

# **Water Transfers and the Delta Plan**

A Report to the Delta Stewardship Council  
September 16, 2015

Prepared by the Department of Water Resources in consultation with  
the State Water Resources Control Board

## Table of Contents

Executive Summary .....	2
1. Introduction .....	5
2. Basic Legal Rules Regarding Water Transfers .....	6
a. No Injury to any Legal User of Water .....	6
b. The Transfer Must Not Unreasonably Affect Fish and Wildlife .....	8
c. The Transfer Must Not Unreasonably Affect the Overall Economy or the Environment of the County from which the Water is Transferred ..	9
3. Process and Roles with Regard to Temporary Water Transfers .....	10
a. Post-1914 Water Rights .....	12
b. Contractor-to-Contractor .....	12
c. Pre-1914 Water Right ..	12
4. Reducing Procedural and Administrative Impediments .....	13
a. Progress on Clarifying the Process to Promote Responsible Water Transfers .....	13
b. Progress on Expediting the Processing of Water Transfers for Drought Relief and Beyond .....	15
5. Progress on Working with Stakeholders Issues in 2014 and 2015 .....	17
6. Protecting Water Rights and the Environment .....	19
a. Environmental Considerations in the Delta – Timing of Water Transfers .....	20
b. Water Quality Issues in the Delta and Carriage Water Requirements .....	21
c. Protecting the Giant Garter Snake – ESA and Recent Studies .....	21
d. Progress on Specific Issues in 2014 and 2015 .....	22
7. Avoiding Potential Issues with Recurring Temporary Transfers .....	25
8. Progress in Promoting the Transparency of Water Transfers in General and in the Notification of Specific Proposed Water Transfers .....	27
a. Websites to find more information about Water Transfers – Past and Current ..	27
b. Water Transfers in 2014 and 2015 .....	29
Tables and Figures	
Table 1 .....	31
Figure 1 .....	32
Figure 2 .....	33
Attachments	
Attachment 1 .....	34
Attachment 2 .....	37

## Executive Summary

The Delta Stewardship Council, both in its regulations and in companion recommendations contained in the 2013 Delta Plan, WR 15, called upon the Department of Water Resources (DWR) and the State Water Resources Control Board (State Water Board) to work with stakeholders to improve the water transfer process by identifying and recommending measures to reduce procedural and administrative impediments to water transfers, and protect water rights and environmental resources.

Under the Council's water transfer regulation, which the Council refers to as an "interim rule," temporary water transfers of up to one year in duration do not have a significant impact on the coequal goals and, thus, are not "covered actions" under the Delta Reform Act:

...This provision remains 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 DWR and the State Water Board's participation with stakeholders to identify and implement transfer measures, as recommended in WR R15.<sup>1</sup>

Since the Delta Plan and regulations were adopted in 2013, DWR and the State Water Board have been working very successfully with numerous water transfer stakeholders to address the water transfer regulation and WR R15 of the Delta Plan. Significant progress has been made. This report presents a brief discussion of the requirements governing water transfers and a summary of DWR and the State Water Board's efforts.

A water transfer involves a change in the place of use, point of diversion or purpose of use to a new location either within or outside the watershed of origin. Water transfers can be an effective water management tool, particularly in times of drought, but they must be responsible transfers. Generally, existing Water Code provisions require that transfers must be accomplished 1) without injuring any other legal user of water, 2) without unreasonably affecting fish and wildlife, and 3) without unreasonably affecting the overall economy or environment of the county from which the water is being transferred, in the case of transfers using a state or local agency's conveyance facility. Assuring that transfers are responsible requires a careful review of each proposal with information sufficient to determine that the requirements are met. The existing statutory requirements represent a balance between streamlining the process and assuring adequate review to protect other users and the environment. In addition, compliance with other environmental laws such as the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), and the federal and State Endangered Species Acts (ESA and CESA) may also be required. Since 2013, DWR, the State Water Board and the United States Bureau of Reclamation (USBR) have made progress in some key areas to improve and streamline the transfer process.

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<sup>1</sup> California Code of Regulations, Title 23, Section 5001(dd)(3).

- Public Education

DWR and the State Water Board have made considerable progress in educating the parties involved about the legal requirements for water transfers, as well as the technical aspects of how to successfully develop a water transfer that protects water rights and the environment. The State Water Board's foundational Guide to Water Transfers, and DWR and USBR's jointly prepared Water Transfers White Paper provide information on the transfer process. In addition DWR and the State Water Board have launched and expanded websites with information on the water transfer process and resources available to aid in developing transfer proposals. These websites also provide information on approved water transfers.

- Stakeholder Outreach

On April 29, 2014, the staff of the State Water Board and DWR held a joint listening session to solicit recommendations to streamline the review process for temporary water transfers. The listening session, which was also webcast, provided background information on water transfers and solicited suggestions for improvements. Twenty-five stakeholders attended the listening session. In addition, the agencies have held meetings with stakeholders in a continuing effort to clarify technical information regarding water transfers and discuss current issues. During several weeks in the late summer of 2014, DWR's consultant met with various stakeholders, representing both the sellers and buyers of water, on a one-on-one basis to have candid discussions about what the stakeholders believed worked well over the 2014 water transfer period, and to solicit their views on how the water transfer process could be improved. As a result of these meetings and the larger stakeholder meeting, specific areas were identified where improvements could be made. These issues have been evaluated by DWR. DWR worked with both USBR and the State Water Board to resolve most of the issues by February 2015.

In 2014 and 2015, both USBR and DWR executive management assigned specific personnel to work on the resolution of these issues. Many stakeholders have commented that this increased early involvement on the part of executive management has streamlined the review of some of the atypical transfers.

- Interagency Coordination

Since January 2014, the State Water Board, DWR, USBR and the State and federal Fishery Agencies water transfer staff have been meeting regularly to share knowledge and exchange information about the water transfers being proposed or likely to be proposed. During critical periods, these agencies meet once or twice a week to resolve outstanding issues. The information provided by the parties proposing the transfer is reviewed by State Water Board, USBR and DWR staff and additional information is gathered by these agencies, as needed, in their evaluation of the proposed transfer. All proposed water transfers are discussed

by the interagency team. At the interagency team meetings, specific fishery or wildlife issues are also discussed to provide early notice to the resource agencies to allow more time to consider the proposal and any potential impacts to fish and wildlife. This sharing of knowledge has helped these agencies in their review of water transfers and has greatly expedited the process.

- Water Rights and Resource Protection

DWR, USBR and the State Water Board evaluate each transfer to assure that the proposal will develop new water to the system in order to protect other legal users of water and the environment. This review follows the process outlined in the White Paper and the Water Transfer Guide. The information in those documents is updated as new information becomes available and as new transfer issues arise. Early involvement of the State and federal resource agencies has been initiated to address any potential concerns related to impacts to the environment early in the transfer process.

As the need arises, DWR and USBR focus special attention and resources on specific issues of concern. In 2014, DWR focused special attention on two specific water transfer related issues: (1) remnant vegetation in crop idling transfers (in compliance with Water Code Section 1018), and (2) stream flow depletions due to groundwater substitution transfers (to take advantage of new modeling efforts). Progress was made on both issues.

To address concerns related to streamflow depletion, DWR and USBR have initiated development of a new modeling tool to more accurately estimate an appropriate streamflow depletion factor for individual transfer proposals. In addition, DWR and USBR have developed a Sacramento Valley Stream Flow Depletion Factor Management Group, composed of key stakeholders in the Sacramento Valley and the areas south and west of the Delta, to provide management and technical guidance to the groundwater modeling improvements being undertaken by DWR and the State Water Contractors. This Management Group first met on February 25, 2015, and these meetings are continuing.

DWR, USBR and the State Water Board have all initiated efforts in the past several years to develop tools to help stakeholders develop a better understanding of how to structure responsible transfers, improve transparency and responsiveness to stakeholder concerns regarding transfers and required actions to avoid injury to other legal users of water as well as actions to avoid unreasonable effects on fish and wildlife and the overall economy of the counties from which the water is transferred. The agencies have also enhanced interagency coordination which allows early discussion of any potential areas of concern and helps to expedite transfer review. DWR and the State Water Board are committed to continue working with stakeholders to address issues as they arise and to develop new tools to streamline the process.

## **1. Introduction**

The Delta Stewardship Council, both in its regulations and in companion recommendations contained in the 2013 Delta Plan, called upon the Department of Water Resources (DWR) and the State Water Resources Control Board (State Water Board) to work with stakeholders to improve the water transfer process.

Under the Council's water transfer regulation, which the Council refers to as an "interim rule," temporary water transfers of up to one year in duration do not have a significant impact on the coequal goals and, thus, are not "covered actions" under the Delta Reform Act:

...This provision remains 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 DWR and the State Water Board's participation with stakeholders to identify and implement transfer measures, as recommended in WR R15.<sup>2</sup>

The 2013 Delta Plan included a companion recommendation on water transfers, WR R15, which also provides:

The California Department of Water Resources and the State Water Resources Control Board should work 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.<sup>3</sup>

Since the Delta Plan and regulations were adopted in 2013, DWR and the State Water Board have been working very successfully with numerous water transfer stakeholders to address the water transfer regulation and WR R15 of the Delta Plan. Significant progress has been made. The purpose of this report is to present a brief summary of these efforts.

This report is organized to address the issues expressed by the Delta Stewardship Council, as follows: (a) basic legal rules regarding water transfers, (b) process and roles with regard to temporary water transfers, (c) reducing procedural and administrative impediments to water transfers, (d) working with stakeholders, (e) protecting water rights and the environment, and (f) avoiding potential issues with recurring temporary (one year or less) transfers.

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<sup>2</sup> California Code of Regulations, Title 23, Section 5001(dd)(3).

<sup>3</sup> See page 106 of the 2013 Delta Plan.

## **2. Basic Legal Rules Regarding Water Transfers**

In order to appreciate the “issues that need to be addressed with transfers of up to one year or less in duration,” it is important to have a basic understanding of the water rights principles that govern water transfers. From a water rights perspective, a water transfer is a change in the place of use, point of diversion or purpose of use of an existing appropriative water right from that authorized in the water right.<sup>4</sup> The new place of use for the transfer is often a different watershed, the point of diversion is far from the typical points of diversion for that water right holder, and the purpose of use can be different, such as a change from irrigation to municipal use. In some cases, a water transfer can be one element of a water exchange where there may not be a direct hydraulic connection between the original source of the water and the ultimate end user. In other words, several trades may be involved between different water users in order to get water to the final location where it is needed. In such cases, it is important from a water rights perspective to “follow the water” actually being moved and not the trades or exchanges that the transfer makes possible. Many water transfers include all three types of changes.

There are three basic rules in California water rights law that govern almost all water transfers. These are, in summary: (1) the transfer must not injure any legal user of water, (2) the transfer must not unreasonably affect fish and wildlife, and (3) if the transfer requires the use of state or local conveyance facilities, the transfer must not unreasonably affect the environment or the overall economy of the county from which the water is transferred. These legal principles, and the water users to whom they apply, are discussed briefly below.

### **a. No Injury to any Legal User of Water**

For all water rights (including both pre-1914 and post-1914 appropriative water rights), a change to an existing water right must not injure any legal user of water.<sup>5</sup> This principle, referred to as the “no injury rule,” prohibits injury to other legal users of water (both junior and senior users), caused by a change in place or purpose of use or point of diversion for any reason, including changes necessary to facilitate a water transfer. A water transfer could cause injury to other legal users of water, for example, by reducing the net downstream flow or attempting to transfer previously abandoned flows that otherwise would have been available to other water users absent the transfer. The “no injury rule” is not a new principle, rather it is rooted in historic court doctrine dating back to the early days of California statehood. The “no injury rule” was codified in 1914 and, as indicated above, applies to both pre-1914 and post-1914 water rights.

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<sup>4</sup> Riparian water rights attach to the riparian land abutting the watercourse and cannot be transferred from those lands except for instream flow purposes under Water Code Section 1707.

<sup>5</sup> See Water Codes Sections 1702 and 1706.

- Understanding the “No Injury Rule”

Water rights are usufruct rights. This concept applies to all types of water rights and means that they are not physical ownership rights to the water, rather they are the right to use the water. This right of use is subject to requirements set forth in the State’s constitution (amplified by statutes, regulations and court decisions) to use the water in a manner that is not wasteful or unreasonable. Water rights can be lost through non-use and they are diversion rights, rather than consumptive use rights. The water rights conditions also (1) determine whether water can be either directly diverted to use or diverted to storage for later use, (2) identify the maximum that can be diverted or appropriated (either by rate or volume or both), and (3) take into account the places and purposes of use. In most years, the maximum amount specified in the water right is not diverted and used due to hydrologic conditions, demands within the place of use, or other restrictions and remains in the water supply for others to use downstream. In addition, while a diverter is typically not required to return unused water back to the source, in many cases a significant portion of the water diverted is returned to the watercourse. This return flow contributes to the water supply and often represents a significant portion of the water supply for other legal users downstream.

In California, particularly in the Sacramento and San Joaquin River watersheds, during the entire summer in all but the wettest of years, and through most of the fall, any water not appropriated upstream and any return flows make up the water supply available to other water users downstream. In the Sacramento and San Joaquin River watersheds, the water supply is typically fully allocated during the typical transfer period and, there is insufficient natural water supply to meet Delta Water Quality standards or flow requirements. The CVP and SWP are typically making supplemental storage releases to maintain Delta water quality and flow requirements during such periods. If a water right holder was allowed to transfer the unused portion of their water right or their return flows, such a transfer could injure other legal users of water downstream by further depleting the available supply. Parties most susceptible to injury include DWR and USBR due to their obligations to meet regulatory requirements in the Delta as operators of the State Water Project (SWP) and Central valley Project (CVP) respectively.

The best way to develop a water transfer that does not injure other legal users of water is to develop “new water” to the system, that is, water that would not be there absent the water transfer. Some common methods for generating new water include reducing consumptive use by taking crops out of production, using water from another source such as groundwater, or

releasing water from storage that would otherwise remain in storage. Water transfers involving post-1914 water rights are reviewed carefully by the State Water Board to ensure that they do not cause injury to other legal uses of water.<sup>6</sup> Other water users are also provided an opportunity to review and comment on proposed water transfers involving post -1914 water rights through the State Water Board public noticing process.

For transfers that rely on conveyance through SWP or CVP facilities, (transfers through the Delta) the operators of these projects (DWR and USBR) conduct an independent review of water transfers to evaluate possible injury, develop conveyance agreements and ensure that contract provisions are met. DWR must comply with the provisions of Water Code Section 1810 *et seq.* (discussed below.)

#### **b. The Transfer Must Not Unreasonably Affect Fish and Wildlife**

The second rule applies to post-1914 water users for both temporary transfers (transfers of one year or less) under Water Code Section 1725 *et seq.*, and long-term water transfers under Water Code Section 1735 *et seq.* This second rule also applies if the transfer water is conveyed by a State, local or regional agency as provided in Water Code Section 1810 *et seq.* Specifically, Water Code Section 1810 *et seq.* requires that unused conveyance capacity must be provided for a *bona fide* transfer if the State, local or regional agency can convey the transfer water without unreasonably affecting fish, wildlife or other instream beneficial uses (as well as without injuring other legal users of water and without unreasonably affecting the overall economy or the environment of the county from which the water is being transferred).

The State Water Board and DWR (if DWR conveys the transfer water) must independently evaluate the water transfer and find that fish and wildlife will not be “unreasonably affected,” in order to approve the transfer. This requires the petitioner for a water transfer to provide the information necessary for the State Water Board and the agency conveying the water to make that finding. DWR and the State Water Board coordinate during the review of the water transfer proposals, but must make their own independent findings as required by the Water Code. In addition, the Department of Fish and Wildlife (CDFW) receives a copy of the transfer petition and may provide comments.

Long-term water transfers are subject to the California Environmental Quality Act (CEQA). Post-1914 water transfers of up to one year in duration are statutorily exempt from CEQA under Water Code Sections 1725 to 1729 and Section 15282

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<sup>6</sup> For more detailed discussion, see “Water Transfer Approval: Assuring Responsible Transfers” prepared by David B. Anderson, July 25, 2011.

[http://www.water.ca.gov/watertransfers/docs/responsible\\_water\\_transfers\\_2012.pdf](http://www.water.ca.gov/watertransfers/docs/responsible_water_transfers_2012.pdf)

of the CEQA Guidelines, but the State Water Board still requires an analysis of any Petition for Change filed under Water Code Section 1725 *et seq.* that is adequate to support the findings of no injury and no unreasonable effects on fish and wildlife, in order to approve the transfer. This provides for an expedited process but assures that potential impacts to other legal users and effects to fish and wildlife are still evaluated.

In the past few years, a significant number of water transfers were CVP contractor-to-contractor transfers and were implemented consistent with the federal Biological Opinions (BiOps) issued pursuant to the Endangered Species Act (ESA), which govern SWP and CVP operations, and all other CVP regulatory obligations. These types of water transfers do not require State Water Board approval because they are completed within the provisions of the CVP water rights. However, these transfers are subject to CEQA and the National Environmental Policy Act (NEPA), and thus include evaluation of impacts to biological resources and a determination as to whether the proposed action has the potential to cause significant effects. If SWP facilities are used to convey water transferred between the CVP contractors, DWR is a responsible agency under CEQA and uses the information in the CEQA analysis to evaluate the transfer to support its evaluation and the findings required under Water Code Section 1810 *et seq.* If CVP facilities are used, USBR is the lead agency under NEPA. USBR recently certified an EIS/EIR for Long-term Water Transfers to comply with both NEPA and CEQA requirements for proposed transfers that are within the scope of that document.<sup>7</sup>

**c. The Transfer Must Not Unreasonably Affect the Overall Economy or the Environment of the County from which the Water is Transferred**

The third rule applies to water transfers conveyed by a State, local or regional agency, including the facilities of the SWP. As previously discussed, Water Code Section 1810 *et seq.* requires any State, local or regional agency to allow its excess capacity to be used to convey water transfers of others, provided that the agency making the conveyance capacity available finds (in addition to finding that the transfer would not injure other legal users of water, and would not unreasonably affect fish, wildlife or other instream beneficial uses), that the transfer would not unreasonably affect the overall economy or the environment of the county from which the water is transferred. In addition, the State Water Board may consider and require mitigation of potential economic impacts of a transfer that requires State Water Board approval pursuant to the Board's broad authority to consider the public interest when administering water rights. (See Water Code Section 1253).

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<sup>7</sup> [http://www.usbr.gov/mp/nepa/nepa\\_projdetails.cfm?Project\\_ID=18361](http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=18361)

The economic effects evaluation required by Water Code Section 1810 *et seq.* is not a person-by-person evaluation or a “third party” evaluation, but a countywide assessment. The Draft EIS/EIR for the Environmental Water Account (EWA) developed by DWR and USBR in 2008 included an economic effects assessment for counties in the Sacramento Valley. This evaluation found that, even for the most agricultural dominated counties, a crop idling program where 20 percent or less of the agricultural land was taken out of production would keep economic impacts to these rural counties within the range of past economic fluctuations.<sup>8</sup> In addition, Water Code Section 1745.05(b) effectively limits fallowing:

The amount of water made available by land fallowing may not exceed 20 percent of the water that would have been applied or stored by the water supplier in the absence of any contract entered into pursuant to this article in any given hydrological year, unless the agency approves, following reasonable notice and a public hearing, a larger percentage.

California State law encourages water transfers,<sup>9</sup> but, the law also strikes a balance and provides protections for other legal users, the public interest and public trust resources. In addition to the Water Code provisions that govern water transfers, numerous environmental laws apply to transfers, including CEQA, NEPA, the Central Valley Project Improvement Act (CVPIA), ESA/California ESA (CESA). Many of the challenges involved with water transfers relate to developing and evaluating them in a way that meets all of these legal requirements.

### **3. Process and Roles with Regard to Temporary Water Transfers**

There are many parties involved in developing and approving water transfers. There are, of course, the buyers and the sellers, which are typically public water agencies, irrigation districts or mutual water companies. The buyers sometimes form buyer groups to help reduce transaction costs.

It takes time for the parties to develop the details of a proposed temporary water transfer, due mostly to the uncertainty about hydrologic conditions. The amount of water that a given seller may want to make available is dictated in part by the dryness of the year. The hydrologic conditions are not typically known until March or later. Buyers typically do not know their water allocations from their normal supplier of water until about this same time frame. In addition, excess conveyance capacity for water transfers at the Delta pumping facilities of the SWP or CVP is generally available only in dry years. DWR and USBR typically cannot make an initial forecast of the conveyance capacity available for water transfers until early March, and that forecast may change based on what happens later in the spring.

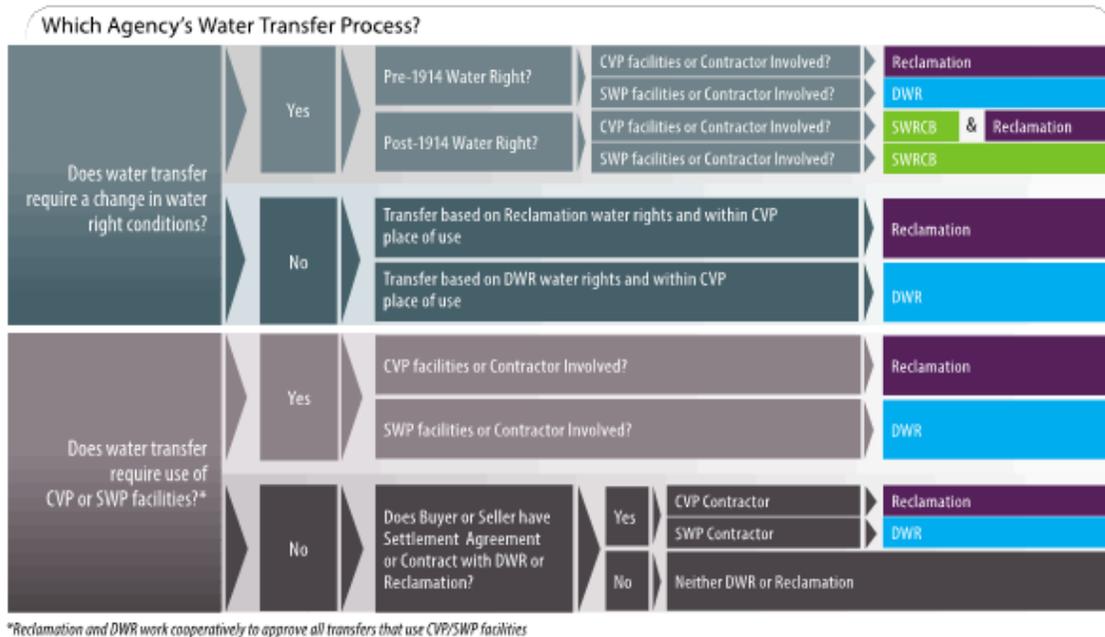
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<sup>8</sup> See EWA Final EIR/EIS dated 2008, Section 16.2

<sup>9</sup> See Water Code Sections 109 and 475.

Given these basic hydrologic realities, most temporary water transfer agreements are not negotiated until late March, and sometimes even later. The buyers and sellers typically need the conveyance approvals by April or early May. For post-1914 water rights, the legislature has provided for an expedited process under Water Code 1725 *et seq.*, which requires the State Water Board to quickly evaluate and act on petitions for temporary water transfers. Action by the State Water Board occurs within 45 to 65 days of the petition receipt (30 to 50 days if the petition qualifies for a reduced noticing period). For contractor-to-contractor water transfers, DWR and USBR have been able to act on a completed application within a few weeks if, as recommended, the parties have coordinated with these agencies during the development of the application. One challenge that has delayed some proposed water transfers is the late submittal by the applicant of the information needed for DWR and USBR to act on the application. The information necessary for DWR and USBR to evaluate a transfer is described in the Water Transfer White Paper.<sup>10</sup>

The State Water Board, DWR and USBR give the processing of temporary water transfers a very high priority. The issues that must be addressed are complex, and the Water Code procedural time frame is short. As will be discussed in more detail later, State Water Board, DWR and USBR staffs work in close coordination with the State and federal Fishery Agencies to complete this review in a timely fashion. DWR and Reclamation developed a general water transfer process flowchart to aid buyers and sellers in understanding the transfer review processes, as shown below.



<sup>10</sup> See [http://www.water.ca.gov/watertransfers/docs/2015\\_Water\\_Transfer\\_White\\_Paper.pdf](http://www.water.ca.gov/watertransfers/docs/2015_Water_Transfer_White_Paper.pdf)

There are several types of temporary transfers, depending on the type of water right involved.

**a. Post-1914 Water Rights**

Water transfers involving changes to post-1914 water rights require State Water Board approval. Water Code Section 1725 *et seq.* provides an expedited process for post-1914 temporary (one year or less) water transfers, including a statutory exemption from CEQA (Water Code Section 1729 and CEQA Guidelines Section 15282). Although CEQA compliance is not required for temporary water transfers, the State Water Board requires an analysis to support the requisite findings, as previously discussed, in order to evaluate and approve the transfer. If the water transfer involves water contractors of either the CVP or the SWP, or the use of facilities of those projects, then approval is needed from USBR or DWR respectively. If the facilities of both Agencies are required to complete the transfer, the approval of both Agencies would be required. CDFW, U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) (State and federal Fishery Agencies) are given the opportunity to discuss the transfers in the interagency coordination meetings (described below), both prior to and during the evaluation process.

**b. Contractor-to-Contractor**

Historically, most temporary transfers have been transfers of water between federal CVP contractors. This type of water transfer does not require State Water Board approval, unless the point of diversion, purpose of use, or place of use under the CVP water rights needs to be changed to accomplish the transfer. Assuming that the water right does not need to be modified, these types of transfers still require the approval of USBR and compliance with NEPA and/or CEQA, and with Water Code Section 1810 *et seq.* if DWR conveys the water.

**c. Pre-1914 Water Right**

Pre-1914 water rights are not under the permitting authority of the State Water Board. Thus, pre-1914 water right holders are not required to petition the State Water Board to change the place of use under their right to transfer water. A pre-1914 water right holder can change the point of diversion, purpose of use, or place of use, if others are not injured by such change in accordance with Water Code Section 1706. As with any other transfer, if the water transfer involves the use of CVP or SWP facilities then approval is needed from USBR or DWR respectively. Also, compliance with NEPA and/or CEQA, as appropriate, is needed, and the provisions of Water Code Section 1810 *et seq.* must be met if DWR conveys the water.

There is one situation where a pre-1914 water right holder may choose to petition the State Water Board. That is for a change for the dedication of pre-1914 water to instream use under Water Code section 1707. In this case, there are benefits from using the statutory process which involves notification of all potential diverters within the instream-use reach of the stream that a portion of the water has been dedicated for instream use and is unavailable for diversion. Obtaining State Water Board approval of the change could also protect the water right holder against claims that the water is being abandoned, or that the water right should be forfeited for nonuse during the period of the dedication.

#### **4. Reducing Procedural and Administrative Impediments**

##### **a. Progress on Clarifying the Process to Promote Responsible Water Transfers**

A first step toward streamlining the process and promoting responsible water transfers is to educate the parties involved about the legal requirements for water transfers, as well as the technical aspects of how to successfully develop a water transfer that protects water rights and the environment. The State Water Board and DWR have both made considerable progress in recent years in this regard. These efforts are summarized below.

- State Water Board Guide to Water Transfers

While not a recent effort, the State Water Board developed a Draft Guide to Water Transfers that still serves as a foundational document to understand water transfers. This document was developed in 1999 by the staff of the State Water Board with the input from a small group of expert water attorneys representing diverse interests, is an important reference guide that is still in use today. The Draft Guide to Water Transfers is a “road map” to assist water rights holders in navigating the maze of Water Code sections related to both temporary and long-term water transfers. The Guide also contains a “decision tree” that graphically illustrates that process. The Guide to Water Transfers is available at:

[http://www.waterboards.ca.gov/publications\\_forms/publications/general/docs/watertransferguide.pdf](http://www.waterboards.ca.gov/publications_forms/publications/general/docs/watertransferguide.pdf)

In February 2014, the State Water Board released a single page handout “Temporary Water Transfers Information and Guidance” to assist parties who may pursue temporary transfers to alleviate drought. The information sheet includes a process flow chart.

[http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/docs/infosheets/infosheet\\_transfer.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/infosheets/infosheet_transfer.pdf)

- DWR/USBR Draft Water Transfer White Papers 2002 to 2014

Beginning in 2002, DWR and USBR, in collaboration with stakeholders, developed a set of draft documents designed to assist parties in navigating through the technical details of developing various types of water transfers. Some of the most complex technical issues relate to the “no injury” rule and how water transfers can be developed without causing injury to the SWP and CVP and other water users. Prior to 2001, DWR and USBR discussed the process for working through the technical details of water transfers each year with transfer proponents. The Water Transfer White Papers were ultimately developed to clarify these technical details and bring transparency to the “new water” decision-making process. The White Papers address transfers involving the idling of crops, groundwater substitution, and the release of stored water. Since 2002, these draft papers have been revised almost annually by DWR and USBR based on input from stakeholders. The papers are now combined into one document, the Water Transfer White Paper. The November 2014 Water Transfer White Paper is available at:

[http://www.water.ca.gov/watertransfers/docs/2015 Water Transfer White Paper.pdf](http://www.water.ca.gov/watertransfers/docs/2015%20Water%20Transfer%20White%20Paper.pdf)

- Annual meetings with stakeholders

In a continuing effort to clarify the technical details of water transfers in recent years, DWR and USBR have been meeting annually with stakeholders to discuss water transfer issues that arose the previous year, in preparation for updating the Water Transfer White Paper. In addition, the agencies have convened a series of meetings with specific stakeholders to address issues as they come up during the winter and spring, as water transfers are being developed and agreements negotiated. The resolution of these issues is reflected in the next version of the Water Transfer White Paper. The most recent meeting was held on October 8, 2014, and also included a brief presentation by State Water Board staff on their water transfer activities in 2014. About 100 people participated in the meeting, either in person or by phone.

The most recent annual meeting on October 8, 2014, began with presentations by DWR, State Water Board and USBR on the water transfers that each processed during 2014. USBR and DWR provided an outlook for 2015. The buyers and sellers were invited to make comments and suggestions for improving the water transfer process. There was a general consensus that the water transfer approval process in 2014 went much better than in the recent past, mostly due to the early involvement of both DWR and USBR executive management dealing with specific issues as they came up and from the DWR Regional Staff assistance on the technical details of the

proposed water transfers. Also, most agreed that they did not want major changes to the Water Transfer White Paper to keep things stable for 2015. In terms of challenges and obstacles seen in 2014, observations were made by some of the participants, including: 1) DWR and USBR should develop standard templates for agreements, 2) if the drought continues, the Governor should issue an emergency CEQA exemption for water transfer activities of local agencies, 3) there is a need for a separate meeting on the technical aspects of groundwater substitution transfers and the necessary monitoring programs, 4) earlier estimates of carriage water requirements would be helpful, 5) guidance was sought regarding the implementation of new Water Code Section 1018 regarding remnant vegetation, and 6) issues related to rice straw decomposition water transfers should be evaluated. There was consensus that the meeting was useful and it should be conducted again in 2015.

**b. Progress on Expediting the Processing of Water Transfers for Drought Relief and Beyond**

- Governor's Drought Emergency Proclamations and Executive Orders

In response to the severely dry conditions in 2013, the Governor issued the first of several Executive Orders (EOs) that, among other things, declared a drought emergency in California and directed State agencies to expedite water transfers (see EOs B-21-13, B-26-14, B-28-14, B-29-15). The Governor issued formal drought proclamations on January 17, 2014 and April 25, 2014 in response to the continuing critically dry conditions. The Proclamations and EOs have been helpful in reducing the processing time for water transfers and suspending CEQA for some transfers.

- State Water Board

The Governor's Drought Emergency Proclamation of April 25, 2014 shortened the public noticing period specified in Water Code Section 1726(f) for temporary water transfers subject to State Water Board permitting authority from 30 days to 15 days. The State Water Board is giving water transfers a very high processing priority.

- DWR

With extra drought emergency funding provided by the legislature in 2014, and in response to the Drought Emergency Proclamations and the EOs, DWR hired a consultant to assist in the review and processing of water transfers requiring use of SWP facilities to more efficiently resolve the complex issues associated with certain transfers. This assistance has expedited the review of

these transfers. DWR places a high priority on expediting water transfer proposals. In addition, DWR is developing an online application and data documentation process that is expected to further expedite the submittal and review of transfers in the future.

- USBR

USBR played a much bigger role in conveying transfer water in 2014 and 2015, primarily as a result of the critically dry hydrologic conditions and extremely low allocations, which resulted in available capacity at the CVP Jones pumping plant in the Delta to convey transfer water. In all but the driest years, the Jones pumping plant does not have excess capacity during the transfer period to accommodate water transfers, and the transfer water is more typically moved through the SWP Banks pumping plant in the Delta. USBR addressed this challenge by assigning key management staff to assist in the processing and approval of the transfers.

- Interagency Coordination

Since January 2014, the State Water Board, DWR, USBR and the State and federal Fishery Agencies water transfer staff have been meeting regularly to share knowledge and exchange information about the water transfers being proposed or likely to be proposed. During critical periods, these agencies meet weekly, or even twice a week, to resolve outstanding issues. This sharing of knowledge has helped all of the agencies in their review of water transfers and has greatly expedited the process. In addition, DWR and USBR technical staff meet regularly to discuss technical aspects of specific water transfers.

- Buyers and Sellers

Buyers and sellers play a critical role in water transfers. In several extended dry periods prior to 2010, DWR was asked to play a significant role in developing water transfers for California. DWR would locate willing sellers, interview prospective buyers, negotiate price and resolve the technical issues involved in making water transfers work. However, over the past 15 years the water market has matured to the point where such involvement by DWR is no longer necessary. Buyers and sellers now find each other, without DWR's involvement, and independently negotiate the water transfer. DWR's role is generally now one of providing conveyance, complying with Water Code Section 1810 *et seq.* discussed above, and providing any needed technical assistance and support. The buyers and sellers are generally responsible for CEQA compliance and other permitting obligations. DWR has released a schedule in the Water Transfer White Paper to guide the parties in

providing information necessary for both DWR and the State Water Board to act upon the water transfer request in a timely manner. The buyers and sellers are encouraged to meet this schedule to help expedite the processing of the water transfer requests. In the past two years, meeting this schedule has been challenging due to the extreme hydrologic conditions, and DWR and Reclamation staff have made every effort to meet compressed schedules where possible. However, timely submittal of water transfer requests, together with complete supporting documentation consistent with the White Paper schedule, is the most effective way for buyers and sellers to help expedite water transfers.

## **5. Progress on Working with Stakeholders Issues in 2014 and 2015**

Water transfer issues are varied, complex and specific. The best way to address these issues is through focused discussions with stakeholders that have practical experience with these issues. The State Water Board, DWR and USBR have been increasingly successful in recent years in addressing water transfer issues through meetings with focused stakeholder groups, and these efforts will continue in the years ahead. Some of these efforts are summarized below.

- Issues with specific water transfer proposals

As mentioned in the section above on the need for focused discussions, many of the specific water transfer issues emerge over the course of development of specific water transfer proposals or during the water conveyance contracting process. These issues classically fall outside the general technical guidance offered in the Water Transfer White Paper and require a more detailed, case-by-case evaluation. To resolve these issues, both DWR and USBR executive level management engagement has been helpful. In 2014 and 2015, both USBR and DWR executive management assigned specific personnel to work on the resolution of these issues. Many stakeholders have commented that this increased early involvement on the part of executive management made the process much better than in previous years.

- State Water Board Water and DWR Water Transfers Listening Session

On April 29, 2014, the staff of the State Water Board and DWR held a joint listening session to solicit ideas and recommendations to streamline the review process for temporary water transfers. The listening session provided background information on water transfers and solicited suggestions for improvements in the following areas: availability of information on water transfers; responses to comments on water transfer proposals; coordination between transfer approval agencies; available information on impacts due to water transfers; and the process, including timing, related to the evaluation of

surface water, groundwater, and environmental impacts related to water transfers. Twenty-five stakeholders attended the listening session. It was also webcast on the Internet.

After a short presentation by both the State Water Board and DWR staff, one stakeholder made a presentation on behalf of the California Economic Summit Streamline Our Agency Regulations (SOAR) Water Transfer Action Team. SOAR was the only group to provide comments. The comments included suggestions for streamlining the process by developing a common template, consolidating the CVP and SWP place of use, and development of additional storage.

With regard to the development of a common template, both agencies determined that this suggestion was not feasible for 2015 due to time constraints. However, DWR is developing an online water transfer application process that may be helpful to all of the reviewing agencies and the applicants. This effort began in 2014, and the online application is expected to be tested in late 2015 and may be available for use on a limited basis in 2016. DWR is consulting with the State Water Board on this new process and will coordinate their activities with the State Water Board. With regard to review and response schedules, the State Water Board's schedule is mandated in Water Code 1725 *et seq.* In the 2014 White Paper, DWR outlined a schedule for submittal of transfer information and timelines for action.

This concept of consolidating the SWP and CVP places of use on a long-term basis has been considered by both DWR and USBR, but represents a major undertaking with complex policy implications for both DWR and USBR. Consolidation of the SWP and CVP places of use south-of-the-Delta has been used in the past on an annual basis, including in 2014 and 2015, to facilitate south of Delta exchanges in a number of years, as needed, through a joint DWR/USBR Petition for Temporary Change under Water Code Section 1725 *et seq.* As to the suggestions regarding water storage, this item is beyond the scope of the transfers streamlining efforts.

The presentations and video of the event are available for viewing at: [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/water\\_transfers/](http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_transfers/).

- Stakeholder one-on-one interviews

During several weeks in the late summer of 2014, DWR's consultant met with various stakeholders, representing both the sellers and buyers of water, on a one-on-one basis. The purpose of this series of meetings was to have candid discussions about what the stakeholders believed worked well over the 2014 water transfer period, and to solicit their views on how the water transfer process could be improved. As a result of those meetings and the meeting on

October 8, 2014 with a large group of stakeholders (mentioned above), DWR identified very specific areas where the stakeholders indicated that improvements could be made. These issues were evaluated by DWR. DWR worked with both USBR and the State Water Board to resolve most of the issues by February 2015. These issues and the results of the reviews to date are summarized in Attachment 1. The suggestions that were rejected were found to be either impractical or needed more time to resolve before the next transfer season.

## **6. Protecting Water Rights and the Environment**

As previously discussed, there are three basic rules in California water rights law related to water transfers, in addition to ESA/CESA, CEQA and other protections in the law. The three rules are, briefly: (1) the transfer must cause no injury to any legal users of water, (2) the transfer must not unreasonably affect fish, wildlife or other instream beneficial uses, and (3) the transfer must not unreasonably affect the overall economy or the environment of the county from which the water is transferred. The State Water Board (rules 1, 2 and potentially 3 above) and DWR (rules 1, 2 and 3) apply these rules in their evaluations of proposed water transfers. While there are efforts to expedite water transfers, there are no short cuts to compliance with these legal protections. Prior to initiating review of a proposed water transfer, the State Water Board and DWR require specific, detailed information regarding the water transfer and its potential effects on both river flows and environmental resources. The information provided by the parties proposing the transfer is reviewed by State Water Board, USBR and DWR staff and additional information is gathered by these agencies, as needed, in their evaluation of the proposed transfer.

Responsible water transfers make more water available to the system upstream than would have occurred in the absence of the water transfers. The most common types of water transfers fall into one of three categories: (1) the idling of crops to reduce on-farm consumptive use, (2) the use of groundwater to irrigate crops instead of the normal use surface water supplies, or (3) the release of stored water that would otherwise remain in storage. More water in the river is typically beneficial for fish and wildlife, so upstream flow impacts are typically not an issue. There are, however, several other potential issues that must be considered, including potential impacts to wildlife habitat due to idling of crops, the potential for groundwater pumping to affect other groundwater users, depletion surface water flows that could impact fish or wildlife or downstream water users, the potential for the release of stored water to affect cold water pools needed later for temperature control and the potential injury to water right holders downstream when a reservoir operator refills the storage space vacated for a water transfer. These issues and more are considered by the State Water Board and DWR in their review of water transfer proposals.

The Water Transfer White Paper mentioned above addresses the possible effects of each type of water transfer, and proposes how these issues can be addressed. Mitigation and avoidance measures will not be discussed in detail here but include: (1) specific measures that have worked in the past to avoid these impacts, (2) monitoring programs to detect possible impacts before they become serious and (3) measures included in the BiOps issued by the federal Fishery Agencies to avoid impacts to sensitive species such as the giant garter snake and Delta fishes.

**a. Environmental Considerations in the Delta – Timing of Water Transfers**

Water transfers from water users north of the Delta to water users south and west of the Delta pass through the Delta. The current BiOps adopted by USFWS and NMFS regarding the SWP and CVP Delta operations specifically address water transfers. These BiOps limit the diversion of transfer water at the SWP and CVP south Delta pumping facilities to the months of July through September (Water Transfer Window). The federal Fishery Agencies found that this is the period of time when Delta smelt and salmon are not present in the Delta in any significant numbers and, therefore, are not affected by SWP or CVP operations. The State and federal Fishery Agencies have a significant oversight role in the water transfer process. If water transfer water is proposed to be moved outside the Water Transfer Window, both State and federal Fishery Agencies must be consulted and their concurrence obtained.

Many potential buyers and sellers consult with DWR and USBR prior to submittal of a Water Code Section 1725 *et seq.* petition to the State Water Board or prior to requesting a conveyance agreement with DWR or USBR. All proposed water transfers are discussed by the interagency team that includes the State Water Board, DWR, USBR, CDFW and, if needed, the federal Fishery Agencies. One benefit of the Fishery Agencies' early participation is that they learn about potential transfers prior to the public noticing of a transfer petition filed with the State Water Board. This allows them more time to consider the proposal and any potential impacts to fish and wildlife. In addition, the federal Fishery Agencies can learn about possible water transfers that would not otherwise come to their attention, such as those that might not be publicly noticed, since they do not require State Water Board approval. By identifying and addressing potential fish or wildlife impacts at this pre-petition stage, transfer proponents are able to make adjustments to address potential impacts, thus expediting the process.

At the interagency team meetings, specific fishery or wildlife issues, such as the giant garter snake, are also discussed. Typically, the State Water Board receives formal input from CDFW after the transfer petition is received, either through direct contact from State Water Board staff, or by CDFW filing a comment letter during the public notice period. Fishery Agencies' comments are considered by the State Water Board and DWR when they evaluate the proposed transfer and

consider whether they can make the requisite finding that the transfer will “not unreasonably affect fish, wildlife or the environment.”

#### **b. Water Quality Issues in the Delta and Carriage Water Requirements**

One issue that has been expressed by parties concerned about through-Delta water transfers is the potential to adversely affect water quality in the Delta. As exports increase due to through Delta water transfers, there is the potential for more salt water to be drawn from the west Delta into the central and southern Delta. In order to avoid the potential impacts to Delta water quality, DWR and USBR impose a “carriage water” requirement for each through Delta transfer. This carriage water represents the portion of the water entering the Delta necessary to repel the potential intrusion of salinity due to the additional transfer exports. This is particularly important when water quality or flow requirements set by the State Water Board control SWP/CVP operations in the Delta. The carriage water requirement has typically ranged from 20 to 35 percent of the transfer water that enters the Delta. The determination of the magnitude of the carriage water requirement is calculated each year based on detailed modeling conducted by DWR, with input from USBR. In 2014, the initial carriage water requirement was estimated to be 35 percent. However, through modeling in the fall, the carriage water requirement was determined to be only 20 percent due to the extremely low volume of exports that year. For DWR agreements that contained adjustment provisions, the amount of water that was classified as transfer water was adjusted. The evaluation of each year’s carriage water requirement is shared with the buyers and sellers on a regular basis.

#### **c. Protecting the Giant Garter Snake – ESA and Recent Studies**

California's Central Valley is home to the largest garter snake species, *Thamnophis gigas*, an aquatic snake listed as a threatened species under both the California (1971) and federal (1993) Endangered Species Acts. The decline of the species is attributed to loss of wetland habitat but also other stressors such as habitat fragmentation, predation, and land use practices. The snake has been, for the most part, extirpated from the San Joaquin Valley and is presently found in highest abundance in isolated remnant wetlands and rice agriculture in the Sacramento Valley. The giant garter snake has adapted to living in flooded rice fields and their associated canals, as acreage of natural wetlands have diminished. Rice production is favorable to the biological needs of the giant garter snake, including spring and summer flooding and fall drainage. Rice agriculture also provides suitable habitat in tail water marshes, water conveyance canals, levees, raised border checks and shallow warm water with emergent vegetation. Idling of rice is a common method used to make water available for transfer, potentially affecting available habitat.

To protect the giant garter snake, DWR incorporated the conservation measures from the latest BiOps for the CVP water transfer program into the Water Transfer White Paper. These conservation measures are the most current protective measures as determined by the USFWS to protect the giant garter snake from potential impacts due to idling rice land. Incorporation of these measures into water transfers aids in making the required findings under Water Code Sections 1725 *et seq.* and 1810 *et seq.*

In order to better understand the potential impacts associated with rice land idling on the giant garter snake, DWR is funding a 10-year research study to establish occupancy patterns of the giant garter snake in the Sacramento Valley. DWR contracted with US Geological Survey –Western Ecological Research Center (WERC) to conduct the research and to date has funded three years and \$3.8 million in studies.

Information from the occupancy studies was cited by USBR in its Biological Assessment for water transfers in 2014 and, most recently, in the current consultation with the USFWS for the USBR Long-term Water Transfer Program. The USBR used this information to identify priority areas (areas of high potential giant garter snake occupancy) in which water transfers should be restricted (avoidance measure). This approach allows focusing of protective measures in areas where the giant garter snake is most likely to be found. The USFWS issued a BiOp based on this approach.

In addition, a Technical Review Committee (TRC), composed of agency stakeholders and independent consulting experts, has been formed to provide long-term assistance to DWR in the implementation of the giant garter snake research. A Research Framework is currently being prepared by University of California, Davis, biologists under contract and with support from the TRC and invited scientists. The Research Framework will identify data gaps in the knowledge of the ecology of the giant garter snake and guide the research over the long term.

#### **d. Progress on Specific Issues in 2014 and 2015**

In 2014, DWR focused special attention on two specific water transfer related issues: (1) remnant vegetation in crop idling transfers (in compliance with Water Code Section 1018), and (2) stream flow depletions due to groundwater substitution transfers (to take advantage of new modeling efforts). These two issues are discussed below.

- Remnant Vegetation

In order to receive full credit for the expected water savings from a crop idling program, idled land cannot be irrigated with surface water or have actively growing vegetation supported by shallow groundwater or seepage during the transfer season. DWR does not require the removal of all vegetation from an idled field.<sup>11</sup> Remnant vegetation (weeds, cover crop, and over-winter crop) that is supported only through precipitation or that has begun to senesce (dry out and begin to turn brown) may remain on the fields to be idled, and can provide habitat and other wildlife benefits. If a field idled for transfer supports actively growing vegetation through inadvertent irrigation, seepage or access to high groundwater, a portion of the water assumed to be made available for the transfer is being consumed on the idled field, reducing the amount of new water made available. The control of excessive vegetation in areas with high groundwater or significant seepage may present particularly difficult challenges. These include concerns regarding use of herbicides and disking of fields that may impact terrestrial and water species exposed to runoff of herbicides or overspray into waterways if not managed properly

Water Code Section 1018 was enacted in 2013 to encourage landowners to retain cover crops when land is idled for water transfers. Section 1018 provides:

When agricultural lands are being idled in order to provide water for transfer pursuant to this division, and an amount of water is determined to be made available by that idling, landowners shall be encouraged to cultivate or retain non-irrigated cover crops or natural vegetation to provide waterfowl, upland game bird, and other wildlife habitat, provided that all other water transfer requirements are met.

DWR and USBR met with waterfowl and wildlife interests several times in 2014 regarding remnant vegetation issues related to transfers, in order to understand their concerns and develop ways to better articulate the current DWR/USBR approach to vegetation control on idled fields. In response to Section 1018 and questions regarding remnant vegetation on idled fields, DWR and USBR expanded the discussion on control of remnant vegetation in the Water Transfer White Paper. In April 2015, DWR and USBR field staff also met with water district managers in the Sacramento Valley to discuss the issues related to remnant vegetation and the flexibility available in managing idled fields. DWR and USBR encourage all district and water agency managers' staff to contact DWR and USBR regional field staff when site-specific issues come up regarding water transfers and remnant vegetation.

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<sup>11</sup> See [http://www.water.ca.gov/watertransfers/docs/2015\\_Water\\_Transfer\\_White\\_Paper.pdf](http://www.water.ca.gov/watertransfers/docs/2015_Water_Transfer_White_Paper.pdf)

- Groundwater Substitution Transfers and Stream Flow Depletions

In a groundwater substitution transfer, water is made available for transfer as a result of the grower forgoing diversion of surface water and, instead, pumping groundwater to irrigate lands that would otherwise have been irrigated with surface water. The surface water is then transferred to other water users. Water Code Section 1220 effectively prevents the direct pumping of groundwater for uses outside the Sacramento Valley unless very stringent conditions are met. Since the enactment of Water Code Section 1220, DWR is unaware of the successful completion of any direct export of groundwater outside of the Sacramento Valley watershed. The Water Transfer White Paper outlines the technical information necessary to develop a groundwater substitution transfer proposal.

Switching to groundwater pumping in lieu of diverting available surface water has the potential to impact other water users, including potential impacts to groundwater levels, water quality, streamflow depletion, and subsidence. In most cases, groundwater pumping for transfers will develop water at the expense of current and future streamflow, which could injure other legal users of water or unreasonably affect fish and wildlife, if it occurs when the Delta is in Balanced Conditions or there is limited streamflow in the channel affected by the depletions. In order to mitigate the potential injury related to depletions in streamflow, DWR and USBR developed a Stream Flow Depletion Factor (SDF). This SDF is discussed in the Water Transfer White Paper<sup>12</sup> and is modified as new technical information becomes available. For example, the SDF was modified in 2015 from 12 to 13 percent, based on information contained in the USBR Long-Term Water Transfers Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

The actual SDF varies, depending on the specific project. When specific information is available indicating that the average SDF applied to most typical groundwater substitution transfers may not be applicable, DWR works with the seller to develop a more appropriate value. For groundwater substitution transfers that require State Water Board approval, the Board's practice, like DWR's, is to impose a stream flow depletion factor (generally as determined by DWR or USBR staff) as a condition of approval in order to avoid injury to other legal users.

DWR and USBR have initiated an effort to develop a new modeling tool to more accurately estimate an appropriate SDF for individual transfer proposals. In addition, DWR and USBR have developed a Sacramento Valley

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<sup>12</sup> See [http://www.water.ca.gov/watertransfers/docs/2015\\_Water\\_Transfer\\_White\\_Paper.pdf](http://www.water.ca.gov/watertransfers/docs/2015_Water_Transfer_White_Paper.pdf)  
Page 30.

Stream Flow Depletion Factor Management Group, composed of key stakeholders in the Sacramento Valley and the areas south and west of the Delta, to provide management and technical guidance to the groundwater modeling improvements being undertaken by DWR and the State Water Contractors. This Management Group first met on February 25, 2015, and these meetings are continuing.

## **7. Avoiding Potential Issues with Recurring Temporary Transfers**

As discussed above, under Water Code Section 1725 *et seq.*, post-1914 water right transfers are statutorily exempt from CEQA, and thus the State Water Board does not conduct cumulative impacts analysis for these types of transfers. DWR staff, however, has considered this topic, as requested by the Delta Stewardship Council, and provides the following discussion.

There appears to be a perception among some parties that most of the temporary water transfers are so-called 'recurring' transfers that are, in effect, long-term transfers which should be required to prepare a CEQA analysis to assess the potential impacts of a long-term transfer program. This perception likely stems from the fact that transfers are sometimes requested by the same buyer or seller in consecutive years. However, temporary water transfers are rarely the same each year, even though the same seller or buyer may be involved in implementing temporary transfers in consecutive years. The need for water transfers, the amount of water available, and the amount of transfer conveyance capacity varies from year to year, depending on hydrologic conditions.

In situations where a party determines it is likely that the proposed water transfer will span consecutive years, the party can evaluate its CEQA compliance obligations and consider preparing a long-term transfer CEQA document. USBR and San Luis and Delta Mendota Water Authority (SLDMWA) elected to prepare a NEPA/CEQA document covering a long-term transfer program, including both single year and multi-year transfers from 2015 through 2024. In March 2015, USBR and the SLDMWA released their Long-Term Water Transfers Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), and the federal Record of Decision was issued on May 1, 2015. The EIS/EIR analyzes water transfers to CVP contractors south of the Delta and in the San Francisco Bay area from CVP and non-CVP sources north of the Delta using CVP and SWP Delta pumping facilities. The measures identified in the EIS/EIR to address potential impacts of the transfers are very similar to those included in the Water Transfer White Paper to address the effects of temporary water transfers.

Transfers are typically limited to dry periods when there is a reduction in the available supplies and sufficient capacity exists in the SWP and CVP facilities to export the transfer water. During extended dry year periods, like the one in which California now finds itself, transfers may occur in consecutive years, in some cases involving the same buyers

and sellers, but the specifics of these transfers vary significantly. For example, a water district may engage in a crop idling transfer in consecutive years, but the lands idled are different and the amount of the acreage and distribution within the district generally changes from year to year. The same is true to a lesser extent with groundwater substitution transfers. The wells pumped may change from year to year and the quantity of transfer water changes.

So, while the parties to a temporary water transfer may be the same as in previous years, the water transfers themselves are usually very different. A long-term transfer program, unlike temporary transfers, is typically one in which a seller develops a plan with specific transfer triggers and particular buyers. The conditions under which the buyer can call on the water are identified and there is some predictability to the pattern of transfers. Most water transfers, however, do not fall into this category. Temporary water transfers, unlike long-term transfers, are uniquely time-sensitive. Decisions to participate in a transfer may not occur until a few months before the transfer season.

In 2014, as part of the interagency coordination effort, information was compiled on non-Project water transfers within the Sacramento and San Joaquin watersheds for the years 2012 and 2013. The purpose of this review was to better understand the makeup of the buyers and sellers, how transfers may redistribute water use and the variability in transfer activity. The results of this analysis are shown in Attachment 2. These figures showed how transfer water is re-distributed based on use including Irrigation (“Ag”), Municipal and Industrial (“M&I”), or Fish and Wildlife (“FW”).

There also appears to be a perception that, because a seller may decide to implement more than one temporary transfer under Water Code Section 1725 *et seq.*, which provides an exemption from CEQA, the potential impacts of the individual transfer are not being evaluated. As discussed above, although Section 1725 *et seq.* provides a statutory CEQA exemption an evaluation of the potential impacts is still completed which includes the opportunity for input from outside parties and the State Water Board must make specific findings before it can approve the transfer. Temporary water transfers under Water Code Section 1725 *et seq.* are limited to water that would have been consumptively used or stored in the absence of the transfer. “Consumptively used” in Water Code Section 1725 *et seq.* is defined to mean the amount of water that has been consumed through use by evapotranspiration, percolated underground, or otherwise removed from use in the downstream water supply. In many cases, limiting a transfer to water that would have been consumptively used or stored in the absence of the transfer will serve to avoid adverse impacts. In addition, the State Water Board must find that the proposed transfer: (1) would not injure any legal user of water,<sup>13</sup> and (2) would not unreasonably affect fish, wildlife or other instream beneficial uses.

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<sup>13</sup> Water Code Section 1727(a)(1) provides: “The proposed temporary change would not injure any legal user of water, during any potential hydrologic condition that the board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows. “

As discussed above, DWR and USBR review the transfers involving the use of SWP or CVP facilities to assure that new water is being made available. If SWP facilities are being used to facilitate the transfer, DWR must have sufficient information to make the findings required under Water Code Section 1810 *et seq.* In addition, monitoring and mitigation programs are included as an element of each transfer approved by DWR or USBR. The monitoring and mitigation plans are intended to signal the need to respond to potential issues that may arise over the course of the transfer.

As the water market in California has matured, some agencies that have done multiple temporary water transfers have developed long-term programs. The Yuba Accord is a good example. Here, Yuba County Water Agency (YCWA), DWR and the contractors of both the CVP and SWP south of the Delta entered into a long-term reservoir storage and groundwater conjunctive use agreement. The Yuba Water Purchase Agreement was built on the knowledge gained by the YCWA's temporary water transfers with various parties.

## **8. Progress in Promoting the Transparency of Water Transfers in General and in the Notification of Specific Proposed Water Transfers**

Since 2014, the State Water Board, DWR and USBR each have worked to develop and make available to the public tools available to the public that will enhance transparency in the water transfer process, provide notification of transfer activities and inform and educate the public on transfer related issues. One of those tools has been the development or enhancement of Water Transfer Websites for each agency.

### **a. Websites to find more information about Water Transfers – Past and Current**

- State Water Board Water Transfers Website

The State Water Board Water Transfer website provides forms for post-1914 water right holders to file a water transfer petition, public notices of post-1914 water right petitions (current and previous years), orders acting on post-1914 water right petition requests (current and previous years), and other reference materials such as the State Water Board “Draft Guide to Water Transfers.” The website also provides tracking tables of post-1914 water transfer petitions approved by the State Water Board dating back to 2009, and the currently pending petitions that have been officially noticed for public review. When a new petition is received, State Water Board staff determine (based on Water Code requirements) the date by which the petition will be publicly noticed and by when action on the transfer will occur. These tables help provide transparency on processing milestones and provide an easy to

reference summary of all pending and acted upon transfer petitions for that year.

[http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/water\\_transfers/](http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_transfers/)

The State Water Board website also contains September 2013 summary of the State Water Board's role in water transfers "State Water Resources Control Board Water Transfer Program Information":

[http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/water\\_transfers/docs/transproginfo.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/water_transfers/docs/transproginfo.pdf)

- DWR Website

The DWR Water Transfers website contains links to the Water Transfer White Paper, along with links to historical documents related to water transfers facilitated by DWR, as well as links to additional resources related to water transfers. For example, under "Activities," this site links to a table of water transfers conveyed by DWR in 2014 and 2015. Under Charts and Graphs, there is a link to a detailed representation of Sacramento Valley transfers to areas south and west of the Delta in 2012 and 2013. The site also provides a list of "tools" that are helpful in preparing a water transfer, along with other information.

In 2016, DWR will post the proposed transfers requiring the use of SWP facilities when complete applications are submitted. The preliminary information may change as the application is reviewed and the posting will be updated through the water transfer season.

<http://www.water.ca.gov/watertransfers/>

- USBR Website

The USBR Water Transfer website provides a summary of the CVPIA provisions that govern USBR activities related to CVP water transfers. Users can search for "water transfers" on this website to obtain a list of past and current NEPA documents that USBR has prepared on water transfers. <http://www.usbr.gov/mp/watertransfer/>. The website also contains a link to the USBR's recently certified Long-Term Water Transfers EIS/EIR. [http://www.usbr.gov/mp/nepa/nepa\\_projdetails.cfm?Project\\_ID=18361](http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=18361)

## **b. Water Transfers in 2014 and 2015**

Table 1 shows the cross Delta water transfers facilitated by DWR or USBR that took place in 2014 and those projected to occur in 2015, including the amount of water made available by the various types of water transfers (i.e., crop idling, groundwater substitution, and the release of stored water). In 2014, approximately 420,000 AF of water was made available upstream of the Delta, a significant amount of water. For comparison, the last major on-stream reservoir built in California was New Melones Reservoir in the 1970's. At that time, this 2.5 MAF reservoir had a dry period water supply yield of about 200,000 AF. Water transfers clearly play a role in moving water to water short areas. Figures 1 and 2 illustrate how this water was provided in both 2014 and 2015.

In 2015, due to the extremely low snow pack (about five percent of "normal"), there is much less water available upstream of the Delta to transfer than in past years. In the Feather River watershed, for example, inflows are so low that they have triggered a 50 percent curtailment of water supplies to the Feather River water right settlement contractors. On the Sacramento River, USBR allocated 75 percent of contract amounts to their settlement contractors, but providing even that reduced supply has been a significant challenge. In addition, on May 1, 2015, the State Water Board issued its first curtailment notices to all post-1914 water right holders in the Sacramento Valley, notifying them that, based on analysis of supply and demand, there was insufficient water to meet their diversion priorities. As a result, the SWP and CVP, along with other relatively junior water rights holders ceased diversions of natural and abandoned flows. Thereafter, SWP and CVP operations depended on managed releases of previously stored water in their reservoirs. In June 2015, the State Water Board issued similar notices of insufficient water supplies to water right claimants with priority dates later than 1903 in the entire Delta watershed.

If a seller is issued a curtailment notice, any transfer of direct division water under that water right stops. Transfers relying on previously stored water may continue to transfer the water that was stored prior to curtailment. All of these factors have led to many water transfers literally drying up in 2015, which has resulted in much less water transferred in 2015 compared to 2014. The amount of north-of-Delta to south and west-of-Delta water transfers currently projected for 2015 is approximately 300,000 AF or about 120,000 AF less than last year, principally due to the extremely low snow pack and April through July runoff. This demonstrates how demand for and supply of transfer water can vary substantially from year to year.

Table 1 shows the amount of water that was transferred from North of the Delta to buyers south and west of the Delta. Table 1 includes both temporary transfers

and long-term transfers. The temporary transfers include those processed by the State Water Board under Water Code 1725 *et seq.* and other types of single year transfers, such as CVP contractor-to-contractor transfers. Of the approximately 250,000 AF of temporary transfers in 2014, about 31 percent (78,000 AF), were processed by the State Water Board. Of the approximately 210,000 AF of temporary transferred in 2015, about 15 percent (31,000 AF), were processed by the State Water Board. The State Water Board totals are based on the amount granted by approval order minus any relevant curtailment which precluded transfer rather than actual amount transferred. These values also exclude the DWR-USBR Consolidated Place of Use exchanges.

Water transfers between CVP contractors are providing a significant environmental benefit for fisheries resources in 2015. Temperature concerns in the Sacramento River below Shasta Reservoir have affected how USBR has managed requests to transfer water over the past two years. In 2015, USBR encouraged Sacramento Valley settlement contractors to reduce their spring and early summer water use by using alternative sources or by idling more crops than usual. As a result, Shasta Reservoir levels were at a higher level through the summer and provided a larger cold-water pool in the reservoir. All of the CVP transfer water scheduled for delivery in 2015 will be transferred to buyers south of the Delta during the late summer and fall. These efforts will help provide lower temperatures for Winter Run salmon in the Sacramento River below Shasta Reservoir this summer and higher river flows in the fall. This is another example of how water transfers can be structured to help address environmental issues, in addition to making water available to other water users with critical water supply shortages, including CVP contractors south and west of the Delta who received zero CVP water allocations the past two years.

**Table 1**

**Summary of Water Transfers Facilitated by DWR and  
USBR From North of the Delta to South and West of the Delta**

2014 Actual - 2015 Projected <sup>1</sup>

All Values are in Acre-Feet <sup>2</sup>

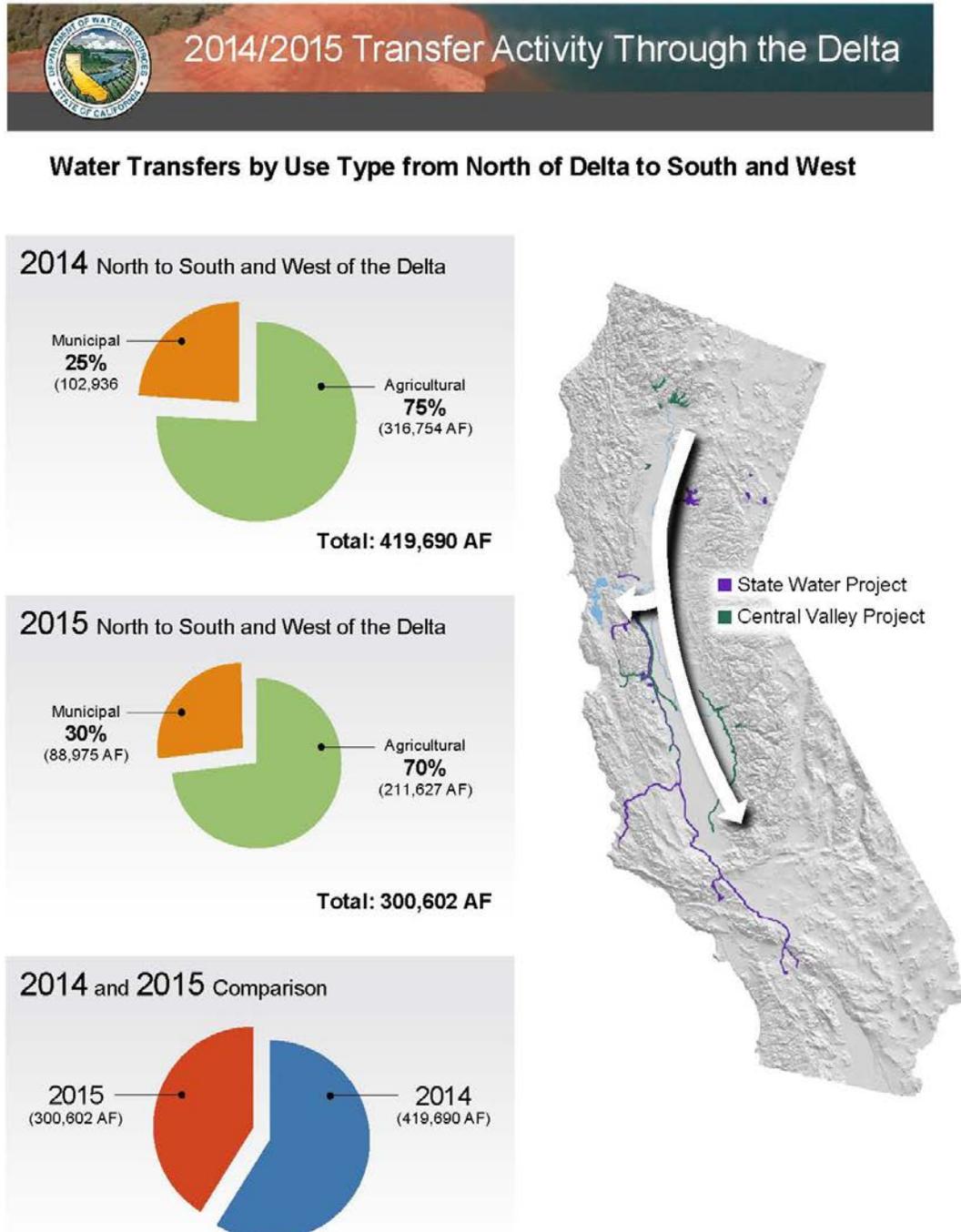
	2014 Actual			2015 Projected		
	Temporary	Long-term <sup>3</sup>	Total	Temporary	Long-term <sup>3</sup>	Total
DWR Conveyance Used						
Res. Release	10,000	109,132	119,132	12,000	56,400	68,400
Crop Idling	97,533	3,100	100,633	0	3,100	3,100
Groundwater Sub	29,011	56,984	85,995	10,340	31,032	41,372
SUBTOTAL	136,544	169,216	305,760	22,340	90,532	112,872
USBR Conveyance Used						
Res. Release	35,000		35,000	5,483		5,483
Crop Idling	45,512		45,512	115,714		115,714
Groundwater Sub	28,418		28,418	41,305		41,305
SUBTOTAL	108,930		108,930	162,502		162,502
<b>DWR and USBR TOTAL</b>	<b>245,474</b>		<b>414,690</b>	<b>184,842</b>		<b>275,374</b>
EBMUD-Through Freeport						
Crop Idling	0		0	13,228		13,228
Res. Release	5,000		5,000	12,000		12,000
SUBTOTAL	5,000		5,000	25,228		25,228
<b>NORTH to SOUTH &amp; WEST TOTAL</b>	<b>250,474</b>		<b>419,690</b>	<b>210,070</b>		<b>300,602</b>

<sup>1</sup> All values shown for 2015 are preliminary and may change following final verification of transfer amounts.

<sup>2</sup> All values represent the amount of water made available at the point of delivery (including Streamflow Depletion losses where applicable) but do not include Carriage Water losses across the Delta.

<sup>3</sup> All YCWA Long-Term Transfers are shown under DWR Conveyance although some conveyed by USBR.

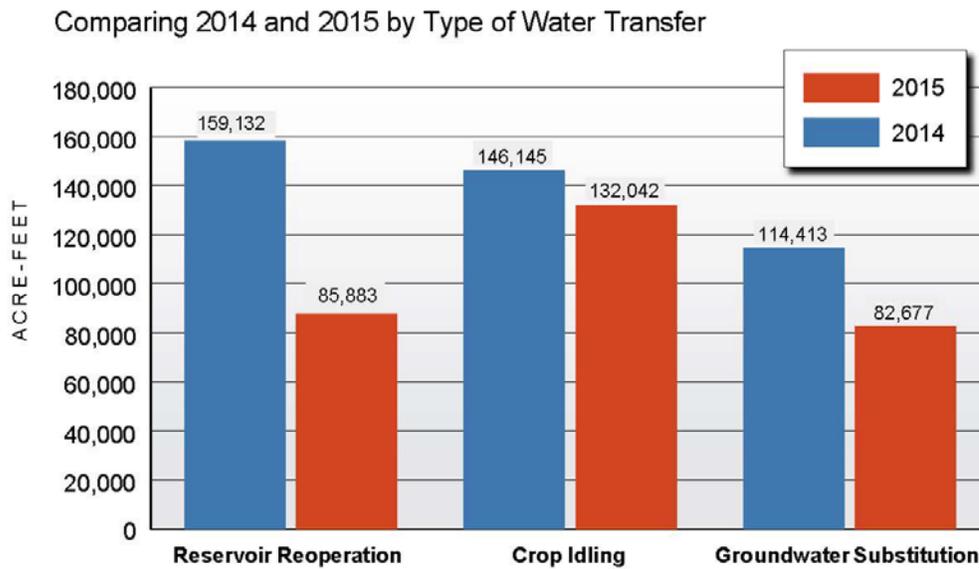
Figure 1



**Figure 2**



**Water Transfers by Type from North of Delta to South and West**



## Attachment 1

### Suggestions for Improvement Agreed to by DWR

Topic Area	Suggestion	Resolution
General	The Governor's Emergency Executive Order should be expanded to provide an exemption from CEQA for local agency actions related to temporary water transfers.	DWR worked with the Governor's office and an exemption was provided in 2015 for crop idling water transfers.
	The places of use of the SWP and CVP south and West of the Delta should be consolidated.	In March, DWR filed a Petition for Change with the State Water Board to consolidate the SWP and CVP places of use south and west of the Delta in 2015. The petition was approved by Water Board approved the petition.
	In-Delta water transfers currently cannot be accounted for under the existing calculation of the Delta Outflow Index contained in D-1641. DWR needs to work with the State Water Board to develop a solution to this issue.	The issue was addressed for the only 2015 transfer for which this was an issue (CCWD) by clarifying how exports are calculated at the CCWD intake. More work is needed address possible future in-Delta water transfers.
	Confirm the SWP/CVP BiOp export restrictions on water transfers apply only to the Banks and Jones pumping facilities of in the South Delta.	This was confirmed in conversations with the federal Fishery Agencies.
	Check that 500 CFS of additional pumping capacity in the summer allowed in the COE permit at the Banks pumping plant will be available in 2015.	This COE permit condition is in place through August 2016, and work will be initiated to extend it beyond that date.
	Review the MBK new analysis of Sacramento Valley Depletions to determine if it can be used by the CVP and SWP in developing operations projections.	This analysis was reviewed and is being considered by the SWP and CVP operations staff.
DWR Agreements	Revise the current DWR 3-party agreement so that it is "Less Clunky".	DWR has developed nine different transfer conveyance templates reflecting a variety of types of sellers and buyers
	Consider the use of a DWR Forbearance type agreements like those used by USBR	This proposal was reviewed extensively by DWR. While there are pros and cons, it was determined not to provide substantial benefits over the existing process
	Expedite approvals for the same or similar transfers	A case-by-case evaluation is required for each transfer. The data repository being developed for the online application process will help expedite the review of similar transfers

Suggestions for Improvement Agreed to by DWR  
(cont.)

Topic Area	Suggestion	Resolution
DWR Agreements	Modify the language in the DWR agreements that deal with compliance with Water Code 1220 (which effectively prohibits the direct transfer of groundwater out of the Sacramento Valley watershed).	New language was developed that was acceptable to the sellers in 2015 and is now included in the DWR water transfer template agreements.
	Evaluate the revised Stream Flow Depletion Factor developed in USBR's Long-term Water Transfer EIS/EIR.	DWR reviewed USBR analysis and modeling and agreed to accept the revised SDF for all groundwater substitution projects.
	Consider including provisions to allow adjustment of the carriage water requirements in the fall for CVP contractors that use SWP facilities.	This provision can be included in conveyance agreements if the CVP contractor works with USBR so that any adjustments in carriage water requirements can be reconciled between DWR and UBSR.
	Clarify that the North Delta WA and East Contra Costa ID agreements with DWR allow for approved water transfers provided the base rights of the water users are not curtailed.	DWR communicated to the parties that water transfers would be considered if supported by the water users underlying water rights.
	DWR should develop template storage and conveyance agreements to expedite the processing of these agreements.	DWR has developed nine template conveyance agreements reflecting a variety of types of sellers and buyers.
Groundwater issues	Meet with stakeholders on various groundwater issues including the extent of the needed monitoring program both in terms of frequency and number of wells, the use of monitoring of production wells, and whether DWR could cover the extra cost of the seller using DWR wells in their monitoring network as was done in 2014.	A meeting with the stakeholders on groundwater issues was held February 12, 2015. It was very productive. DWR agreed to cover the extra cost of the sellers using DWR wells with drought funding provided by the State during 2015, but will likely not have funding in the future.
Crop Idling	Consider fields where winter wheat is being grown as eligible acreage for a crop idling program involving rice in the following spring and summer	This proposal was reviewed. However, double cropping winter wheat and rice is not a common practice because growing winter wheat typically precludes the planting of rice in the spring. It is unlikely rice would be planted absent the transfer.
	Allow groundwater substitution transfers in October based on pumping for rice straw decomposition	There are many technical issues that must be addressed. A pilot program may be developed by water users and could be considered by DWR and USBR in the near future.

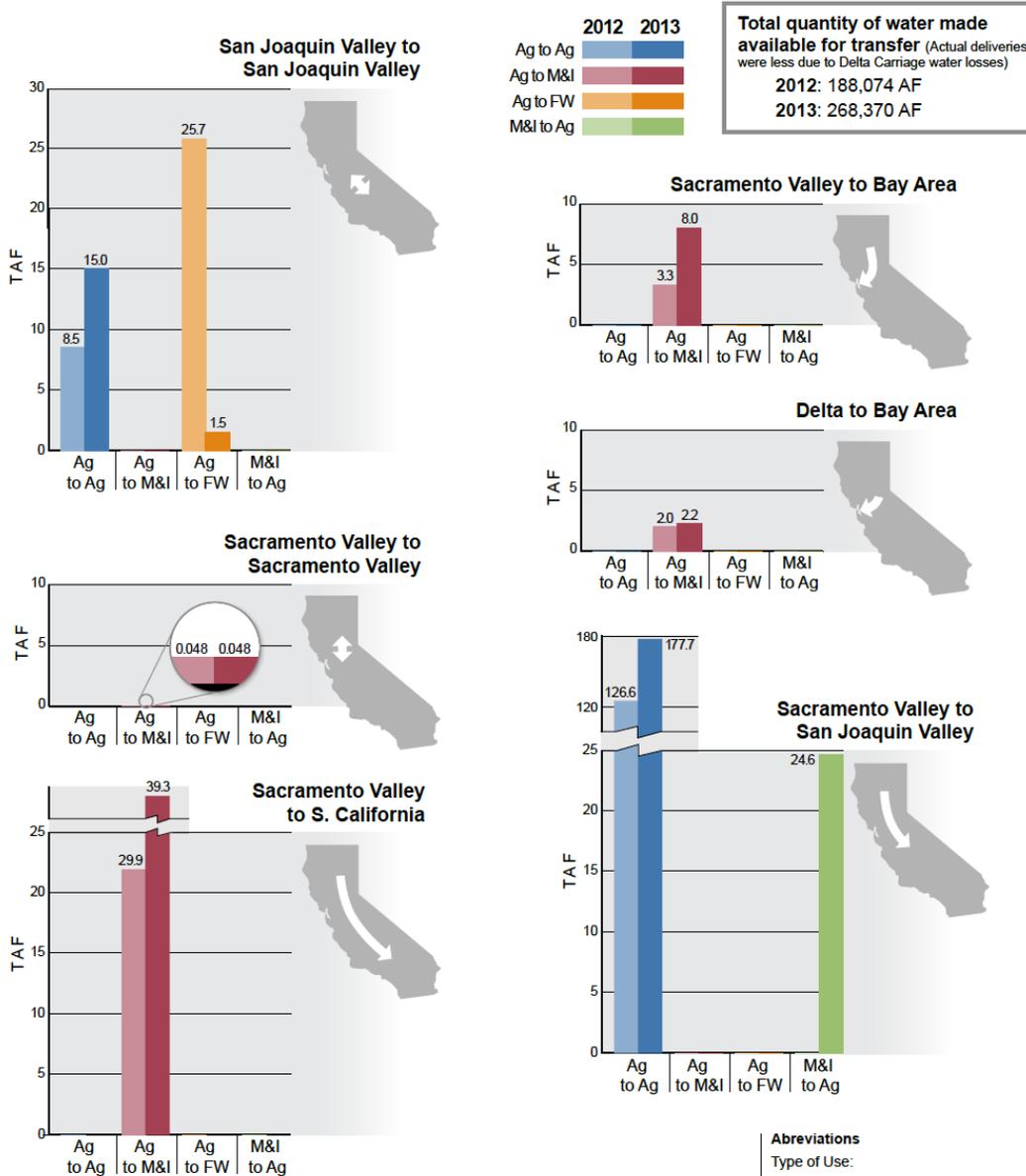
Suggestions for Improvements Not Accepted in 2015

Topic Area	Suggestion	Resolution
General	DWR should develop a Long-Term Water Transfer EIR like USBR has done.	This is an option under consideration, but would require an extensive commitment of resources and coordination with proposed buyers and sellers. It is not likely to be initiated in the near term.
DWR Agreements	Consider the development and use of two 2-party agreements rather than the current one 3-party conveyance agreement.	This was considered, but rejected because there are contracting considerations that cannot be captured with the use of a 2 party agreement template.
	Use USBR agreements with the sellers to make 1810 <i>et seq.</i> findings rather than separate agreement between the seller and DWR.	Provisions in DWR/Seller agreements go beyond information required for making 1810 <i>et seq.</i> findings. These agreements are needed to address the timing and quantities of water being made available and the full disclosure of risks.
Water Transfer White Paper	Allow stakeholder comment before it is finalized for use in 2015	This comment was received too late for the 2015 document. This could be considered for the future.
Legal	DWR should define “injury” as “substantial injury”.	The term “substantial injury” is a statutory term used for long-term water transfer (Water Code Section 1735). All other Water Code sections use the term “injury”.
	DWR should consider Water Code changes to allow pre-1914 water users to take advantage of the Water Code Section 1729 CEQA exemption for temporary water transfers.	This is not a DWR issue, and would require legislation.

## Attachment 2



### Non-Project Water Transfers within the Sacramento/San Joaquin Watersheds

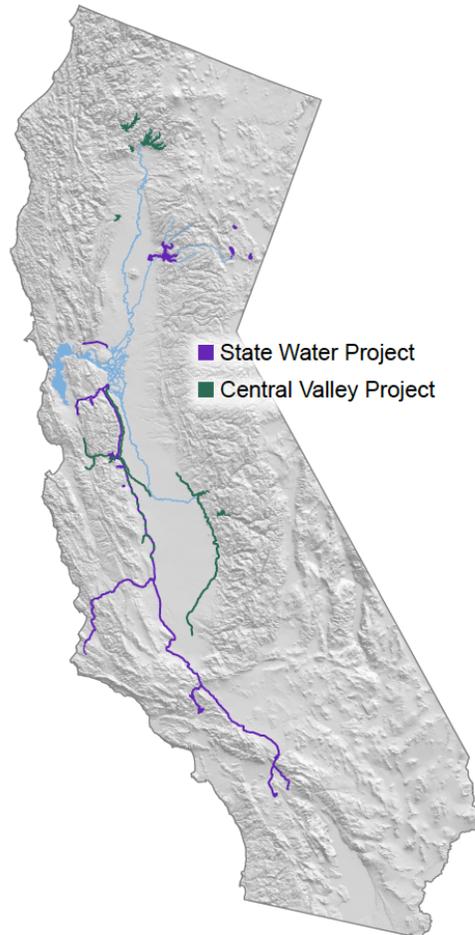
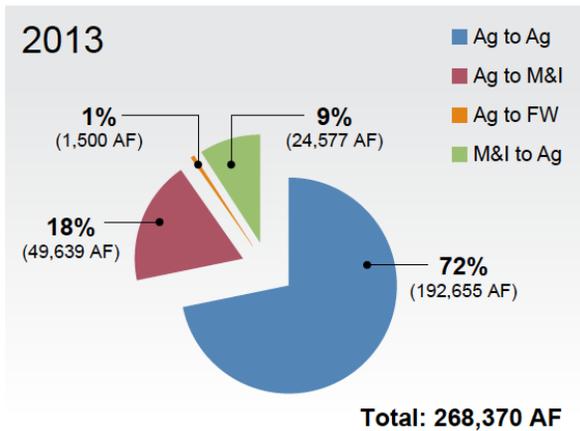
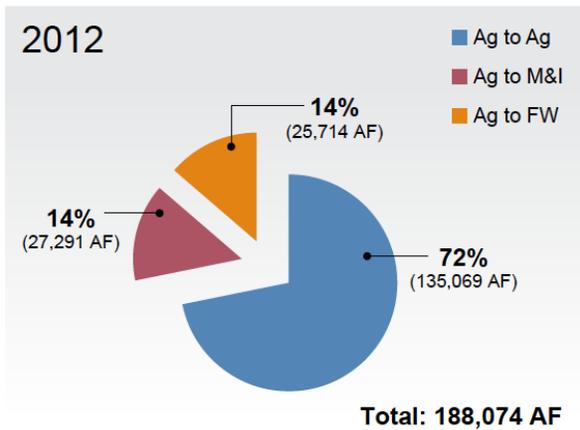


The figures above include transfers requiring the approval of the SWRCB, including Yuba accord transfers, as well as transfers of water diverted under pre-1914 water rights. Transfers and exchanges of SWP and CVP water are not included. Operational issues delayed the export of most transfer water made available from the Feather River in 2012 until 2013. For 2013, a portion of water transfers to certain CVP contractors was exported through Jones Pumping Plant in July. Water was moved during the transfer period of July-September. The total amount of water pumped through Banks Pumping Plant was 2.37 MAF in 2012 and 1.18 MAF in 2013. Data is preliminary.

**Abbreviations**  
 Type of Use:  
 Ag Agriculture  
 M&I Municipal and Industrial  
 FW Fish and Wildlife  
 Measurements:  
 AF Acre-foot  
 TAF Thousand Acre-feet  
 MAF Million Acre-feet



**Non-Project Water Transfers within the Sacramento/San Joaquin Watersheds**



*The figures above include transfers requiring the approval of the SWRCB, including Yuba accord transfers, as well as transfers of water diverted under pre-1914 water rights. Transfers and exchanges of SWP and CVP water are not included. Operational issues delayed the export of most transfer water made available from the Feather River in 2012 until 2013. For 2013, a portion of water transfers to certain CVP contractors was exported through Jones Pumping Plant in July. Water was moved during the transfer period of July-September. The total amount of water pumped through Banks Pumping Plant was 2.37 MAF in 2012 and 1.18 MAF in 2013. Data is preliminary.*

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