

CDFW WSIP Ecosystem Benefits



Informational Meeting
Contracts for Administering Public Benefits
May 30, 2019
Sacramento, California



Introduction

- What is CDFW's role in developing contracts for the administration of public benefits?
- What is CDFW's process for developing contracts?
- Why is CDFW interested in stakeholder feedback?



CDFW's Process

Phase 1:

- Information Gathering

Phase 2:

- Contract Development with project applicants per WSIP regulations Section 6014 (a)(2)(A):
 - Public Benefit Description
 - Adaptive Management Plan
 - Reporting Requirements
 - Assurances on project operations and maintenance

Phase 3:

- Contract Ratification



Ecosystem Benefits

CDFW has made findings on ecosystem benefits that can be organized into nine categories:

- ✓ Chinook Salmon passage flows
- ✓ Feather River pulse flows
- ✓ Reduced salmon entrainment
- ✓ Refuge water supply
- ✓ Sandhill Crane habitat
- ✓ Steelhead Trout habitat
- ✓ Vernal pool habitat
- ✓ Wetland and riparian habitat
- ✓ Yolo Bypass pulse flows



Steelhead Trout

Ecosystem Benefit: Chinook Salmon Passage

Benefit Description: Increased flow in the Cosumnes River during adult fall-run Chinook Salmon migration.

Benefit Rationale: Increased streamflow will improve migrating conditions and access to Chinook Salmon spawning habitat.

Benefit Implementation: Raised groundwater levels will lead to increased baseflow in the Cosumnes River due to surface water/groundwater interactions.



Project(s):
South County Ag Program



Ecosystem Benefits: Pulse Flows

Benefit Description: Pulse flows between 18 taf and 50 taf out of Oroville Reservoir into the Feather River.

Benefit Rationale: A pulse of water through the Feather River will benefit juvenile Chinook Salmon emigration.

Benefit Implementation: CDFW identifies a need for a pulse. A water transfer occurs between State Water Contractors and the project applicant.



Project(s):

Chino Basin Conjunctive Use Project

Kern Fan Groundwater Storage Project

Willow Springs Water Bank Conjunctive Use Project



Ecosystem Benefit: Reduced Salmonid Entrainment



Benefit Description: Physical improvements to Rock Slough Fish Screen Facilities and expansion of invasive aquatic weed management.

Benefit Rationale: Improvements should increase efficient screen performance and maintain appropriate approach velocity to increase salmonid survival.

Benefit Implementation: Improvements to hydraulic rake system and other components.



Project(s):
Los Vaqueros Reservoir Expansion Project



Ecosystem Benefits: Refuge Water Supply

Benefit Description: Provide between 2 taf and 46 taf of water to State, Federal, and privately managed refuges.

Benefit Rationale: Increased water supply helps improve wetland habitat including avian food production, wintering and brood habitats.

Benefit Implementation: Water releases from reservoirs would be conveyed to refuge boundaries to improve wetland habitat.



Gray Lodge Wildlife Refuge Area



Project(s):

Los Vaqueros Reservoir Expansion Project

Pacheco Reservoir Expansion Project

Sites Project

Temperance Flat Reservoir



Ecosystem Benefit: Sandhill Crane Habitat

Benefit Description: 3,500 acres of agricultural fields managed for Greater Sandhill Crane habitat.

Benefit Rationale: Creation of Greater Sandhill Crane wintering habitat in close proximity to existing habitat will allow for greater dispersal and use by the species.

Benefit Implementation: Active management of agricultural fields for wintering Greater Sandhill Crane use.



Project(s):
South County Ag Program



Ecosystem Benefit: Steelhead Habitat

Benefit Description: Year-round reservoir releases to Pacheco Creek targeting average monthly flows of 10-20 cfs.

Benefit Rationale: Reservoir releases should provide improved flow and instream habitat conditions for all life stages of Steelhead Trout.

Benefit Implementation: Reservoir releases from the new replacement Dam to Pacheco Creek.



Juvenile Steelhead

08/19/2019 12



Project(s):
Pacheco Reservoir Expansion Project



Ecosystem Benefit: Vernal Pool Habitat



Benefit Description: Restoration and re-establishment of 500 acres of vernal pool habitat.

Benefit Rationale: Vernal pools are unique habitats for many native species.

Benefit Implementation: Strategic land management will allow for vernal pool restoration and establishment.



Project(s):
South County Ag Program



Ecosystem Benefits: Wetland/Riparian Habitat

Benefit Description: Two areas with 1,280 and up to 4,533 acres of wetland generated or improved, respectively. 500 acres of riparian forest habitat generated or improved.

Benefit Rationale: Wetland and riparian habitats provide refuge for migratory waterfowl and other Californian native species.

Benefit Implementation: Wetland/ riparian habitat generation or enhancement through groundwater improvements with strategic water delivery in some areas.



Project(s):
Kern Fan Groundwater Storage Project
South County Ag Program



Ecosystem Benefit: Yolo Bypass Pulse Flows

Benefit Description: Approx. 40 taf of water for pulse flows in late-summer/fall to benefit Delta Smelt.

Benefit Rationale: Yolo Bypass pulse flows have been shown to help promote food production and export in areas where Delta Smelt are known to occur.

Benefit Implementation: Water would be released from the Colusa Basin Drain through the Yolo Bypass Toe Drain.



Project(s):
Sites Project



Information Gathering

➤ Metrics

- Physical
- Biological

➤ Adaptive Management

- Monitoring
- Management triggers

➤ Considerations

- Existing knowledge/ programs
- Constraints



CDFW Contact Information

Paige Uttley

CDFW WSIP Senior Supervisor

Email: Paige.Uttley@wildlife.ca.gov

Phone: 916-445-1747

