

Draft CVPIA Fiscal Year 2015 Annual Work Plan, Refuge Water Supply Program—Water Acquisition Component, CVPIA Section 3406 (d)(2)

Responsible Entities:

Staff Name	Agency	Role
Tim Rust	Reclamation	Lead
Dale Garrison	USFWS	Co-Lead
Jeffery Shu	CDFW	State Partner

Overview of the Refuge Water Supply Program:

Reclamation and the U. S. Fish and Wildlife Service (USFWS) jointly implement the Refuge Water Supply Program (RWSP), with the California Department of Fish and Wildlife (CDFW) acting as the lead state partner. In addition, Reclamation collaborates with the Grassland Water District (GWD) in the acquisition and delivery of water supplies to the Grassland Resource Conservation District’s (GRCD) private wetlands. Reclamation, Service, CDFW, and GWD, working collaboratively together, plan and implement RWSP activities to meet wildlife refuge water supply needs, in accordance with CVPIA. The RWSP, which consists of three major components - water acquisition, water conveyance, and facilities construction, implements Section 3406 (d) (Central Valley Refuges and Wildlife Habitat Areas) that directs and authorizes the Secretary of the Interior to:

“...provide, either directly or through contractual agreements with other appropriate parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on units of the National Wildlife Refuge System in the Central Valley of California; on the Gray Lodge, Los Banos, Volta, North Grasslands, and Mendota state wildlife management areas; and on the Grasslands Resource Conservation District in the Central Valley of California.”

The RWSP’s overarching goal, working with interested stakeholders (Central Valley Joint Venture [CVJV], Central Valley Project agriculture and M&I water service customers, and not-for-profit organizations), is to ensure that all 19 CVPIA identified wetland habitat areas, hereinafter referred to as “refuges”, annually receive water of specified quantity, of suitable flow rate and timing, and suitable quality to support their wetland and aquatic environments. These wetland

areas include 13 National Wildlife Refuges (NWR), 5 State Wildlife Areas (SWA), and 1 private wetland area (GRCD).

Full Level 4 (Full L4) is the total annual amount of water identified in CVPIA for each refuge as required for optimum wetland and wildlife habitat development and management. The Full L4 water delivery target for the 19 refuges is 555,515 acre-feet (AF) and is satisfied when both Level 2 (L2) and Incremental Level 4 (IL4) water supply targets are met.

L2 represents the amount of water historically delivered prior to 1989. Annually, Reclamation is required to provide to refuges 422,251 AF of L2 water supplies. L2 water primarily comes from annual CVP yield; however, a small amount of L2 water (approximately 48,000 AF) comes from other diverse sources such as groundwater and non-CVP surface water.

IL4 water is the difference between L2 and Full Level 4 water supplies; it equals 133,264 AF. Pursuant to CVPIA, IL4 water represents the quantity of water required for optimum refuge wetland management. IL4 water supplies may be acquired through voluntary measures such as water conservation, conjunctive use, direct purchase, exchange, lease, donation, or similar activities.

Numerous biological benefits have resulted from a reliable year-round water supply that adequately meets the delivery schedule for wetland management on CVPIA refuges. Wildlife refuges provide habitat supporting migrant waterfowl and shorebirds; resident wildlife; and the recovery of special status species such as the giant garter snake, and tricolored blackbirds. In addition, RWSP water supplies allow refuge managers to “flush” excess salts from wetlands to improve soil quality and productivity.

Water Acquisition Component Goals and Objectives for FY 2015:

To acquire 133,264 acre-feet (AF) of IL4 (also called supplemental water) for critical wetland habitat supporting resident and migratory waterfowl, threatened and endangered species, and wetland dependent aquatic biota on the refuges. RWSP-Water Acquisition Component (WAC) is subject to state cost share of 25% and a task order is being developed under the CVPIA Sharing of Costs Agreement for Mitigation Projects & Improvements. The WAC anticipates entering into contracts to purchase IL4 water in FY 2015.

Towards achieving the above stated goal, the WAC does:

1. Purchase IL4 water from willing sellers such as the San Joaquin River Exchange Contractors Water Authority – approximately 20,000AF of surface water; as well as the Grassland Water District (GWD) -- up to

10,000 AF of groundwater. In 1998 and 2005, the WAC acquired 9,300 AF of permanent IL4 surface water supplies in the Sacramento Valley.

2. Use groundwater to lower costs and increase reliability of providing supplemental refuge water supplies with acquisitions from GWD and by groundwater wells constructed at the Volta SWA. The Volta wells have increased water supply reliability and helped to diversify L2 Water. It is anticipated that these wells will produce up to 5,000 AF annually of which half will be IL4 water and half will be diversified L2 water.
3. Diversify its water sources. For example, the WAC pursues groundwater projects in partnership with local water districts because groundwater does not require external conveyance if the source can be located at or near a refuge. The lower cost of groundwater is also an advantage, although downsides include groundwater of poorer quality in some locations, particularly in the San Joaquin Valley; the threat of aquifer depletion and land subsidence. Groundwater is monitored for toxins, pollutants and salinity so as not to degrade the general quality of water on the refuges. Several refuges rely at least in part on groundwater supplies, including Volta and Gray Lodge SWAs, Merced and Pixley NWRs, and the GRCD.
4. Evaluate water exchange opportunities. Water exchanges typically involve “swapping” the RWSP’s L2 water supply for a willing “sellers” water supply (surface water, groundwater, previously banked surface water, etc.) on a 1 AF for 1AF basis. However, for such water exchanges to be beneficial to refuges, some amount of additional “supplemental water” is typically required to help the RWSP fulfill its IL4 requirement under CVPIA. For example, exchanges may be 1AF of L2 water for 2AF of the willing seller’s supply. Presently, the WAC is considering two water exchange opportunities.

Status of RWSP-WAC:

Since 1994, the WAC acquires an average of 60,000 AF of IL4 water each fiscal year (excluding permanent water). Decisions about the use of IL4 water are made in collaboration with the USFWS, CDFW, GWD, and CVJV refuge managing partners.

Draft CVPIA Fiscal Year 2015 Annual Work Plan, Refuge Water Supply Program—Water Conveyance (Wheeling) Component, CVPIA Section 3406(d)(1), (2) and (5)

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Tim Rust	USFWS	Lead
Dale Garrison	Reclamation	Co-Lead
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Water Conveyance Component Goals and Objectives for FY 2015:

The RWSP Water Conveyance (Wheeling) Component (RWCC) endeavors to meet the mandate of Section 3406(d)(1), (2), and (5) of the CVPIA, to provide long-term, firm and reliable water supplies to the refuges.

The RWSP-WCC’s two primary performance goals are, specifically, starting with Water Year 2002 forward:

- Annually provide/deliver L2 water supplies by specified amounts to the refuges totaling 422,251 acre-feet;
- Annually deliver IL4 acquired water supplies by specified amounts to the refuges totaling 133,264 acre-feet.

The RWSP-WCC anticipates delivering the L2 and acquired IL4 quantities to the extent that the FY 2015 budget allows. All costs associated with the acquisition and delivery of IL4 water supplies are subject to a 25% State cost share under CVPIA.

Status of the RWCC:

The RWSP-WCC has delivered the full amounts of L2 water supplies to CVPIA refuges as scheduled by refuge managers, meeting their timing needs, since 1993, to the extent allowed by availability of external conveyance capacity, with the following exceptions:

- The Kern NWF did not receive any scheduled water during August 2012, and those quantities of water delivered in September 2012 did not meet the refuge's schedule. A delay in execution of a new conveyance agreement between Reclamation and the California Department of Water Resources (DWR) resulted in a lapse of conveyance of Kern NWR water supplies.
- East Bear Creek Unit (EBC Unit) has not received full L 2 water supplies nor have water deliveries met the refuge's scheduled needs since construction of the East Bear Pumping Plant (EBPP) was considered substantially complete and operational at the end of 2010. From 2011 to present, deliveries to EBC Unit have been sporadic due to unexpected EBPP operational problems and challenges in obtaining sufficient water supplies from local water districts that can be delivered through available water conveyance systems specific to the unique location of the EBC Unit.

The RWSP-WCC has delivered all IL4 water as acquired and scheduled on an annual basis since 1994.

The RWSP-WCC continues to assure that full L2 water supplies are delivered to all CVPIA refuges with sufficient external conveyance capacity based on individual refuge delivery schedules. For those refuges still without sufficient external conveyance capacity (currently , four refuges – Gray Lodge and Mendota SWAs, Sutter and Pixley NWRs -- do not have sufficient external conveyance capacity), the RWSP-WCC strives to deliver as much L2 water as possible, when feasible.

Draft CVPIA Fiscal Year 2015 Annual Work Plan

April 29, 2014

Program Title:

Refuge Water Supply Program – Facilities Construction Component CVPIA Section 3406 (d) (5)

Responsible Entities:

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Tim Rust	Reclamation	Lead
Dale Garrison	Service	Co-Lead
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RWSP-Facilities Construction Component’s Goals and Objectives for FY 2015

The Facilities Construction Component’s (FCC) goal is to meet the mandate of Section 3406(d)(5) of the CVPIA, providing the necessary infrastructure with sufficient conveyance capacity to support long-term delivery of firm, reliable water supplies to the boundary of the 19 CVPIA refuges identified in the Report on Refuge Water Supply Investigations (3/1989) and the San Joaquin Basin Action Plan/Kesterson Mitigation Plan (12/1989). The need to upgrade conveyance facilities is a result of capacity constraints in existing delivery systems and/or the lack of existing systems.

To meet the need stated above, the FCC’s primary objective is to have the necessary facilities in place for the delivery of full Level 4 water supplies to all CVPIA refuges, meeting their timing and scheduling requirements. A full Level 4 water supply will provide for optimum habitat management, supporting a broad range of species including targeted threatened and endangered species.

Water conveyance facility improvement project designs for the Biggs-West Gridley Water District (BWGWD), which conveys refuge water to the Gray Lodge SWA, are complete and construction activities at BWGWD began in

January 2014. Phase 1B was completed in May 2014. Construction of Phases 1A and 1C are expected to begin in October 2014.

A feasibility study began in November 2013 to assess both interim and long-term comprehensive solutions for a permanent reliable water supply conveyance system for the Sutter NWR. The study is expected to be completed in late 2014. Going forward, design, permitting, and environmental compliance for the interim solution identified in the feasibility study will commence in 2015. This work is expected to take approximately 18 months. Construction of the interim solution is expected to begin in FY 2017.

East Bear Creek Pumping Plant (EBCPP) service contract (funded and extended in FY 2014) will continue to provide needed repairs and troubleshooting for component issues. This contract will help minimize the number of EBCPP shutdown occurrences and the length of time of each shutdown, therefore reducing disruptions of water deliveries to wetlands of the East Bear Creek Unit.

Status of RWSP-Facilities Construction Component

Seventeen of the 19 CVPIA refuges initially required conveyance facilities upgrades to provide sufficient conveyance capacity for the delivery of full Level 4 supplies. The 17 refuge projects were further segregated into 46 major actions/structures. The list of 46 major actions/structures was revised in 2012, and reduced to 44 major actions subsequent to determination that two actions were not requisite to the increase of conveyance capacity.

To date, 13 of these 17 refuge projects have been completed, resulting in completion of 32 major actions/structures of the total 44 major actions/structures.

There are four remaining projects, with 12 related major actions/structures. These projects are to benefit the following refuges:

- Gray Lodge SWA, Sacramento Valley
- Sutter NWR, Sacramento Valley
- Pixley NWR, San Joaquin Valley
- Mendota SWA, San Joaquin Valley