

**Scott River
Fall Flows Action Plan
Accomplishments
~ 1995 to 2003 ~**

**Scott River Watershed CRMP/ Council
& Siskiyou RCD**

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SISKIYOU RESOURCE CONSERVATION DISTRICT

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PREFACE

This Fall Flows Action Plan for the Scott River was adopted by the Watershed CRMP committee in 1995, updated in 1999, and continued by the Watershed Council in 2000. Impetus for focusing on fall flows for fall chinook began in 1992, when chinook populations in the Klamath River system were very low and the species was being considered for listing as threatened or endangered. In 2003, the Council is revising its focus to year-round flow issues for all species of salmon and steelhead through its new Flows Action Plan, building on the accomplishments and needs of its previous Plan as identified herein.

Current and past members of the CRMP & Council Water Committee are to be thanked for their long hours volunteering to develop this strategy. Implementation has occurred primarily through the administration of the Siskiyou Resource Conservation District (RCD) but also by agency and landowner partners of the CRMP/Council. Appreciation is also given to the public and private funders of the projects and studies, which include:

- California Dept. of Fish & Game - Salmon Recovery & Cantara Trustee Council
 - California Dept. of Water Resources
 - Dean Witter Foundation
 - State Water Resources Control Board
 - U.C. Davis – SARP
- U.S. Fish & Wildlife Service – Klamath Fisheries Task Force

SCOTT RIVER FALL FLOWS ACTION PLAN

~ adopted 1995, updated 1999 ~

by the Scott River Watershed CRMP / Council

ACCOMPLISHMENTS - AS OF JANUARY 2003

Short-term GOAL: Work for adequate water flows in the Scott River system to protect the migration, spawning, and rearing needs of the salmon and steelhead stocks while also protecting other beneficial uses.

OBJECTIVE I from 1995 & 1999 Plans	ACCOMPLISHMENTS since 1995
❖ Increase fall flows for fall chinook salmon.	October 2002: Fall flows in this dry year were increased through management actions to assist fall chinook salmon to migrate from the canyon farther up into the spawning grounds of lower Scott Valley (Meamber Creek).
	Fall 2001: This extreme drought year did not allow water management to be able to increase flows during fall.
	1996 through 2000: Fall flows were sufficient to provide adequate passage (through to tailings) for fall chinook salmon runs.

RECOMMENDATION / ACTION from 1995 / 1999 Plans	ACCOMPLISHMENTS since 1995
A. Improve our understanding of the hydrology of the Scott River watershed.	
1. Develop a water budget to graphically map where the water comes from and where it goes.	<ul style="list-style-type: none"> • Literature Review (on-line / file): summary of existing water data in the Scott River Basin. (Sustainable Agriculture Research and Education Program, UC Davis, 1997; updated to 12/02). <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • Funding for Preliminary Water Balance (SWRCB Prop. 13 funding for Hydrologist, Scott River Strategic Action Plan, 2002-04) • SRWC Water Committee has outlined the Goal, objectives, and tasks needed for a water budget; currently listing Questions that need to be answered. DWR has offered some assistance with data and analysis; RCD staff has identified potential water budget models that could be used. • DWR installed two permanent streamflow gages on the East and South Forks of the Scott River. 6/02 (NCWAP funding) • USFWS, in cooperation with the RCD, installed three streamflow gages on Kidder, Shackleford, and Shackleford/Mill Creeks, 9/02.
2. Evaluate the ground water and surface water recharge effects of the irrigation ditches. More information is needed on the return rate, quantity, and	<p><u>In Progress:</u></p> <ul style="list-style-type: none"> • Wolford Slough Project: The lower reach of Wolford Slough will be used as a demonstration

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location of the ditch seepage to streams during the fall months and the effect on spawning conditions.	Wolford Slough will be used as a demonstration area to recharge groundwater system. The retained groundwater will be filtered and available for discharge later in the season. To be implemented in summer 03 (DFG - Cantara Trustee Council).
3. Identify minimum adequate flows needed for a self-sustaining fall chinook population.	<ul style="list-style-type: none"> • Observations of flows needed to provide fall chinook passage in mainstem Scott during Oct. 2001 and 2002 were made by RCD & DFG at USGS gage station.
B. Increase the instream flow of water available during the low flow period. critical fall months (after September 15 th) Work to increase flows each decade until adequate flows are achieved.	
1. Construct and evaluate temporary flow modification structures in late spring/early summer to store water for fall release in the upper Scott and headwater tributaries. Initially, a demonstration project of several of these structures should be constructed, monitored, and evaluated.	<ul style="list-style-type: none"> • A series of structures were put in place in mainstem Scott, middle valley in 1994, a severe drought year. A later project was also done in 1996 (USFWS funds). <u>Beaver Dams Demonstration Project</u> Final Report on file at RCD office (Gary Black, RCD 10/97).
2. Continue to examine the possibility of constructing permanent flow modification structures to store water for fish benefit. Hydropower could be used to offset project costs and generate revenue.	<ul style="list-style-type: none"> • Needs action.
3. Pursue upland vegetation management in the watershed to enhance water supply and timing.	<ul style="list-style-type: none"> • Upland Veg Committee established. Upland Workshops 10/96 & 10/97. Upland Veg Plan accepted by CRMP in 1998. • Juniper Treatment Workshop by Richard Miller for Council/RCD – 3/00 (funded by ?) • Upland veg. treatment project at Scott River Ranch, 2001/2002. (Contact Ted Tsudama, CDF.)
C. Reduce the demand for surface water for the non-irrigation period by promoting efficient water management practices which are economical, reliable and practical.	
1. As a first priority, promote water conservation by all water users (municipal, domestic, irrigation, & stockwater) during this period, particularly during low flow years. Educate users about potential water conservation practices and why they are needed.	
a. Promote through press releases, newsletter, and other voluntary means.	<ul style="list-style-type: none"> • Volunteers asked to not use extra water during critical low water period in Siskiyou Daily News, Fall 1994. Effect unknown. (Contact - Dennis Maria, CDFG). • Emergency Flow Release article, Oct 2002, in Pioneer Press, Capital Press, Siskiyou Daily News. (RCD, Gary Black). • DWR Watermaster worked with water right holders in 5 tributaries to obtain voluntary releases in Sept. & Oct. 2002. However, there was no extra flow to release in these watersheds.

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b. Have UC Cooperative Extension evaluate irrigation needs for crops during the fall months and recommend any needed conservation changes in irrigation practices.	<ul style="list-style-type: none"> • Current irrigation practices were monitored in alfalfa fields and irrigated pastures. Data analysis and final report 1/99. (Contact - Steve Orloff, UCCE, Yreka) • Follow-up project to evaluate the irrigation practices of 20 growers in two years to facilitate water conservation. Final Report and Brochure available from the UCCE or Siskiyou RCD (USFWS funded).
c. Focus on the Shackelford/Mill Creek system, as a first effort, to work with landowners on the need to deliver more water to the stream.	<ul style="list-style-type: none"> • Landowner group established 9/97. Group is seeking technical assistance. • DWR Watermaster worked with water right holders in October 2002 to attempt to increase flows for the fall chinook.
d. Promote urban water conservation for the county and cities.	<ul style="list-style-type: none"> • Cities of Etna and Fort Jones initiated voluntary emergency water conservation measures during the 2001 drought.
e. Evaluate the potential domestic/urban water use under the Scott Valley Area Plan, its impacts on streamflow, and opportunities for water conservation and other mitigation.	<ul style="list-style-type: none"> • Deeper domestic wells were drilled during 2001 drought in Scott Valley after 2 of wells went dry. Contact: DWR & County Emergency Services.
f. Evaluate existing and potential projects through water monitoring, using landowners who volunteer sites.	
i. Monitor fall well levels to measure changes in water table after irrigation season and during salmon spawning season.	<ul style="list-style-type: none"> • DWR continues to monitor 5 irrigation wells in the valley two times per year during fall and spring. • DWR added monthly measurements during Summer '02
ii. Test the effect of temporarily stopping diversions into ditches for stockwater use in fall to see if it will help flows for fish, or just recharge ground water adjacent to the stream. Only ditch systems that have alternative stockwatering methods already in place should be used. Monitoring of before and after streamflow and adjacent ground water conditions will be required.	<ul style="list-style-type: none"> • Emergency Flow Enhancement Fall 2002 (funded by CDFG & Dean Witter Foundation). Flows increased immediately and fall chinook did move up into the lower valley from the canyon in late October. • DWR Watermaster worked with waterusers to attempt to obtain releases during October 2002 in 5 tributaries. However, there was not sufficient flow.
iii. Encourage monitoring of water usage through gaging of diversions and pumps.	<ul style="list-style-type: none"> • DWR Watermaster asking and assisting water right holders on 5 tributaries to gage their diversions
2. Support, if appropriate, the use of alternative stockwater systems where stream diversions are used.	
a. Support the evaluation of stockwater alternatives and seek implementation of recommendations, as needed.	<ul style="list-style-type: none"> • A study of the Scott Valley Irrigation District was conducted to determine interest and feasibility, 1995. <u>Stockwater for Chinook -- Scott Valley Irrigation Ditch</u> Final Report (RCD). No action was taken due to lack of landowner support. (USFWS funding). • Other stockwater systems funded (319h, SWRCB) have protected 4.3 miles of streams and saved 10.3 cfs to streams after October 15th beginning in fall 1999. (Contact – Gary Black, RCD 5/99) <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • Stockwater system on Farmers Ditch, will be implemented in 2003/2004. (Cantara Trustee Council funds, 2002).
b. Focus on diversions in areas with greatest potential to improve fall flows in important salmon and steelhead	<ul style="list-style-type: none"> • Butts Ditch - Alternative water delivery system designed by NRCS but not accepted by users.

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areas. i. Mainstem Scott River diversions(3)	Presently inactive. (Contact - Ayn Perry, NRCS 10/97) <ul style="list-style-type: none"> • SVID (Needs Action 10/97) <u>In Progress:</u> <ul style="list-style-type: none"> • Stockwater system on Farmers Ditch funded by Cantara Trustee Council 2002, will be implemented in 2003/2004.
ii. Shackleford/Mill Creek diversions	<ul style="list-style-type: none"> • DWR Watermaster worked with water right holders in Fall 2002 to reduce ditch diversions after irrigation season.
iii. French Creek diversions	<ul style="list-style-type: none"> • DWR Watermaster worked with water right holders in Fall 2002 to reduce ditch diversions after irrigation season.
iv. Other diversions as determined by their most beneficial contribution.	<u>In Progress:</u> <ul style="list-style-type: none"> • Sugar Creek Pipeline Project to replace 4 unlined ditches with two piped ditches in 2003 to gain 5.9+_cfs of flow. The 5.9 cfs will be dedicated to instream use. (Cantara Trustee Council / CDFG funding, 2002)
3. Investigate, through demonstration projects if needed, various new methods which will reduce the pumping costs of stockwater wells and to minimize other operating and maintenance concerns.	
a. Explore use of solar powered pumps where electrical costs may be prohibitive.	<ul style="list-style-type: none"> • Field trip to assess use at Noyes Valley, 1995. (Contact – Gary Black, RCD, 10/97)
b. Demonstrate feasibility of livestock "drinking fountains" for small herds and develop methods to prevent freezing.	<ul style="list-style-type: none"> • Samples were distributed. Determined not feasible due to freezing water inside fountain. (Contact - Gary Black, RCD 10/97)
c. Identify and test methods to prevent freezing of livestock watering troughs.	<ul style="list-style-type: none"> • Some partially effective means have been found. (Contact -Gary Black, RCD 5/99)
d. Search and test other useful techniques, as needed.	<ul style="list-style-type: none"> • (Needs Action 10/97)
4. Improve the efficiency of water conveyance through ditches by lining the ditch surface or replacing with pipeline, where these practices are cost-effective.	<ul style="list-style-type: none"> • Design alternatives and costs evaluated for specific ditches. No further action taken. (Contact - Ayn Perry, NRCS, 10/97) • Sugar Creek Pipeline Feasibility Report by SHN, 12/01. (Funded by DFG, 2000). (Contact: RCD library.) <u>In Progress:</u> <ul style="list-style-type: none"> • Sugar Creek Flow Enhancement through Diversion Piping project to be implemented in 2003. Project will result in 5.9 cfs being transferred to instream use. (Funded by CDFG and CTC, 2002)
5. Develop and pursue economic incentives to improve the efficiency of all water delivery systems, including irrigation.	
a. Explore potential of a county property tax break for stockwater system improvements (i.e., not reassessed as improvement).	<ul style="list-style-type: none"> • (Needs Action 10/97)
b. Request power companies to not charge stand-by charges on stockwater well pumps.)	<ul style="list-style-type: none"> • (Needs Action 10/97)
c. Explore other options as they come up.	<ul style="list-style-type: none"> • (Needs Action 10/97)

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	<ul style="list-style-type: none"> • Fall Flows 2002 Emergency funding obtained to reimburse water rights holders for voluntarily releasing water to the Scott River to assist fall chinook run (DFG & Dean Witter Foundation funding, 2002). <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • Implementation of Scott River Water Trust will identify and pursue economic options for water leasing and purchase (“Phase II, Assessment of Scott River Flow Enhancement Options”, starting 2003. (DFG funded, 2002.)
<p>6. Explore water rights implications of conserving water through increased efficiencies.</p>	<ul style="list-style-type: none"> • Some questions answered with SWRCB’s Division of Water Rights’ response for <u>Stockwater for Chinook -- Scott Valley Irrigation Ditch</u> Final Report on file at RCD office, USFWS funded 1995. • <u>Water Law Symposiums</u> - 1995 & 2001 (video tapes on file at RCD office) (funding?) <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • “Assessment of Scott River Flow Enhancement Options”, to create a Scott River Water Trust, will thoroughly explore legal issues in the 3 adjudications, to be implemented in 2003-2004. (DFG funds, 2002.)
<p>D. Actively seek and obtain funding for the above projects, when needed, in order to minimize the cost of change to the landowner or water user.</p>	
<p>1. Pursue project grants and cost-share funding from governmental and private sources.</p>	<ul style="list-style-type: none"> • Ongoing 12/02
<p>2. Investigate the potential of voluntary purchase of water or water rights for temporary or permanent transfer to instream use.</p>	<ul style="list-style-type: none"> • Some questions answered with <u>Stockwater for Chinook -- Scott Valley Irrigation Ditch</u> Final Report on file at RCD office, USFWS funded 1995. • <u>Water Law Symposiums</u> - 1995 & 2001 (video tape on file at RCD) <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • Assessment of Flow Enhancement Options (“Water Trust”) to be implemented in 2003-2004. (CDFG, 2002)
<p>E. Assist with or help streamline the paperwork which may be required of the landowner/water user to make any of the above recommended changes.</p>	<ul style="list-style-type: none"> • RCD handles permitting required for CRMP/RCD projects. Contact - Gary Black, RCD) <p><u>In Progress:</u></p> <ul style="list-style-type: none"> • <u>Assessment of Scott River Flow Enhancement Options</u> to create a Scott River Water Trust will thoroughly explore legal issues in the 3 adjudications to be implemented in 2003-2004.