

RECLAMATION

Managing Water in the West

Environmental Assessment

Five-Year Warren Act Contracts for Conveyance of Groundwater in the Tehama- Colusa and Corning Canals – Contract Years 2013 through 2017 (March 1, 2013, through February 28, 2018)

EA 13-03



**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Northern California Area Office**

May 2013

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.

Table of Contents

Table of Contents	i
List of Figures & Tables	ii
Section 1 Introduction.....	1
1.1 Background.....	1
1.2 Need for the Proposal.....	2
1.3 Relevant Legal and Statutory Authorities.....	2
1.4 Scope.....	3
1.5 Resources of Potential Concern.....	5
Section 2 Alternatives Including the Proposed Action.....	6
2.1 No Action Alternative.....	6
2.2 Proposed Action Alternative.....	6
2.2.1 Environmental Commitments.....	7
Section 3 Affected Environment & Environmental Consequences.....	8
3.1 Water Resources.....	8
3.1.1 Affected Environment.....	8
3.1.2 Environmental Consequences.....	9
3.2 Biological Resources.....	10
3.2.1 Affected Environment.....	10
3.2.2 Environmental Consequences.....	14
3.3 Socioeconomic Resources.....	14
3.3.1 Affected Environment.....	14
3.3.2 Environmental Consequences.....	14
3.4 Resources Not Analyzed in Detail.....	15
Section 4 Consultation and Coordination.....	18
4.1 Public Review Period.....	18
4.2 Endangered Species Act (16 USC § 1531 et seq.).....	18
4.3 Migratory Bird Treaty Act (MBTA) (16 U.S.C. § 703 et seq.).....	18
Section 5 References.....	19

List of Figures & Tables

Figure 1-1 WD Service Areas considered in the Proposed Action..... 4

Table 1-1 WDs that have formally requested or could request a WAC for conveyance of groundwater in the Canals 3

Table 2-1 WDs that could potentially request WACs for conveyance of groundwater in the Canals..... 6

Table 3-1. Contract Water Supplies for WDs served by the SCU of the CVP..... 8

Table 3-2. Federal Status Species for SCU of the CVP..... 10

List of Acronyms and Abbreviations

AF	Acre-Feet
CAA	Clean Air Act
Canals	Tehama-Colusa and Corning Canals
CC	Corning Canal
CCWD	Colusa County Water District
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	Cubic Feet Per Second
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
Delta	Sacramento San Joaquin Delta
EA	Environmental Assessment
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
ITA	Indian Trust Assets
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
M&I	Municipal and Industrial use
Reclamation	Bureau of Reclamation
SCU	Sacramento Canals Unit
TCC	Tehama Colusa Canal
the Department	Department of the Interior
Service	U. S. Fish and Wildlife Service
WAC	Warren Act Contracts
WD	Water District or Mutual Water Company

Section 1 Introduction

The Bureau of Reclamation proposes to issue 5-year Warren Act Contracts (WACs) to requesting Central Valley Project (CVP or Project) water service contractors within the Sacramento Canals Unit (SCU) to convey groundwater in Federal facilities.

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between April 12, 2013 and May 13, 2013. No comments were received. All changes to the Draft EA/FONSI are indicated by a vertical line in the left margin of the final EA/FONSI.

1.1 Background

Seven water districts (WDs) within the SCU of the CVP request approval of 5-year WACs to pump groundwater into the Tehama-Colusa and Corning Canals (Canals) to supplement their supply to avoid shortages and potential loss of permanent crops (Table 1.1). In addition, other WDs served by the Canals could request WACs if drought-like conditions occur.

The Warren Act (Act of February 21, 1911, CH. 141, (36 STAT. 925) authorizes Reclamation to negotiate agreements to store or convey Non-Project Water when excess capacity is available in Federal facilities. Section 14 of the Reclamation Project Act of 1939 allows for contracts for exchange or replacement of water. Water rights Section 3408(c) of P.L. 102-575, Title 34, Central Valley Project Improvement Act (CVPIA) allows for the exchange, impoundment, storage, carriage, and delivery of CVP and Non-Project Water for domestic, municipal, industrial, fish and wildlife, and any other beneficial purpose. Over the past 20 years, Reclamation has issued WACs for groundwater pumping into the Canals. Most recently, Reclamation approved 1-year WACs for 3 of the 17 WDs of the SCU to convey groundwater for contract water year 2012 (Reclamation 2012).

This environmental assessment (EA) evaluates the proposed action to approve WACs to pump groundwater into the Tehama-Colusa and/or Corning Canal (Canals) during the period of March 1, 2013, through February 28, 2018; a contract water year begins March 1 and ends February 28 of the following calendar year. The evaluation describes the existing environmental resources in the Proposed Action area, evaluates the effects of the No Action and the Proposed Action Alternatives on these resources, and proposes measures to avoid, minimize, or mitigate any adverse effects, if any, for approval of WACs.

This EA was prepared in accordance with NEPA, Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), and Department of the Interior regulations (43 CFR Part 46). Reclamation has also prepared a Finding of No Significant Impact (FONSI), which explains why the Proposed Action would not have any significant effects on the human or natural environment.

1.2 Need for the Proposal

California has experienced droughts that have reduced water supplies to many WDs of the SCU of the CVP in the past and are likely to be impacted by such conditions in the near future. Execution of WACs provides a mechanism to allow Non-Project Water (i.e. groundwater) in CVP facilities to supplement water supplies to maintain perennial crops in times of greatest need.

1.3 Relevant Legal and Statutory Authorities

Several Federal laws, permits, licenses, and policy requirements have directed, limited, or guided the National Environmental Policy Act analysis and decision-making process of this EA and include the following as amended, updated, and/or superseded (all of which are incorporated by reference):

- CVPIA, Section 3405(a), authorizes all individuals or districts who receive CVP water under water service or repayment contracts, water rights settlement contracts, or exchange contracts to transfer, subject to certain terms and conditions, all or a portion of the water subject to such contract to any other California water users or water agency, State or Federal agency, Indian Tribe, or private non-profit organization for CVP purposes or any purpose recognized as beneficial under applicable State law.
- CVPIA, Section 3408(c), authorizes the Secretary of the Interior to enter into contracts pursuant to Reclamation law and this title with any Federal agency, California water user or water agency, State agency, or private nonprofit organization for the exchange, impoundment, storage, carriage, and delivery of CVP and Non-Project Water for domestic, municipal, industrial, fish and wildlife, and any other beneficial purpose, except that nothing in this subsection shall be deemed to supersede the provisions of Section 103 of Public Law 99-546 (100 Stat. 3051).

Reclamation completed the Final Programmatic Environmental Impact Statement for the CVPIA in October 1999, which analyzed alternatives and implementation of the CVPIA. The Record of Decision was signed on January 9, 2001.

- Reclamation States Emergency Drought Relief Act - Section 102 of the Reclamation States Emergency Drought Relief Act of 1991 provides mitigation relief in times of drought through the use of Federal facilities and contracts for temporary water supplies, storage and conveyance of Non-Project Water inside and outside CVP service areas for municipal and industrial (M&I), fish and wildlife and agricultural uses.
- Reclamation Reform Act, October 12, 1982.

- Warren Act - The Warren Act (Act of February 21, 1911, Chapter 141 (36 Stat. 925)) authorizes Reclamation to enter into contracts to impound, store, and/or convey Non-Project Water when excess capacity is available in Federal facilities.
- Water Quality Standards - Reclamation requires that the operation and maintenance of CVP facilities shall be performed in such a manner as is practical to maintain the quality of raw water at the highest level that is reasonably attainable. Water quality and monitoring requirements are established by Reclamation and are instituted to protect water quality in Federal facilities by ensuring that imported Non-Project Water does not impair existing uses or negatively impact existing water quality conditions. These standards are updated periodically. The water quality standards are the maximum concentration of certain contaminants that may occur in each source of Non-Project Water. The water quality standards for Non-Project Water to be stored and conveyed in Federal facilities are provided in Appendix A.

1.4 Scope

This EA has been prepared to examine the potential impacts on environmental resources as a result of the No Action Alternative of not conveying Non-Project Water (i.e. groundwater) in Federal facilities and the Proposed Action to allow conveyance of groundwater in Federal facilities. WDs considered in the effects analysis are provided in Table 1.1 and Figure 1.1.

The timeframe considered in this EA would be 5 years (contract years: 2013 through 2017) (Calendar years: March 1, 2013 through February 28, 2018).

Table 1-1 WDs that have formally requested or could request a WAC for conveyance of groundwater in the Canals

WD and Canal Use ^a	
Corning Canal	Tehama-Colusa Canal
Corning WD	4-M WD
Proberta WD	Colusa County WD
Thomes Creek WD	Cortina WD
	Davis WD
	Dunnigan WD
	Glenn Valley WD
	Glide WD
	Holthouse WD
	Kirkwood WD
	Kanawha WD
	La Grande WD
	Myers-Marsh Mutual Water Company
	Orland-Artois WD
	Westside WD

^a - Bolded names identify WDs formally requesting a WAC starting in 2013

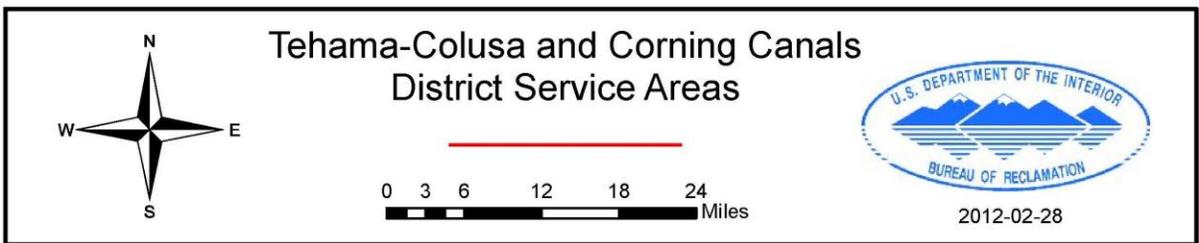
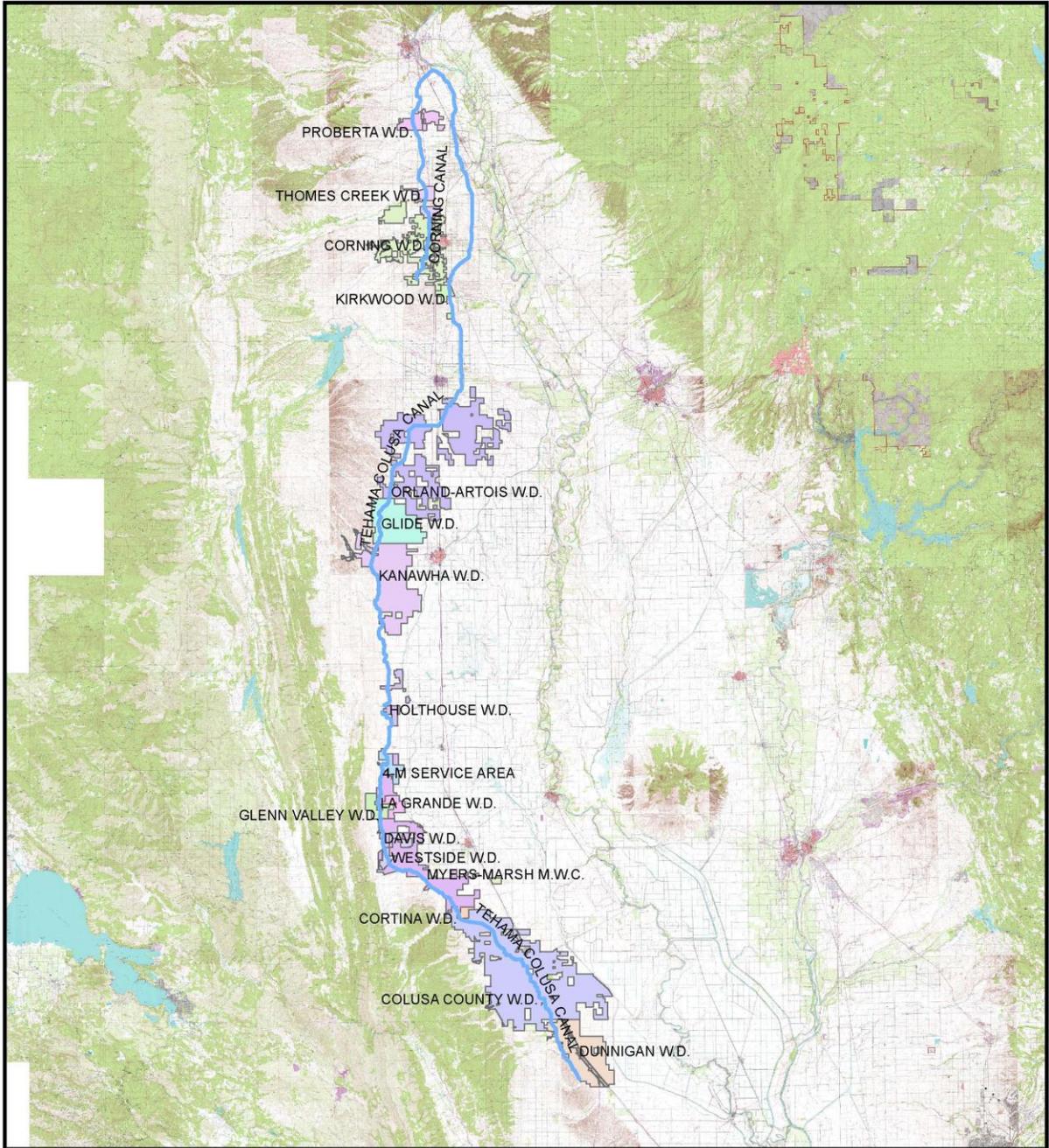


Figure 1-1 WD Service Areas considered in the Proposed Action

1.5 Resources of Potential Concern

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

Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis for comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Reclamation would not approve and issue WACs for the conveyance of up to 44,000 af of Non-Project groundwater in the Canals. Reliant WDs would be required to operate within the confines of the water supplies provided under their CVP water service contracts or obtain water by means other than transport through Federal facilities.

The existing approved WAC for the Colusa County Water District (CCWD) would remain in effect and only allow for up to 4,500 af of Non-Project groundwater to be conveyed in Federal facilities through contract water year 2014 (Reclamation 2005).

2.2 Proposed Action Alternative

Reclamation proposes to issue WACs to 7 or more of the 17 CVP water service contractors served by the SCU for up to a 5-year period beginning with water contract year 2013. WD-specific quantities of groundwater that would be authorized to be conveyed in Reclamation facilities have been identified for CCWD, Corning WD, Cortina WD, Davis WD, Glenn Valley WD, Orland-Artois WD, and Westside WD (Table 2-1). Additionally, one or more of the remaining WDs served by the Canals could request WACs for use of the Canals; these WDs would be limited to a combined total of not more than 900 af. Combined, the quantity of groundwater that could be pumped in any one year could be up to 44,000 af (Table 2-1). Water considered for transport in Federal facilities, would be limited to groundwater pumped from existing wells and discharged to and removed from the Canals through existing facilities or through facilities reviewed and permitted on an individual basis. In addition, conveyance of groundwater in CVP facilities would be subject to available capacity and suitable quality and the environmental commitments identified in 2.2.1.

Table 2-1 WDs that could potentially request WACs for conveyance of groundwater in the Canals

WD	Service Canal	Water Quantity (af)
Colusa County WD ^a	TCC	22,000
Corning WD	CC	500
Cortina WD	TCC	1,000
Davis WD	TCC	3,500
Glenn Valley WD	TCC	300
Orland-Artois WD	TCC	10,800

WD	Service Canal	Water Quantity (af)
Westside WD	TCC	5,000
All other WDs combined	TCC/CC	900
Total	--	44,000

a - A WAC for conveying up to 4,500 af of Non-Project groundwater in the TCC in support of the CCWD remains valid through contract water year 2014 (Reclamation 2005). The volume identified here represents the maximum quantity that would be allowed in any year.

2.2.1 Environmental Commitments

Participating WDs shall also implement the following environmental commitments to reduce environmental consequences:

- Each participating WD would be required to confirm that the proposed pumping of groundwater would be compatible with local groundwater management plans. Each WD would be limited to pumping a quantity below the “safe yield” as established in their groundwater management plan or county-specific requirements, as applicable, in order to prevent groundwater overdraft and avoid adverse impacts.
- Water quality and monitoring requirements are established by Reclamation. Each contracted WD would be responsible for accurate water measurement and associated costs as well as assuring the Non-Project groundwater meets all Federal and California water quality standards and the Reclamation standards for acceptance of Non-Project groundwater prior to entering the Canals (See Appendix A). These standards ensure that water imported into the Canals does not impair existing uses, including downstream users, or negatively impact existing water quality conditions.
- The water would be used for irrigation and/or M&I purposes on established lands. There would be no new construction or excavation occurring as part of the Proposed Action. Pumping and conveyance would occur within existing wells, meters, pipes, water diversion, and field delivery facilities. No native or untilled land (fallow for 3 years or more) may be cultivated with the water involved with these actions.
- Each participating WD would comply with applicable Federal, state, or local air pollution laws and regulations.

Section 3 Affected Environment & Environmental Consequences

This section identifies the potentially affected environmental resources and the environmental consequences of implementing the No Action and Proposed Action Alternatives.

3.1 Water Resources

3.1.1 Affected Environment

CVP Facilities

Authorized in 1950, the SCU consists of Red Bluff Diversion Dam, Funks Dam, Corning Pumping Plant, and the Canals, serving areas north of Sacramento, California. The TCC begins at the Red Bluff Pumping Plant on the Sacramento River and extends south for approximately 110 miles flowing through the counties of Tehama, Glenn, Colusa, and Yolo. The TCC terminates about 2 miles south of Dunnigan. The initial capacity of the TCC is 2,500 cubic feet per second (cfs) diminishing to 1,700 cfs at the terminus. Fourteen WDs are served by the TCC.

The Corning Canal (CC) is 21 miles long, which also begins in Red Bluff, and terminates about 4 miles southwest of Corning, California. The CC has an initial diversion capacity of 500 cubic feet per second (cfs), gradually decreasing to 88 cubic feet per second at the terminus. Three WDs are served by the CC.

WDs

WDs served by the Canals have different CVP water supply contract quantities (Table 3.1). Under 100% allocation, approximately 319,000 af of CVP water can be delivered to these WDs, but in years of reduced allocations, this quantity can be reduced.

Groundwater is one source that has been actively used, in particular in drought years, to supplement water demands of the districts.

Table 3-1. Contract Water Supplies for WDs served by the SCU of the CVP

WD	100 % CVP Contract Volume (AF)
Corning WD	23,000
Proberta WD	3,500
Thomes Creek WD	6,400
4-M WD	5,700
Colusa County WD	68,164
Cortina WD	1,700
Davis WD	4,000
Dunnigan WD	19,000
Glenn Valley WD	1,730
Glide WD	10,500
Holthouse WD	2,450

WD	100 % CVP Contract Volume (AF)
Kanawha WD	45,000
Kirkwood WD	2,100
La Grande WD	7,200
Myers-Marsh Mutual Water Company	255
Orland-Artois WD	53,000
Westside WD	65,000
Totals	318,699

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue 5-year WACs to requesting CVP water service contractors of the SCU. Deliveries of CVP water supply would continue in accordance with the terms and conditions of the applicable district's CVP water service contracts. In water-short years, WDs would seek additional sources of water to meet demands including increased local groundwater pumping to meet demand. In accordance with Reclamations prior approval, the CCWD could use an existing WAC (through water contract year 2014) to transport up to 4,500 af of groundwater water in the TCC to meet demand.

Proposed Action

The Proposed Action would allow groundwater to be conveyed in CVP facilities when excess capacity is available. During years of reduced CVP supply, this excess capacity would afford opportunities to meet agricultural demand in areas of WDs that may otherwise not have available water to support their crops. The water would be used for irrigation and/ or M&I purposes on established lands. Pumping and conveyance would be limited to use of existing wells, meters, pipes, water diversion, and field delivery facilities and no new construction or excavation would occur. Additionally, no native or untilled land (fallow for 3 years or more) may be cultivated with the water involved with these actions. In doing so, implementing the Proposed Action avoids any adverse effects on unique geological features such as wetlands, wild or scenic rivers, refuges, floodplains, rivers placed on the Nationwide River Inventory, or prime or unique farmlands.

Additionally, several other environmental commitments associated with the Proposed Action alleviate other potential environmental concerns. These include the provision that water in each well must meet water quality standards prior to approval for conveyance. This provision ensures that water imported into the Canals does not impair existing uses, including downstream users, or negatively impact existing water quality condition. In addition, each participating WD would be limited to pumping a quantity below the "safe yield" as established in any groundwater management plan or any county-specific requirement, as applicable, in order to prevent groundwater overdraft and avoid adverse impacts.

Cumulative Effects

Cumulative impacts result from incremental impacts of the Proposed Action or No Action Alternatives when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

As in the past, hydrological conditions and other factors result in fluctuating water supplies that drives requests for water service actions. Annually, Reclamation reviews and approves a myriad of actions related to these water service actions. In some cases, multi-year projects are approved following environmental review. Reclamation has determined that the Proposed Action, and attendant environmental commitments, would not result in any adverse cumulative impacts to the water resources within the Canals or the WDs they serve.

3.2 Biological Resources

3.2.1 Affected Environment

Many of the natural habitats in the Central Valley have been converted to agricultural lands. Today, much of the Central Valley is intensely managed for pasture, orchard, vineyard, and row crops. Intensive management of land to support these crops has diminished the value of the habitat used by remaining native fish and wildlife species.

Federal listed threatened and endangered species that occur within or near the WDs served by the Canals are shown in Table 3-2. This list was generated by accessing and querying the U.S. Fish and Wildlife Service (Service Database: http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-form.cfm (Document ID 130327104446) for the following 7 ½ minute U.S. Geological Survey quadrangles: Dunnigan, Zamora, Wildwood School, Rumsey, Grimes, Williams, Cortina Creek, Arbuckle, Manor Slough, Salt Canyon, Logandale, Maxwell, Logan Ridge, Sites, Hamilton City, Orland, Willows, Fruto, Stone Valley, Corning, Kirkwood, Henleyville, Gerber, West of Gerber. Reclamation also queried the California Natural Diversity Database (CNDDDB) for records of protected species of the action area; these records were combined with the Service list to determine the likelihood of the presence of special status species or critical habitat within the action area (Table 3-2).

Table 3-2. Federal Status Species for SCU of the CVP

Species	Status ¹	Effects ²	Summary Basis for ESA Determination ³
AMPHIBIANS			
California red-legged frog (<i>Rana draytonii</i>)	E	NE	Absent: 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

Species	Status ¹	Effects ²	Summary Basis for ESA Determination ³
California tiger salamander (Sonoma County Population) (<i>Ambystoma californiense</i>)	T, X	NE	Possible. Found or believed to occur in Colusa, Glenn, and Yolo Counties. 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.
BIRDS			
bank swallow ⁴ (<i>Riparia riparia</i>)	T	NE	Possible. 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
northern spotted owl (<i>Strix occidentalis caurina</i>)	T	NE	Possible. 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
Swainson's Hawk ⁴ (<i>Buteo swainsoni</i>)	T	NE	Possible. 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	Possible. 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.
FISH			
Central Valley steelhead (<i>Oncorhynchus mykiss</i>)	T, X	NE	Absent: No natural waterways within the species' range would be affected by the proposed action.
Chinook salmon - Central Valley spring-run (<i>Oncorhynchus tshawytscha</i>)	T, X	NE	Absent: No natural waterways within the species' range would be affected by the proposed action.
Chinook salmon -Sacramento River winter-run (<i>Oncorhynchus tshawytscha</i>)	E, X	NE	Absent: No natural waterways within the species' range would be affected by the proposed action.
Delta smelt (<i>Hypomesus transpacificus</i>)	T	NE	Absent: No natural waterways within the species' range would be affected by the proposed action.

Species	Status ¹	Effects ²	Summary Basis for ESA Determination ³
North Amer.green sturgeon (<i>Acipenser medirostris</i>)	T	NE	Absent: No natural waterways within the species' range would be affected by the proposed action.
INVERTEBRATES			
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	E	NE	Possible. Found or believed to occur in Colusa, Glenn, and Yolo counties. 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	Possible. 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	Absent. Use of lands north and south of the Action Area. 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	NE	Possible. Found or believed to be in Colusa, Glenn, and Yolo counties. 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.
California freshwater shrimp (<i>Syncaris pacifica</i>)	E	NE	Absent: Only present in freshwater streams in Napa, Sonoma and Marin counties. 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
PLANTS			
Hoover's spurge (<i>Chamaesyce hooveri</i>)	T	NE	Possible. Found or believed to be in Colusa and Glenn counties. 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.

Species	Status ¹	Effects ²	Summary Basis for ESA Determination ³
palmate-bracted bird's-beak (<i>Chloropyron palmatum</i>)	E	NE	Possible. Found or believed to be in Colusa and Glenn counties. 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.
Colusa grass (<i>Neostapfia colusana</i>)	T	NE	Possible. Found or believed to be in Yolo County. Occurs in vernal pools along the eastern side of the central Sierra Nevada foothills.
hairy Orcutt grass (<i>Orcuttia pilosa</i>)	E	NE	Possible. Found or believed to be in Glenn and Colusa Counties. Occurs in vernal pools along the eastern side of the central Sierra Nevada foothills.
Keck's checker-mallow (checkerbloom) (<i>Sidalcea keckii</i>)	E	NE	Possible. Found or believed to be in Colusa and Yolo counties. 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.
Greene's tuctoria (<i>Tuctoria greenei</i>)	E	NE	Possible. 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.
REPTILES			
Giant garter snake (<i>Thamnophis gigas</i>)	T	NE	Present. Found or believed to occur in Colusa, Glenn, and Yolo counties. No land use changes would occur. Habitat would remain the same and no new facilities would be constructed.
<p>1 Status= Listing of Federally special status species, unless otherwise indicated. C: Candidate species E: Listed as Endangered. T: Listed as Threatened. X: Critical habitat designated</p> <p>2 Effects = NE = No Effect determination.</p> <p>3 Definition of Occurrence Indicators in Proposed Action Area. Present: Species observed and suitable habitat present. Possible: Species reported in area but suitable habitat suboptimal or entirely lacking. Unlikely: Species recorded in vicinity over 10-years ago but habitat suboptimal or entirely lacking. Absent: No species records and habitat requirements not met.</p> <p>4 State-listed species from California Natural Diversity Database 2013.</p>			

3.2.2 Environmental Consequences

No Action

The No Action Alternative consists of the continuation of deliveries of CVP water supply in accordance with the terms and conditions of the applicable WD's CVP water service contracts. WDs would continue to look for other water supplies to augment their supply or use groundwater pumping for local use where feasible. The No Action Alternative would neither hinder nor enhance populations of special status species or their habitat.

Proposed Action

There would be no impacts to biological resources as a result of the proposed project. The Proposed Action would not involve the conversion of any land fallowed and untilled for 3 or more years. There would be no change in land use patterns of cultivated or fallowed fields that do have some value to listed species or to birds protected by the Migratory Bird Treaty Act (MBTA). Groundwater that would be moved into the Canals would use existing facilities and would be limited by its quality (as identified in Appendix A). Maintaining high water quality as a condition of conveyance assures there would be no direct or indirect impacts to listed species or their critical habitat. Additionally, since water conveyed as part this action does not flow into any natural waterways within the range of protected fish species, there would be no potential effect to listed fish species.

Cumulative Impacts

As the Proposed Action is not expected to result in any direct or indirect impacts to biological resources, there would be no cumulative impacts.

3.3 Socioeconomic Resources

3.3.1 Affected Environment

The agricultural industry significantly contributes to the overall economic stability of the Sacramento Valley. Water supply, including CVP allocations and groundwater resources, allow farmers to plan for the types of crops to grow and to secure loans to purchase supplies. The economic variances may include fluctuating agricultural prices, insect infestation, changing hydrologic conditions, increased fuel and power costs.

3.3.2 Environmental Consequences

No Action

Reclamation would not issue WACs to requesting contractors within the SCU of the CVP. The No Action Alternative consists of the continuation of deliveries of CVP water supply in accordance with the terms and conditions of the applicable WD's CVP water service contracts. Reclamation has previously approved a WAC for CCWD that would allow up to 4,500 af to be pumped into the TCC through water contract year 2014. With exception to this already approved quantity for transport by CCWD, each WD could still pump groundwater for local use, but they would not be authorized to pump groundwater into the Canals for conveyance to other areas within WD boundaries. In order to meet

the potential irrigation need to these other areas, a WD may be required to purchase more costly water resulting in an adverse impact to a WD's socioeconomic resources.

Proposed Action

Under the Proposed Action, participating WDs could convey Non-Project Water in CVP facilities to other portions of their district to supplement their CVP water supply. The WACs would allow the Non-Project Water of suitable water quality to be distributed to sustain permanent crops that may otherwise not receive adequate supply in the No Action Alternative. The Proposed Action would maintain agribusiness that supports local and regional economies.

Cumulative Impacts

There would be no adverse cumulative impacts to socioeconomic resources as a result of the Proposed Action. The Proposed Action would help maintain beneficial effects to the economy during the program timeframe.

3.4 Resources Not Analyzed in Detail

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

Cultural Resources

Cultural Resources is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

There would be no impacts to cultural resources as a result of implementing the Proposed Action or No Action Alternatives. The Proposed Action would facilitate the flow of groundwater through existing facilities to existing users. No new construction or ground disturbing activities would occur as part of the Proposed Action. The pumping, conveyance, and storage of water would be confined to existing wells, pumps, and CVP facilities. Reclamation has determined that these activities have no potential to cause effects to historic properties pursuant to 36 CFR Part 800.3(a)(1).

Indian Sacred Sites

Sacred sites are defined in Executive Order 13007 (May 24, 1996) as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately

authoritative representative of an Indian religion has informed the agency of the existence of such a site." Executive Order 13007 requires Federal land managing agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites.

No impact to Indian sacred sites would occur under the No Action Alternative as conditions would remain the same as existing conditions. The Proposed Action would not limit access to and ceremonial uses of Indian sacred sites on Federal lands by Indian religious practitioners, or adversely affect the physical integrity of such sacred sites. There would be no impacts to Indian sacred sites as a result of the Proposed Action.

Indian Trust Assets

Indian trust assets (ITA) are legal interests in assets that are held in trust by the United States Government for federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the Interior is the trustee for the United States on behalf of federally recognized Indian tribes. "Assets" are anything owned that holds monetary value. "Legal interests" means there is a property interest for which there is a legal remedy, such as a compensation or injunction, if there is improper interference. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something. Indian Trust Assets (ITA) cannot be sold, leased or otherwise alienated without the United States' approval. Trust assets may include lands, minerals, and natural resources, as well as hunting, fishing, and water rights. Indian reservations, Rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITA may be located off trust land.

No impact to ITA would occur under the No Action Alternative as conditions would remain the same as existing conditions. Reclamation also determined that the Proposed Action does not have a potential to affect ITA.

Environmental Justice

Executive Order 12898 (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

The Proposed Action would be consistent with the Department's environmental justice guidelines. Warren Act Contracts would allow the WDs to use Non-Project groundwater for irrigation that would help maintain agricultural production and farm worker employment in drier years. Therefore, implementing the Proposed Action would not cause any harm to minority or disadvantaged populations.

Air Quality

Section 176 (C) of the Clean Air Act [CAA] (42 U.S.C. 7506 (C)) requires any entity of the Federal Government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110

(a) of the Federal CAA (42 U.S.C. 7401 [a]) before the action is otherwise approved. In this context, conformity means that such Federal actions must be consistent with SIPs purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of those standards. Each Federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements would, in fact conform to the applicable SIP before the action is taken.

Reclamation has determined that Air Quality would not be significantly altered by implementing the Proposed Action. Under the Proposed Action, delivery of this water would occur in existing facilities and no new construction would be permitted. Pumps used to pump groundwater could be used in the No Action or Proposed Action Alternatives, and only the place of use would potentially differ between the alternatives. Therefore, potential emissions from the Proposed Action are not likely to be significantly different from the No Action Alternative. Furthermore, details on where, when, and how the electricity is generated and used are not known at this time.

Global Climate

Climate change refers to significant change in the measures of climate (e.g., temperature, precipitation, or wind) lasting for decades or longer. Many environmental changes can contribute to climate change such as change in the sun's intensity, changes in ocean circulation, deforestation, urbanization, burning fossil fuels etc) (EPA 2011).

Neither the Proposed Action nor the No Action Alternative would involve physical changes to the environment that could impact global climate change. Generating power plants that produce electricity to operate the electric pumps, representing the only likely contributor to greenhouse gas (GHG) emissions, produce carbon dioxide that could potentially contribute to GHG emissions; however, the groundwater that could be pumped could be the same under either alternative and only the place of use is subject to change.

Section 4 Consultation and Coordination

4.1 Public Review Period

Reclamation intends to sign a Finding of No Significant Impact (FONSI) for this project, and will make the EA available for a 30-day period that begins on the day of formal public noticing on Reclamation's website. All comments will be addressed in a Final EA/FONSI. Additional analysis will be prepared if substantive comments identify impacts that were not previously analyzed or considered.

4.2 Endangered Species Act (16 USC § 1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies to ensure that discretionary Federal actions do not jeopardize the continued existence of special status species or result in the destruction or adverse modification of the critical habitat of these species.

Because there are no ground-disturbing activities that could impact critical habitat or impacts to water resources that could impact special status species, there would be no effect to ESA-listed species. As a consequence, Reclamation has determined consultation is not necessary.

4.3 Migratory Bird Treaty Act (MBTA) (16 U.S.C. § 703 et seq.)

The MBTA implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, nest or egg would be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

Because there are no ground-disturbing activities that could impact habitat or impacts to water resources that could impact migratory birds, there would be no effect to migratory birds.

Section 5 References

EPA, 2011. Climate Change, Basic Information, Website:
<http://www.epa.gov/climatechange/basicinfo.html>

Reclamation, 2005. Approved Water Contract for Conveyance of Non-Project Water Between the United States and Colusa County Water District, United States Department of the Interior, Bureau of Reclamation, Mid-Pacific Region, Northern California Area Office, Shasta Lake, California.

Reclamation, 2012. Finding of No Significant Impact – Temporary Warren Act Contracts for Conveyance of Non-Central Valley Project Water in the Tehama-Colusa and Corning Canals in 2012. FONSI No. NC-12-01, April 2012.

