WSIP UPDATE: JUNE 2020

Water Storage Investment Program

PROGRESS CONTINUES IN THE WATER STORAGE INVESTMENT PROGRAM

Proposition 1: The Water Quality, Supply and Infrastructure Improvement Act, dedicated $2.7 billion for investments in the public benefits of water storage projects. In 2018, the California Water Commission approved maximum conditional funding amounts for eight proposed projects in the Water Storage Investment Program (WSIP). Each project will provide benefits to the state's ecosystem.

PROP 1 STATUTORY REQUIREMENTS

The applicants must now complete the Proposition 1 statutory requirements and obtain:

To qualify for funding, projects were required to provide **public benefits** in the form of ecosystem improvements, water quality improvements, recreational benefits, flood control benefits, or emergency response. While the public benefits vary from project to project, each is required to provide an ecosystem benefit.

Proposition 1 defines **Public Benefits** as:

Applicants must now enter into contracts with the state agencies responsible for the administration of the public benefits produced by the project.

California WATER COMMISSION

PROJECT	ECOSYSTEM BENEFIT*
Chino Basin Conjunctive Use Environmental Water Storage/Exchange Program	**Increased Emigration of Juvenile Chinook** — Releases from Lake Oroville of up to 50,000 acre-feet to serve as pulse flows to aid Chinook smolt emigration during drier conditions.
Kern Fan Groundwater Storage Project	**Incidental Wetland Habitat** — 1,280 acres of temporary wetland habitat for approximately 1.5 months during the winter of wet, above normal, and below normal years when groundwater recharge activity occurs. **Spring- and Winter-Run Chinook Salmon Survival** — Seven releases from Lake Oroville of 18,000 acre-feet each to serve as pulse flows to aid spring- and winter-run Chinook salmon emigration during drier conditions.
Los Vaqueros Reservoir Expansion Project	**Reduced Salmonid Entrainment** — Physical improvements at the Rock Slough Fish Screen Facility and expansion of an aquatic weed management program in Rock Slough. **Refuge Water Supply** — Annual average delivery of 46,000 acre-feet/year of Incremental Level 4 water to south-of-Delta refuges.
Pacheco Reservoir Expansion Project	**Steelhead Habitat** — Year-round reservoir releases to Pacheco Creek, targeting average monthly flows of 10-20 cubic-feet/second. **Refuge Water Supply** — Delivery of 2,000 acre-feet/year of Incremental Level 4 water to south-of-Delta refuges in below normal water years.
Sites Project	**Refuge Water Supply** — Delivery of a long-term average of 35,000 acre-feet/year of additional Level 4 water to the Sacramento National Wildlife Refuge Complex and an average increase in Level 4 deliveries to Mendota Pool of 28,000 acre-feet/year and to Tulare Basin of 6,000 acre-feet/year. **Yolo Bypass Flows** — Long-term average flow of 40,000 acre-feet/year into the Yolo Bypass from August through October to benefit Delta smelt.
South Sacramento County Agriculture & Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program	**Increased Flows for Fall-Run Chinook Salmon** — Additional base flow volume of 15,511 average acre-feet/year in the Cosumnes River to increase the migration window by 13 days for fall-run salmon. **Wetland Habitat Enhancement** — Wetland function increase of 50% on 1,070 acres; 25% on 1,291 acres; 10% on 1,811 acres, and 5% on 361 acres within the project area. Functional improvements would be due to elevated groundwater levels and surface water delivery. **Riparian Habitat Enhancement** — Improvement of 500 acres of riparian habitat. Improvements would be due to active restoration and elevated groundwater levels. **Greater Sandhill Crane Habitat Improvements** — Management of 3,500 acres of agricultural lands to support an additional 700 cranes during the winter when fields are flooded. **Vernal Pool Habitat Improvements** — Restoration and active management of 500 acres of vernal pool habitat.
Temperance Flat Reservoir Project	**Refuge Water Supply** — Delivery of up to 10,000 acre-feet/year of Incremental Level 4 water supplies to wildlife refuges during dry years and up to 15,000 acre-feet/year during critical-high and critical-low years.
Willow Springs Water Bank Conjunctive Use Project	**Increased Emigration of Juvenile Chinook Salmon** — Releases from Lake Oroville of up to 40,000 acre-feet/year to serve as pulse flows to aid emigration of Chinook smolts in drier conditions.

** Based on state agency review of applications.*

CONTACT THE COMMISSION

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California WATER COMMISSION

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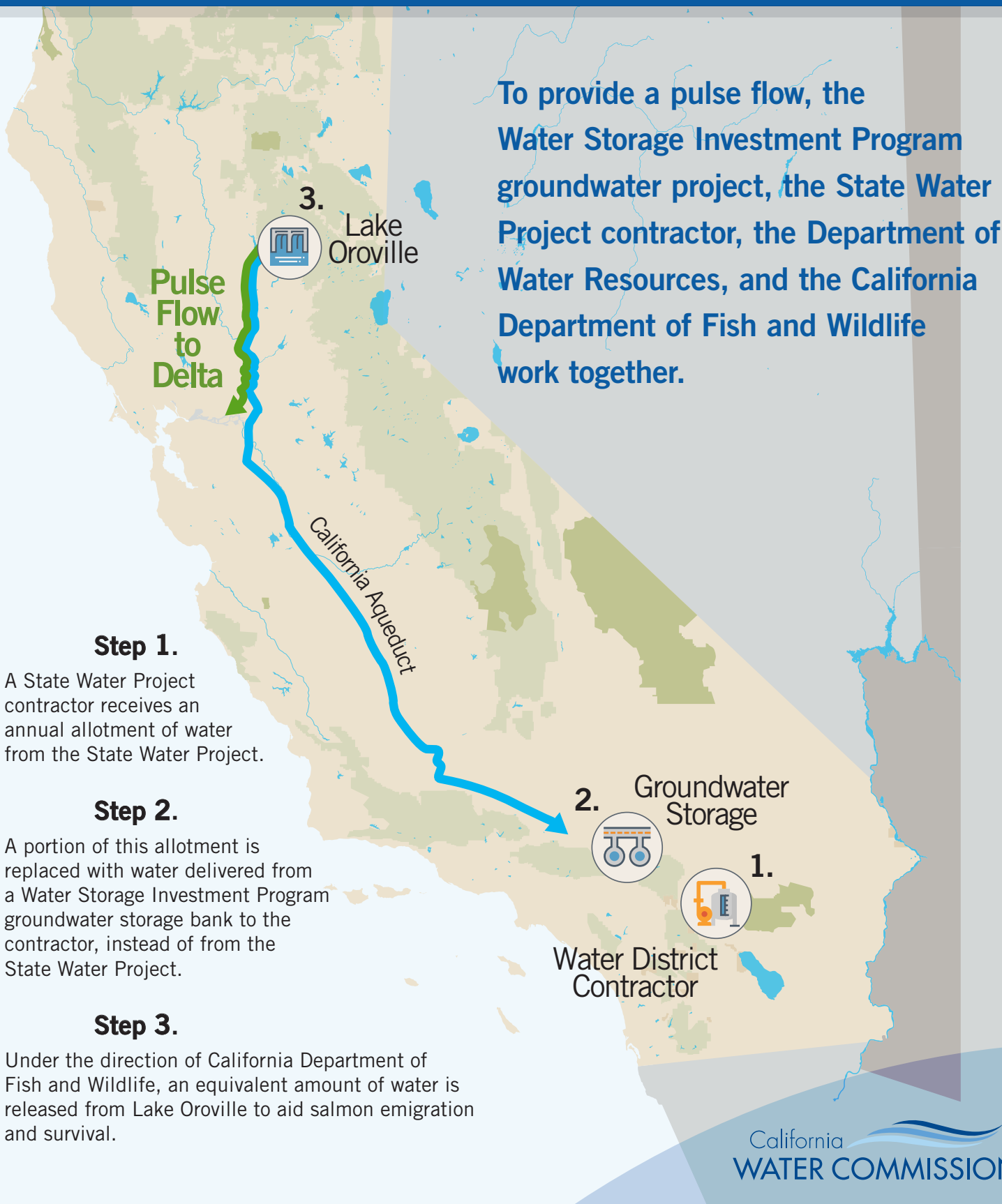
How a pulse flow works



To provide a pulse flow, the Water Storage Investment Program groundwater project, the State Water Project contractor, the Department of Water Resources, and the California Department of Fish and Wildlife work together.

Step 1.

A State Water Project contractor receives an annual allotment of water from the State Water Project.

Step 2.

A portion of this allotment is replaced with water delivered from a Water Storage Investment Program groundwater storage bank to the contractor, instead of from the State Water Project.

Step 3.

Under the direction of California Department of Fish and Wildlife, an equivalent amount of water is released from Lake Oroville to aid salmon emigration and survival.

California WATER COMMISSION

PULSE FLOWS PROVIDE A PUBLIC BENEFIT

To qualify for funding, Water Storage Investment Program (WSIP) projects are required to provide a public benefit to the state's ecosystem. There are three groundwater storage projects in the WSIP.

To produce an ecosystem benefit, these three projects will provide "pulse flows" to help juvenile salmon exit the river/Delta system. A pulse flow is a surge of water released from the Lake Oroville at a specific time to aid emigration and survival of juvenile Chinook salmon.

To implement a pulse flow requires the cooperation of four parties: a WSIP groundwater bank, a State Water Project (SWP) contractor, the Department of Water Resources (DWR) as the SWP operator, and the California Department of Fish and Wildlife (CDFW) as the state agency responsible for administration of the benefit. These four entities need multiple agreements in order to make a pulse flow operational.

A **groundwater bank** utilizes available storage space within a groundwater basin to recharge and store water underground for extraction and delivery to a customer a later date.

A **State Water Project contractor** has access to a specified amount of water from the SWP for delivery to its customers.

The WSIP groundwater bank operator agrees to provide the SWP contractor an amount of groundwater to replace what the contractor would normally receive from the SWP. In exchange for the groundwater, the contractor leaves that same portion of water in the SWP, stored in Lake Oroville.

Then, during a time specified by **CDFW**, the stored water is released as a pulse flow by **DWR** from Lake Oroville.

- Chino Basin Conjunctive Use Project would dedicate blocks of water of up to 50,000 acre-feet per pulse flow during drier conditions.*
- Kern Fan Groundwater Storage Project would provide seven pulse flows of 18,000 acre-feet during drier conditions.*
- Willow Springs Water Bank Conjunctive Use Project would provide up to 40,000 acre-feet per pulse flow during drier conditions.*

* *Based on state agency review of applications.*