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Refuge Water Supply Program



The California Department of Fish and Wildlife (CDFW) Refuge Water Supply Program (RWSP) coordinates closely with the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, Grassland Resource Conservation District, and the Central Valley Joint Venture to provide and manage water supplies for wetland habitat on 19 specific federal, state, and private managed wetlands in the Central Valley as identified in [Section 3406\(d\) of the Central Valley Project Improvement Act \(CVPIA\) \(http://www.usbr.gov/mp/cvpia/3406d/3406d.html#3406d\)](#).

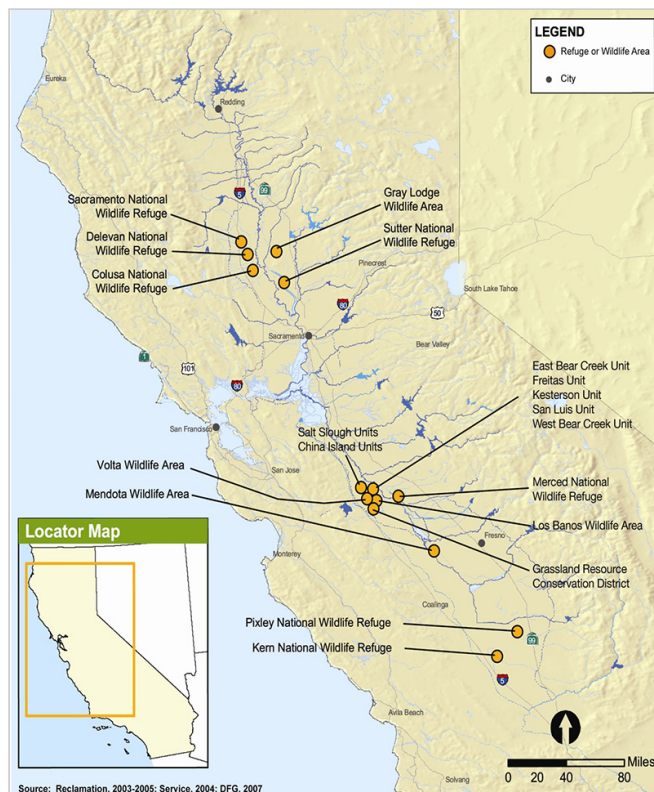
The goal of the RWSP is to implement CVPIA's mandate to provide "firm water supplies of a suitable quality and quantity to maintain and improve wetland habitat." Water delivery to state managed wetlands includes Gray Lodge WA, North Grasslands WA (China Island and Salt Slough Units), Volta WA, Los Banos WA, and Mendota WA, and is provided by Reclamation through two long-term contracts with CDFW. CVPIA also requires upgrading or building conveyance facilities necessary to deliver required amounts of water to each of the 19 managed wetlands. CVPIA refuge water supply is mitigation for both [Central Valley Project \(CVP\) \(http://www.usbr.gov/mp/cvp/index.html\)](#) operations and the closure and cleanup of Kesterson Reservoir. See [Program Overview \(/Conservation/Watersheds/Refuge-Water/Overview\)](#) for more information.

CVPIA refuge water supplies consist of the following:

- **Level 2** amounts are 422,251 acre-feet per year
 - Represents the historical average amount of water deliveries prior to CVPIA enactment in 1992
 - Costs are reimbursable by CVP contractors
- **Incremental Level 4** amounts are 133,264 acre-feet per year
 - Represents the additional increment of water required for optimal wetland habitat development
 - Must be acquired through voluntary measures which do not require involuntary reallocation of CVP yield
 - Costs are 75% Federal (primarily from the CVPIA Restoration Fund) and 25% by State of California through reimbursements or in-kind contributions

The combined 555,515 acre feet is considered the "full Level 4" water supply needed for optimal habitat development on the 19 managed wetland areas identified in the [Report on Refuge Water Supply Investigations \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=132988&inline\)](#) and the [San Joaquin Basin Action Plan/Kesterson Mitigation Plan \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133541&inline\)](#).

CVPIA Refuge Area Locations



(/portals/0/Images/Conservation/Watersheds/DCF/CVPIA_refuges

CVPIA Refuge Water Conveyance (<http://arcg.is/1KnY52K>)

An interactive map for viewing RWSP refuge areas and conveyance features.

For more information, contact Jeffrey Shu at Jeffrey.Shu@Wildlife.ca.gov (<mailto:Jeffrey.Shu@wildlife.ca.gov>) or (916) 445-8572.

CDFW Water Branch (<https://www.wildlife.ca.gov/Explore/Organization/WB>)

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(916) 445-8576

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State CVPIA Wildlife Areas

Gray Lodge WA

(<https://www.wildlife.ca.gov/Lands/Places-to-Visit/Gray-Lodge-WA>)

North Grasslands WA

(<https://www.wildlife.ca.gov/Lands/Places-to-Visit/North-Grasslands-WA>)

Los Banos WA

(<https://www.wildlife.ca.gov/Lands/Places-to-Visit/Los-Banos-WA>)

Volta WA (<https://www.wildlife.ca.gov/Lands/Places-to-Visit/Volta-WA>)

[Mendota WA](#)

(<https://www.wildlife.ca.gov/Lands/Places-to-Visit/Mendota-WA>)

RWSP Documents

- [Report on Refuge Water Supply Investigations \(PDF\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=132988&inline) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=132988&inline>)
- [San Joaquin Basin Action Plan/Kesterson Mitigation Plan \(PDF\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133541&inline) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133541&inline>)
- [Evaluation of Groundwater Potential for Incremental Level 4 Refuge Water Supply \(PDF\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92276&inline) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92276&inline>)

Related Information

- [Bureau of Reclamation - Refuge Water Supply](http://www.usbr.gov/mp/cvpia/3406d/index.html) (<http://www.usbr.gov/mp/cvpia/3406d/index.html>)
- [U.S. Fish and Wildlife Service - CVPIA Project Implementation Division](http://www.fws.gov/cno/fisheries/cvpia/RefugeWaterSupply1.cfm) (<http://www.fws.gov/cno/fisheries/cvpia/RefugeWaterSupply1.cfm>)
- [Grassland Resource Conservation District](http://qwdwater.org) (<http://qwdwater.org>)
- [Central Valley Joint Venture](http://www.centralvalleyjointventure.org/habitat/water) (<http://www.centralvalleyjointventure.org/habitat/water>)

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