reclamation would be minimal because most water transfers
36 that occur within the Delta would require use of SWP and CVP facilities. Therefore, single-year water
37 transfers that occur within the Delta would not result in new or substantially more severe significant
38 adverse impacts on incremental and cumulative impacts, and continued exemption of single-year water
39 transfers from the covered action process would not be a change from existing conditions.

40 Future climate change conditions are anticipated to increase the frequency and extent of dry periods in
41 California which could increase the demand for water transfers both upstream of the Delta and across the
42 Delta. Cumulative effects of additional multi-year water transfers and continued use of single-year water
43 transfers could be similar to those analyzed in recent environmental documents that analyzed water
44 transfers (Reclamation and SLDMWA 2014, 2015). These documents identified potential cumulative
45 effects due to climate change which could result in a greater need for water transfers as well as less
46 surface water and groundwater supplies. These documents identified that water transfers would not result
47 in adverse cumulative effects because most single-year water transfers and all multi-year water transfers
48 would be required to complete detailed analyses of surface water, groundwater, biological resources, and

1 other environmental resources and develop appropriate mitigation measures and monitoring plans, as
2 described in Sections 5.2 through 5.20 of this addendum. There would be a minor number of single-year
3 water transfers that occur within the Delta that do not need to analyze environmental conditions because
4 they would not require approvals by the SWRCB, DWR, or Reclamation; however, these types of water
5 transfers would be minimal because most water transfers that occur within the Delta would require use of
6 SWP and/or CVP facilities which would require DWR and/or Reclamation approval. In general, water
7 transfers that occur within the Delta would be limited by the ability to convey water across the Delta in
8 the SWP and/or CVP conveyance facilities, as described in Section 4.2.3, *Department of Water Resources*
9 *and Bureau of Reclamation Processes for Cross-Delta Water Transfers*, of this addendum. The recently
10 approved multi-year water transfer could result in limited capacity in the SWP and/or CVP conveyance
11 facilities for future single-year water transfers or other multi-year water transfers. These and other
12 limitations on water transfers would result in the use of water transfers as only a small portion of the total
13 water supply actions in California. Other water supply future options in California would include local
14 surface water supplies, groundwater supplies, regional water supplies which involve long-term
15 conveyance of water from the Sierra Nevada to portions of the San Francisco Bay Area and southern
16 California, Colorado River water supplies for portions of southern California, recycled wastewater
17 effluent and stormwater flows, desalination, and water supplies provided by the SWP and CVP. These
18 types of projects would require separate environmental documentation to determine environmental effects
19 of the future actions. Therefore, single-year water transfers would not cause changes in environmental
20 resources that would result in new or substantially more severe significant adverse impacts on incremental
21 and cumulative impacts, and continued exemption of single-year water transfers from the covered action
22 process would not be a change from existing conditions.

23 **Item 3:** As described in Sections 5.2 through 5.20 of this addendum, single-year water transfers would
24 not cause long-term changes in environmental resources that affect human beings. Single-year water
25 transfers would not result in changes in land use or construction of new facilities, or in changes to
26 potentially related environmental resources including water supplies, flood risk, visual resources, air
27 quality, climate change conditions, GHG emissions, cultural resources, geology and soils, paleontological
28 resources, mineral resources, hazards, noise, population and housing, public services and utilities,
29 recreation, or transportation. Therefore, there would be no effects on human beings associated with
30 single-year water transfers in the areas that provide or use the transferred water, and continued exemption
31 of single-year water transfers from the covered action process would not be a change from existing
32 conditions.

33 6 References

- 34 Cooper (Cooper, Dustin C.). 2015. *Single-Year Water Transfers and the Delta Plan*. September 24.
- 35 Council (Delta Stewardship Council). 2013a. *Final Delta Plan Program Environmental Impact Report*.
36 May.
- 37 Council (Delta Stewardship Council). 2013b. *The Delta Plan*.
- 38 DWR (California Department of Water Resources). 2013. *Status of Water Transfers in California*.
- 39 DWR (California Department of Water Resources). 2015. *Water Transfers*. September 24.
- 40 DWR (California Department of Water Resources). 2016. *Dayflow Data Through Water Year 2015*.
41 Website accessed April 21, 2016 at <http://www.water.ca.gov/dayflow/output/Output.cfm>.
- 42 DWR and Reclamation (California Department of Water Resources and Bureau of Reclamation). 2015.
43 *Draft Technical Information for Preparing Water Transfer Proposals (Water Transfer White*

1 *Paper), Information for Parties Preparing Proposals for Water Transfers Requiring Department*
2 *of Water Resources or Bureau of Reclamation Approval.* December.

3 DWR and SWRCB (California Department of Water Resources and State Water Resources Control
4 Board). 2015a. *Background and Recent History of Water Transfers in California.* July.

5 DWR and SWRCB (California Department of Water Resources and State Water Resources Control
6 Board). 2015b. *Water Transfers and the Delta Plan. A Report to the Delta Stewardship Council.*
7 September.

8 Herbold (Herbold, Bruce, PhD). 2015. Slides presented at the September 24, 2015 Council Meeting.
9 September 24.

10 NMFS (National Marine Fisheries Service). 2009. *Biological Opinion and Conference Opinion on the*
11 *Long-Term Operations of the Central Valley Project and State Water Project.* June.

12 Reclamation (Bureau of Reclamation). 2008. *Biological Assessment on the Continued Long-term*
13 *Operations of the Central Valley Project and the State Water Project.* August.

14 Reclamation (Bureau of Reclamation). 2014. *Draft Environmental Assessment, Contra Costa Water*
15 *District Transfer with Alameda County Water District, EA-14-028.* May.

16 Reclamation (Bureau of Reclamation). 2015. *Coordinated Long-Term Operation of the Central Valley*
17 *Project and State Water Project. Final Environmental Impact Statement.* November.

18 Reclamation and SLDMWA (Bureau of Reclamation and San Luis & Delta-Mendota Water Authority).
19 2014. *Revised Environmental Assessment/Initial Study, 2014 San Luis & Delta-Mendota Water*
20 *Authority Water Transfers.* October.

21 Reclamation and SLDMWA (Bureau of Reclamation and San Luis & Delta-Mendota Water Authority).
22 2015. *Long-Term Water Transfers Environmental Impact Statement/Environmental Impact*
23 *Report, Final.* March.

24 TNC (The Nature Conservancy). 2015. *Ecological Considerations for Water Transfers, A Presentation to*
25 *the Delta Stewardship Council.* September 24.

26 USFWS (U. S. Fish and Wildlife Service). 2008. *Biological Opinion on the Coordinated Operations of*
27 *the Central Valley Project and State Water Project in California.* December.