

Shasta River Watershed-wide Permitting Program

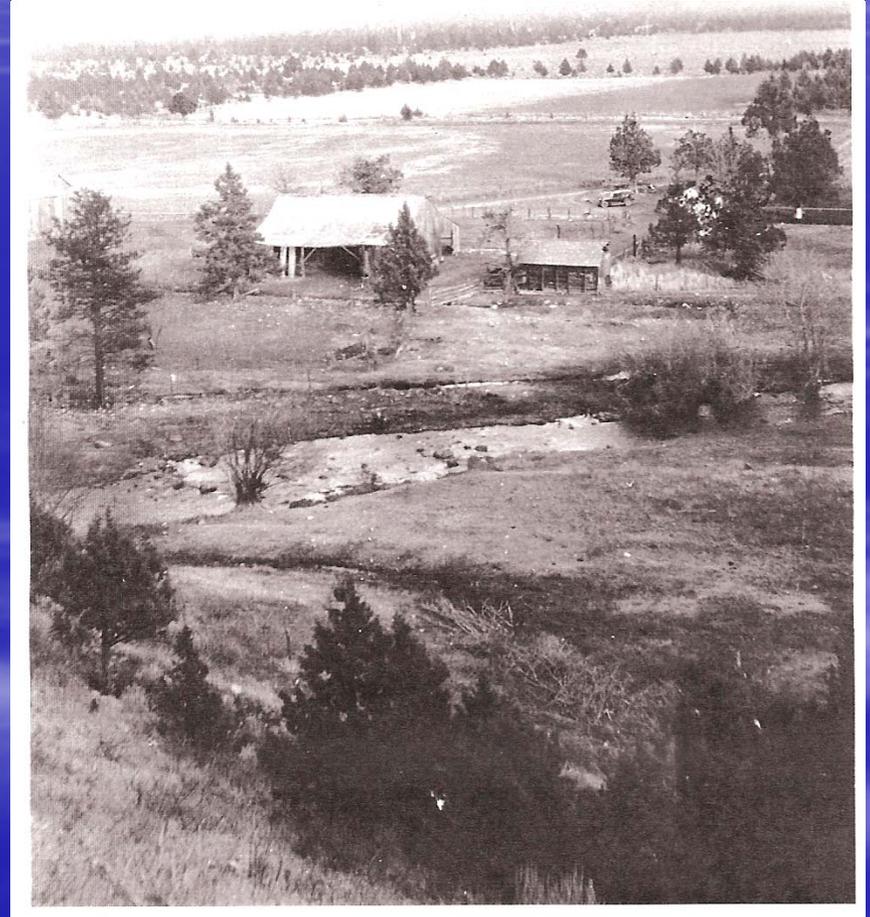


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**TMDL Workshop
May 6, 2010**

Presentation Overview

- Background
- Watershed-wide Permitting Program
- SVRCD Obligations
- Sub-permittee Obligations
- Next steps
- Emergency Measures for 2010 Coho Return



Background

- Coho salmon (*Oncorhynchus kisutch*), listed as a “threatened” species on California Endangered Species Act (CESA) in 2005



SVRCD to develop the Shasta River
m (Permitting Program)

ources and \$400k for Shasta EIR

Photo: Bill Chesney, DFG

- Purpose of Shasta-Scott Watershed-wide Permitting Program:
 - to bring agricultural diverters into compliance with Fish and Game Code Section 1600 *et seq.* (Lake or Streambed Alteration Agreement statute) (LSAA), and
 - Incidental Take Permit coverage with respect to coho salmon (*Oncorhynchus kisutch*), a “threatened” species on California Endangered Species Act (CESA) (Fish and Game Code, Section 2050 *et seq.*) for the diversion of surface water in accordance with a valid water right.
- Other Topics
 - Fish and Game Codes 5901 and 5937
 - Relinquishment of Permits

Who can participate in the Program?

- Agricultural operators that -
 - divert water from a stream by means of an active diversion for an agricultural purpose
 - are involved in an agricultural operation on property through which or adjacent to which a stream flows
 - “Active diversion” is defined as a surface water diversion that has been operated at least one out of the last five years.

ITP Program Structure

- The RCD will be program administrators and permittees for restoration work.
- Contractual agreement between participants (sub-permittees) & RCD.
- DFG will issue sub-permits to sub-permittees.
- 10-year term.



Roles and Responsibilities

- RCDs are responsible for Program Administration, Monitoring, and Annual Reporting
- RCDs are also responsible for Mitigation Measures
- Sub-permittees are responsible for Avoidance & Minimization Measures
- RCDs have no regulatory authority
- DFG works closely with RCD and landowner
 - assists with public outreach
 - conducts site visits
 - prepares sub-permits and 1600 Permits
 - ongoing collaboration with RCD and landowner
 - determines compliance with permit requirements

Covered Activities

1. Water Diversions
2. Water Diversion Structures
3. Fish Screens
4. Stream Access & Crossings
5. Fencing
6. Riparian Restoration & Revegetation
7. Instream Structures
8. Stream Gages
9. Barrier Removal & Fish Passage Projects
10. Grazing Livestock
11. Water Management
12. Permit Implementation
13. Monitoring
14. Research

SVRCD Mitigation Obligations



Flow Enhancement

- Development and Implementation of Shasta River Water Trust
- Improve Baseline Instream Flows and/or Water Quality
 - Implementing water efficiency and/or water management improvement projects on sub-permittees properties



- Develop and Implement Contingency Plan for Dry and Critically Dry Water Years
- Install Alternative Stock Water Systems



Habitat Improvement

- Spawning Gravel Enhancement
- Instream Habitat Improvement Structures
- Riparian Planting
- Barrier Removal/Fish Passage

SVRCD Monitoring

- Responsible for comprehensive monitoring program development and implementation
- SVRCD will work with Sub-permittees to assist in filling out monitoring checklists, ect.

Sub-Permittee Avoidance And Minimization Measures

Water Management

- Compliance with water rights
 - When
 - The purpose and use
 - location (s) where water may be diverted and used



Water Diversion Verification

- Verification of water diverted
 - by the watermaster in DWR Service Areas.
 - In the absence of a watermaster, verification shall be performed by some other reliable means as determined by the Department.
 - monthly basis in the form of a database or in some other form approved by the Department

Headgates and Measuring Devices

- Installation of a locking headgate or valve
- A functional measuring device or flow meter on any structure or facility used to divert water that meet DFG criteria within 3-years

Fish Screens

- The installation of fish screens on any unscreened diversion within 4-years.
 - Screens / flow velocities shall meet DFG and NMFS criteria
 - a bypass pipe or channel to allow screened fish to return safely to the stream
 - screens and bypass pipes / channels shall be in place and maintained by landowner in working order while water is being diverted



Fish Passage

- Volitional fish passage for both adult and juvenile salmonids, both upstream and downstream within 5-years of the effective date of an Agreement at all diversions
 - Includes maintaining or providing a supply of water at an appropriate depth and velocity
- Required by Fish and Game Code 5901

Livestock and Vehicle Crossings

- Cannot be used to cross a flowing stream between October 15 and July 1st until they meet Department criteria
- Must meet Department criteria by end of the Permit

Riparian Fencing

- Required on properties where operations have an impact on coho salmon
- Timing of installation will be prioritized based on impacts to coho salmon
- Minimum 35-foot setback from the edge of the streambank
- In some situations variances may be approved by the Department

Push-up Dam Replacement

- Within 5-years push-up dams will need to be replaced with boulder weirs or some other Department approved diversion method
 - Unless the Department determines that an alternative method is not feasible.

Other Temporary Diversion Structures

- Within 2-years from the effective date of an Agreement diversion structures to be assessed to determine compliance with DFG Code
 - May be used if determined compliant, provided that any specific BMP required are added to the Agreement

Bioengineering Bank Stabilization

- Sub-permittee shall stabilize eroding banks through implementation of bioengineering approaches
- Consistent with DFG's Salmonid Stream Habitat Restoration Manual



Irrigation Tailwater Reduction and/or Capture



- SVRCD shall assist sub-permittees in the design and implementation of tailwater reduction and capture systems
- SVRCD shall inventory and prioritize tailwater sources for remediation

Alternative Stockwater Systems

- RCDs required to install alternative stockwater systems as determined by priority plan
- Not required to forgo stockwater use for more than four years in a row.

Dwinnell Dam and the Montague Water Conservation District

- District shall:
 - screen installation summer discharge from Dwinnell (complete)
 - prepare feasibility study to investigate the design and implementation of fish screens on the Parks Creek and Little Shasta Diversions (in process)
 - Fish passage feasibility at Dwinnell (complete)

DWR Sub-Permit Obligations

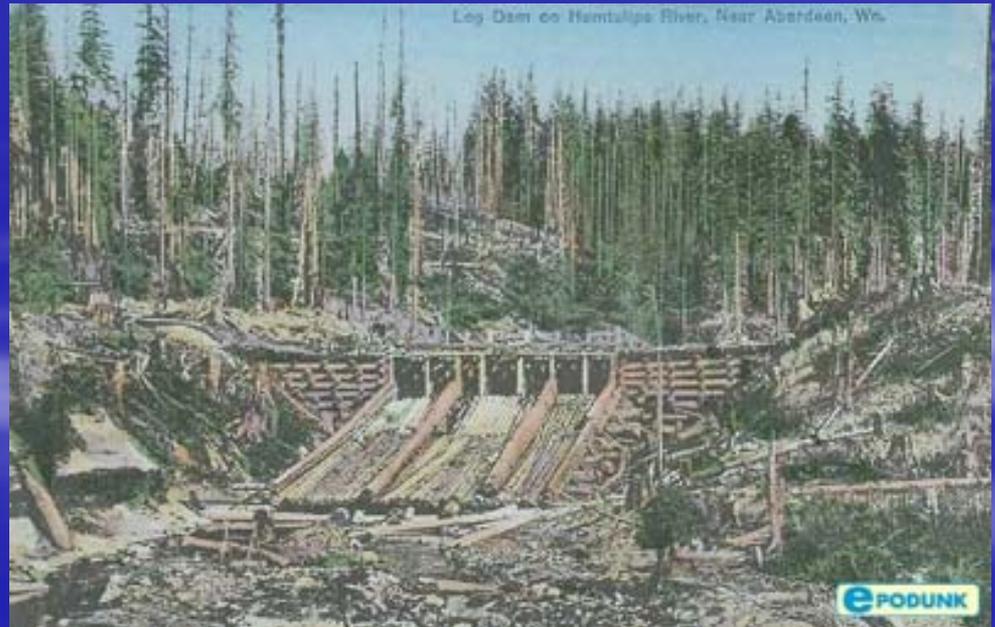
- DWR shall:
 - provide DFG water use data for all diversions with Watermaster service
 - Implement the Shasta River Decree
 - Meet with the DFG weekly during irrigation season to inform DFG of current status

Annual Monitoring

- Landowner self reporting in the form of a checklist and photographs
- RCD Monitoring
 - Diversion structure
 - Fish screen
 - Head gate
 - Measuring device
 - Crossings

Other Topics

- Fish and Game Code 5937
- Right of Entry Agreements
- Relinquishment
 - SVRCD
 - Permittee



Fish And Game Code 5937

- **§ 5937:** “The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam.....”

Determining Instream Flows

- A flow assessment study is being conducted by McBain and Trush / HSU this season, with field work starting May 2010
- Initial planning has already been completed to establish appropriate methodology
 - Interim flows (Summer 2010)
 - Validation
 - Long term flow study

Right of Entry Agreement for the Benefit of a Third Party

- Required for Program activities not on the applicants property
- Non-enforcement personnel access
 - 48 hours notice
 - Landowner or representative has right to be there
 - Good neighbor policy for permit participation
 - Access limited to covered activity locations and travel to those specific locations

Relinquishment

- Sub-permittee
 - Notice to the RCD and Department
 - May be re-instated within 60 days
 - No longer be required to follow avoidance and minimization measures
 - No 1602 or CESA coverage
- RCD
 - Notice to the Department
 - All sub-permittees permits will expire

Next Steps

- Interim flows development
- Validation
- Long term flow study
- Emergency Measures to protect returning coho in 2010
 - Measures being identified to enhance coho survival for returning cohort



Interagency and Landowner Workgroup Formed

- Two months ago a workgroup was formed to address necessary emergency actions to prepare for the 2010 run of coho (strongest cohort)
- Sub-committees formed
- Committees addressing complex issues:
 - Flows and temperatures – gauging needs
 - Fish migration barriers
 - Irrigation and tailwater returns
 - Fencing priority locations
 - Artificial rearing
- Focus is on what can be done in short term (0-24 months) to improve conditions in the Shasta River

A person wearing a brown jacket and black waders is holding a large, vibrant rainbow trout in a stream. The fish has a bright red side and a dark head. The background shows a rocky stream bed with patches of snow.

Questions?

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