

# RECLAMATION

*Managing Water in the West*

## **Environmental Assessment**

# **Temporary Transfer of CVP Water from the City of Redding to the Bella Vista Water District in 2014**

**EA-14-05-NCAO**



**U.S. Department of the Interior  
Bureau of Reclamation  
Mid Pacific Region**

**July 2014**

## **Mission Statements**

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitment to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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## List of Acronyms and Abbreviations

AF	Acre-feet
CEQ	Council on Environmental Quality
CFS	Cubic Feet per Second
City	City of Redding
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
District	Bella Vista Water District
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
ITA	Indian Trust Assets
M&I	Municipal and Industrial
NEPA	National Environmental Policy Act
Reclamation	Bureau of Reclamation
USGS	United States Geological Survey

# Section 1 Introduction

## 1.1 Background

The Bureau of Reclamation proposes to approve a 1-year transfer of up to 1,200 acre-feet (AF) of Central Valley Project (Project) water from the City of Redding (City) under Federal Contract No. 14-06-200-2871A-R-1 to the Bella Vista Water District (District). Earlier than normal groundwater pumping and corresponding curtailment of surface water production by the City allowed the City to realize a surplus of Project water available for transfer in 2014.

The District also is a Project water service contractor in the same area of origin as the City and therefore, the transfer will be conducted in accordance with Section 3405(a)(1)(M) of the Central Valley Project Improvement Act (CVPIA).

The request from the District to transfer water stems from the projected insufficient water supply to meet current year municipal and industrial (M&I) needs of the District in spite of implementing conservation measures.

## 1.2 Need for the Proposal

The purpose of the project is to alleviate an unexpected shortfall in water supply to support M&I needs of the areas served by the District's water service contract (No. 14-06-200-851A-LTR1). Projected need for this water occurs from July through October 2014. The 2014 CVP water allocation to the District was 3,657 AF of Project Water when in a normal year they would receive 24,578 AF of Project Water available for diversion. Additionally, the District's Board of Directors has determined that voluntary water conservation measures will not be adequate to accommodate the anticipated demand for water without depleting the water supply available to the Bella Vista Water District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

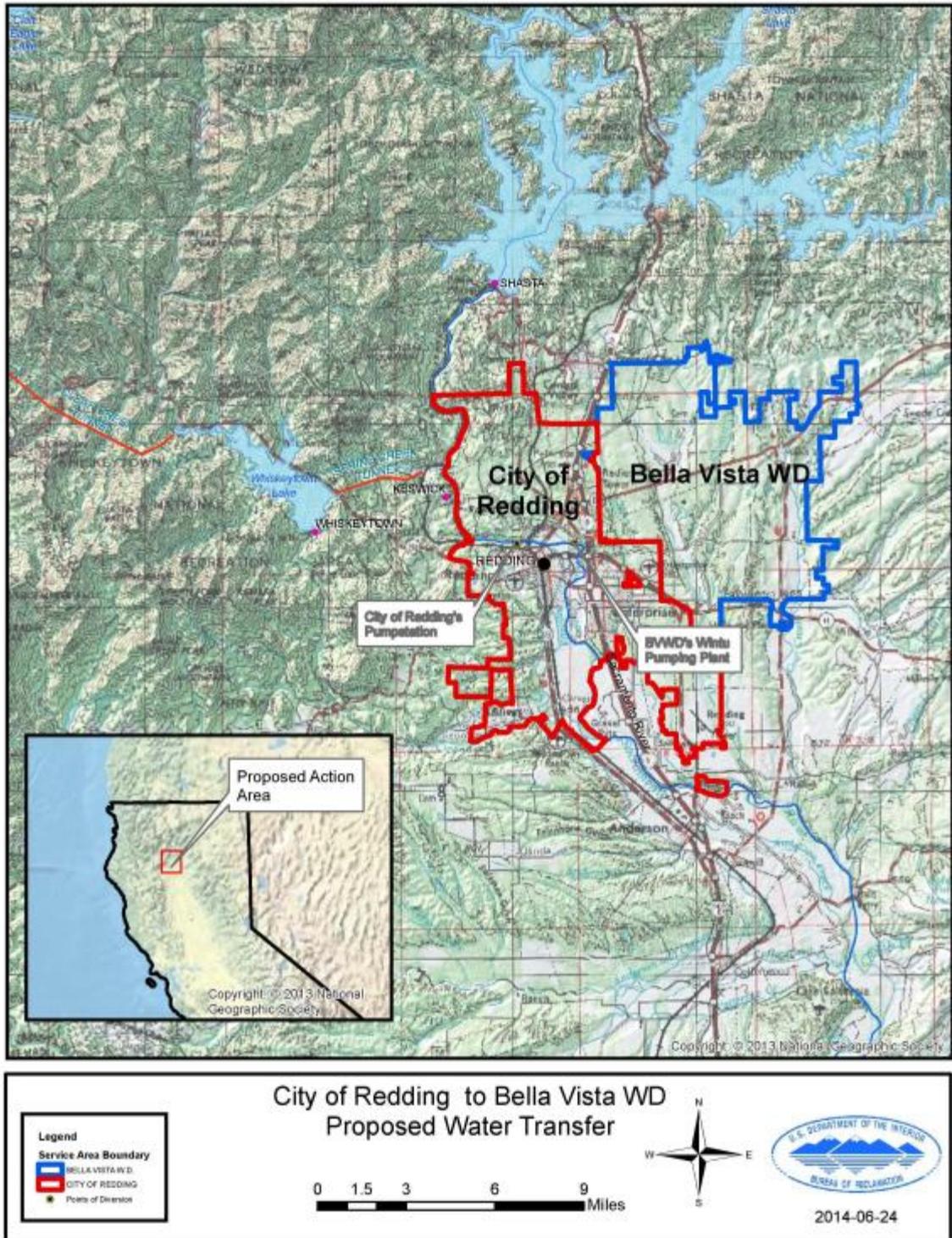
## 1.3 Scope

This EA has been prepared to examine the potential impacts of approving the temporary transfer of up to 1,200 AF of Project Water from the City to the District from June through September 30, 2014. For purposes of this EA, the action area includes areas within the U.S. Geological Survey (USGS) quadrangles of Redding and Enterprise, located in Shasta County (Figure 1.1).

## 1.4 Resources of Potential Concern

This EA analyzes the affected environment of the Proposed Action and No Action Alternatives in order to determine the potential direct and indirect and cumulative effects to physical and biological resources.

Figure 1-1. Project Site Location



## Section 2 Alternatives Including Proposed Action

### 2.1 No Action Alternative

The No Action Alternative would consist of Reclamation not approving the transfer of 1,200 AF of Project water from the City to the District. The City would retain the right to use this water pursuant to its contract obligations.

### 2.2 Proposed Action Alternative

The Proposed Action is approval of the transfer of up to 1,200 AF of Project water from the City to the District from July through October, 2014. The schedule of maximum quantities transferred in each month from July through October is 200, 150, 700, and 150 AF.

This transfer water is a contractual entitlement under the water service contract between Reclamation and the City (Contract# 14-06-200-2871A-R-1), which would be used to augment the District's water supply primarily for municipal and industrial purposes. The District is also a Project contractor in the same area of origin as the City, and therefore the transfer would be conducted in accordance with Section 3405(a)(1)(M) of the CVPIA.

The Project water to be transferred, as in the No Action Alternative, would originate from either Shasta Lake or Trinity Lake and eventually make its way through several diversions and power plants for eventual release to the Sacramento River at the Keswick Dam (See Figure 1.1). Water would be withdrawn at the existing Wintu Pump Station operated by the District, which is located 4.8 miles downstream of the Keswick Powerhouse and Dam. The accounting of this water would occur at the Wintu Pump Station.

In addition, the water transfer would be subject to the following transfer guidelines:

- Use existing facilities and operations.
- Comply with all applicable Federal, state, local, or tribal laws or requirements imposed for the protection of the environment and Indian Trust Assets (ITAs).
- Occur between willing buyers and willing sellers.

## Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environmental resources and the environmental consequences that could result from the Proposed Action and the No Action Alternative.

### 3.1 Physical Resources

#### 3.1.1 Affected Environment

##### **City of Redding**

The City of Redding is located in Shasta County, at the northern end of the Sacramento Valley, and is the largest urban center between Sacramento and the Oregon border. The City has a population of approximately 92,000 people. The City's corporate boundary encompasses approximately 60-square miles, with relatively low density development in many older areas of the City. The City provides CVP and non-CVP water service to over 28,000 connections of which the majority is the single family customer type (City of Redding 2012). Connections provide water primarily for M&I uses and a small number of agricultural uses.

The City possesses two Reclamation contracts—the Redding Contract (No.14-06-200-2871A-R-1) and Buckeye Contract (No. 14-06-200-5272A-LTR1). Annual entitlements under these contracts are 21,000 and 6,140 AF, respectively. Source water for the Redding Contract is the Sacramento River, whereas the Buckeye Contract is generally Whiskeytown Lake. These allocations are subject to reductions in periods of drought. In 2014, these allocations were reduced by 25% and 50% in accordance with the provisions of the contracts.

Water conservation efforts are in place in many areas of Northern California. On February 18, the City Council implemented Stage 1 of the City's Drought Management Plan, calling for voluntary conservation of 15 percent due to the Governor declaring a Drought State of Emergency for the State of California. In recognition of the crisis, the City began pumping groundwater earlier than typical to ensure availability of supplies to meet their needs. In some years groundwater can comprise as much as 25% of the annual supply.

For the purposes of this review, we assume the City could use the transfer water in question for approved purposes, and this water would be diverted at the City's diversion at Diestelhorst Bridge, which is located 2.8 miles below Keswick Dam.

##### **Bella Vista Water District**

The District is a publicly owned water agency formed in 1957 to serve agricultural irrigation demands (California Water Code Division 13, Sections 34000 through

38501). The District service area is located generally east of Redding and south of Shasta Lake.

The District's primary water source is the Sacramento River. The District supply system consists of the Wintu Pump Station on the Sacramento River and five wells. Water intakes at the Wintu Pump Station are equipped with screens to prevent listed fish species from entering their water distribution system. Distribution facilities include a network of transmission and distribution pipelines, three storage tanks, nine booster pump stations, and pressure-reducing facilities. The major distribution piping was initially constructed by Reclamation but has been expanded over time. The main supply system is still federally owned, but it was constructed solely for use by the District.

The District's contract allows for the diversion of up to 24,578 acre-feet per year of CVP water. The contract is subject to reduction during dry years. In the critical year that California is presently experiencing, the 2014 allocation to the District was zero (0) water for agricultural use and fifty percent (50%) of the previous 3 years of historical use for municipal and industrial (M&I) purposes. This reduction resulted in a 2014 allocation of 3,657 AF of Project water when in a normal year they would receive 7,313 AF for M&I purposes.. Like the City, the District has called for voluntary conservation of 15 percent due to the Governor declaring a Drought State of Emergency for the State of California on the District's 4,500 residential connections.

Groundwater is used to supplement surface water supply. In drought years, these wells can constitute up to 20 percent of the water supply. However, the aquifers in the district have limited yield, so it is not practical to greatly increase the production of wells to reliably augment water supplies.

### **3.1.2 Environmental Consequences**

#### **No Action**

Under the No Action alternative, the District would be forced to operate within the confines of the available water under its water service contract, use of groundwater, and/or acquired water from other willing sellers. The District determined that voluntary water conservation measures would not likely be adequate to accommodate the anticipated demand for water without depleting the water supply available to the District to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. Shortfalls in water supply to many M&I customers could occur, which could invoke further restrictions on water use in the District.

#### **Proposed Action**

Transfer of 1,200 AF from the City to the District would augment water supplies to meet the District's needs through the period of highest demand, July through October.

The Proposed Action would not substantially affect physical resources at the points of diversion, in the conveyance facilities, or at the places of use. Water deliveries would be restricted to use of existing facilities, and only the point of diversion would change. In this case, the diversion would move from one approved point of diversion to the other (i.e. from the Diestelhorst pump station to the Wintu Pump Station), which is two miles further downstream in the mainstem Sacramento River. As a consequence, the Proposed Action would only result in a minor (and likely immeasurable) increase in flow in the 2-mile stretch between these two diversions from July through October. For example, in the month of greatest demand (September), the District could use up to 700 AF. Assuming an even distribution of this quantity over the month, the average daily increase in flow to this reach of the Sacramento River would be about 12 cubic feet per second (cfs). Placing this in perspective, this would amount to a 0.4 percent increase in flow assuming a lower than average flow at Keswick of 3,250 cfs, which could occur in this critically dry year.

Because the Proposed Action would only influence the place of diversion in the Sacramento River, the effects to upstream operations including power production and cold water storage, would not be affected.

Use of existing facilities and operations and the absence of land use changes within the transferor service areas caused by this action precludes any adverse effect on unique geological features such as wetlands, wild or scenic rivers, refuges, floodplains, rivers placed on the Nationwide Rivers Inventory, and prime or unique farmlands.

## 3.2 Biological Resources

### 3.2.1 Affected Environment

On June 25, 2014, the U.S. Fish and Wildlife Service's online database was used to identify federally listed, proposed and candidate species potentially occurring within the action area bounded by the USGS 7.5-min quadrangles for Redding and Enterprise. Table 3.1 includes the federally listed species potentially occurring within these quadrangles, their status, project effects, and a summary of the rationale supporting the effects determination.

Based on the environmental review of the project effects to Physical Resources (Section 3.1), Reclamation has determined that only 4 species of fish could possibly be affected by the Proposed Action; these include: the Chinook salmon-Sacramento River winter-run Chinook Salmon (*Oncorhynchus tshawytscha*), Central Valley spring-run Chinook salmon (*O. tshawytscha*), Central Valley steelhead (*O. mykiss*), and North American green sturgeon (*Acipenser medirostris*).

**Table 3-1. Federally listed species potentially occurring within the Redding and Enterprise quads (7.5-minute series), their status, project effects, and a summary of the rationale supporting the effects determination. Source: the U. S. Fish and Wildlife website.**

<b>Species</b>	<b>Status<sup>1</sup></b>	<b>Effects<sup>2</sup></b>	<b>Summary Basis for ESA Determination</b>
<b>AMPHIBIANS</b>			
California red-legged frog ( <i>Rana draytonii</i> )	E	NE	Species absent from Sacramento River Valley floor and from vicinity of the Proposed Action area. No suitable habitat in the Proposed Action area. No change to wetland or riparian habitat
<b>BIRDS</b>			
northern spotted owl ( <i>Strix occidentalis caurina</i> )	T	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
Western yellow-billed cuckoo ( <i>Coccyzus americanus occidentalis</i> )	C	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
<b>FISH</b>			
Central Valley steelhead ( <i>Oncorhynchus mykiss</i> )	T, X	NE	No effect to flow of any water way or coldwater resource within the species' range would be affected by the proposed action.
Chinook salmon - Central Valley spring-run ( <i>Oncorhynchus tshawytscha</i> )	T, X	NE	No effect to flow of any water way or coldwater resource within the species' range would be affected by the proposed action.
Chinook salmon - Sacramento River winter-run ( <i>Oncorhynchus tshawytscha</i> )	E, X	NE	No effect to flow of any water way or coldwater resource within the species' range would be affected by the proposed action.
delta smelt ( <i>Hypomesus transpacificus</i> )	T	NE	No effect to flow of any water way within the species' range would be affected by the proposed action.

Species	Status <sup>1</sup>	Effects <sup>2</sup>	Summary Basis for ESA Determination
North American green sturgeon ( <i>Acipenser medirostris</i> )	T	NE	No effect to flow of any water way or coldwater resource within the species' range would be affected by the proposed action.
<b>INVERTEBRATES</b>			
Conservancy fairy shrimp ( <i>Branchinecta conservatio</i> )	E,X	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
Valley elderberry longhorn beetle ( <i>Desmocerus californicus dimorphus</i> )	T	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
Vernal pool fairy shrimp ( <i>Branchinecta lynchi</i> )	T, X	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
Vernal pool tadpole shrimp ( <i>Lepidurus packardii</i> )	E, X	NE	Found or believed to be in Glenn County. No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed.
<b>PLANTS</b>			
slender Orcutt grass ( <i>Orcuttia tenuis</i> )	T, X	NE	No land use changes would occur to habitat for this species as a result of the action, no conversion of habitat, and no new facilities would be constructed
<p>1 Status= Listing of federally special status species, unless otherwise indicated.  E: Listed as Endangered.  T: Listed as Threatened.  X: Critical habitat designated</p> <p>2 Effects =  NE = No Effect determination.</p>			

### **3.2.2 Environmental Consequences**

#### **No Action Alternative**

Under the No Action Alternative, current biological resource conditions in the action area would continue.

#### **Proposed Action**

Under the Proposed Action, the diversion point for transferred water would move two miles further downstream from the City's potential point of diversion at the Diestelhorst Bridge. In doing so, this water would provide a minor flow increase to a larger segment of the Sacramento before being diverted. As portrayed in Section 3.1 (Physical Resources Section), however, the effects of the increase are likely too small to be measureable. As a consequence there would be no effect to any habitat within this reach, and therefore any listed species that may be present.

Because there would be no effect to the cold water pool from the Proposed Action, there would not be direct or latent effects to the cold-water resource that is used to protect several of these fish species below the Keswick Dam.

The diversion at Wintu Pump Station includes screened intakes to prevent listed fish species from entering the water distribution system.

### **3.3 Resources Eliminated from Further Analysis**

Reclamation analyzed the affected environment of the Proposed Action and No Action Alternatives and has determined that there is no potential for direct, indirect, or cumulative effects to the following resources:

#### **Cultural Resources**

The Proposed Action is similar to the No Action Alternative in that it will not produce any ground disturbances, it will not result in the construction of new facilities or the modification of existing facilities, and it will not result in any changes in land use. As a consequence, Reclamation determined on July 2, 2014, that the Proposed Action has no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3 (a)(1) (Attachment 1).

#### **Socio-Economic Resources**

Allowing the transfer would not adversely affect the quality of human environment but rather improve it for public health or safety that prevents conflict concerning water use during this critically dry year. Furthermore, the Proposed Action would not increase the amount of water available or the amount of irrigated land within the Sacramento Valley but merely ensure that the District receives adequate water and prevent M&I shortages that could otherwise negatively affect regional economics.

## **Environmental Justice**

The No Action and Proposed Action would have different outcomes. Under the No Action Alternative, there could be segments of the District's service area where minority or low-income populations could be negatively affected by the hardship created by lack of water or the ability to pay for water at elevated prices. In contrast, the Proposed Action would increase the availability of water that would provide the District the ability to augment existing water supplies to increase the likelihood that minorities or low-income populations are not affected.

## **Indian Trust Assets**

Reclamation determined on July 2, 2014, that the Proposed Action does not have a potential to impact Indian Trust Assets (Attachment 2)

Additionally, the transaction would occur between a willing buyer and seller and comply with any applicable Federal, state, local or tribal law or requirements imposed for protection of the environment.

## **Cumulative Impacts**

According to the CEQ regulations for implementing the procedural provisions of NEPA, a cumulative impact is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

There are no other known past, present, or reasonably foreseeable actions that would cumulatively result in significant impacts to the human environment when taking into consideration the actions analyzed in this EA.

# **Section 4 Consultation and Coordination**

## **4.1 Endangered Species Act (16 U.S.C. 1521 et seq.)**

Reclamation determined that the Proposed Action would have no effect on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat; therefore, no consultation was required under Section 7 of the ESA.

# **Section 5 References**

City of Redding, 2012. City of Redding 2011 Federal Water Management Plan. Final Draft, July 17, 2012.

Attachment 1. Cultural Resource Concurrence

**CULTURAL RESOURCE COMPLIANCE**  
**Mid-Pacific Region**  
**Division of Environmental Affairs**  
**Cultural Resources Branch**

MP-153 Tracking Number: 14-NCAO-245

Project Name: Temporary Transfer of Project Water from the City of Redding to Bella Vista Water District in 2014

NEPA Document: EA-14-05-NCAO

MP 153 Cultural Resources Reviewer: Scott Williams



Date: 7/2/14

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This proposed undertaking by Reclamation is to approve a 1-year transfer of up to 1,200 acre-feet (AF) of Central Valley Project (Project) water from the City of Redding (City) under Federal Contract No. 14-06-200-2871A-R-1 to Bella Vista Water District (District). This is the type of undertaking that does not have the potential to cause effects to historic properties, should such properties be present, pursuant to the NHPA Section 106 regulations codified at 36 CFR § 800.3(a)(1). Reclamation has no further obligations under NHPA Section 106, pursuant to 36 CFR § 800.3(a)(1).

After reviewing the EA-14-05-NCAO, Reclamation has determined that this action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places. In addition, since no modification of the existing Federal or State facilities is necessary and use of these facilities will remain within capacity. The proposed action will not result in any ground disturbance.

This document is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.

CC: Cultural Resources Branch (MP-153), Anastasia Leigh – Regional Environmental Officer (MP-150)

## Attachment 2. ITA Letter of Concurrence

7/2/2014

DEPARTMENT OF THE INTERIOR Mail - CR & ITA review: DEA - WTransfer from City of Redding to BVWD



Zedonis, Paul <pzedonis@usbr.gov>

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### CR & ITA review: DEA - WTransfer from City of Redding to BVWD

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RIVERA, PATRICIA <privera@usbr.gov>

Wed, Jul 2, 2014 at 9:57 AM

To: "Zedonis, Paul" <pzedonis@usbr.gov>

Cc: Kristi Seabrook <kseabrook@usbr.gov>, Mary Williams <marywilliams@usbr.gov>

Paul,

I reviewed the proposed action to proposes to approve a 1-year transfer of up to 1,200 acre-feet (AF) of Central Valley Project (Project) water from the City of Redding (City) under Federal Contract No. 14-06-200-2871A-R-1 to Bella Vista Water District (District).

The proposed action does not have a potential to impact Indian Trust Assets.

Patricia Rivera  
Native American Affairs Program Manager  
US Bureau of Reclamation  
Mid-Pacific Region  
2800 Sacramento, California 95825  
(916) 978-5194

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Kristi please log in. Thanks. No further action needed.