



# Kings River FISHERIES NEWS

## Model Program Is In Place

**E**ight months after it became reality, the Kings River Fisheries Management Program is doing exactly what its partners intended.



*A flow of 45 cubic feet per second passes over Fresno Weir into the lower Kings River. Under the Kings River Fisheries Management Program, monitoring makes certain flow standards are being met.*

Planning, monitoring, public involvement, and improving and protecting the river's fishery habitat have all been successful elements of the program's first several months. Participants continue to optimistically believe that the Kings River program will be a national model.

What sets this new and comprehensive program apart from many other environmental programs on California rivers and streams is an unusual partnership. It links the river's managers and water users, represented by the Kings River Water Association (KRWA) and Kings River Conservation District (KRCDD), with

the California Department of Fish and Game (CDFG). The 28 Kings River water units and other agencies are also participating.

William Loudermilk, CDFG regional manager, summed up the unique arrangement in a recent Fresno Bee article. "You have several agencies voluntarily working together to address all kinds of needs for trout life" Loudermilk said. "The key is that they agreed voluntarily. You don't see this anywhere else."

On May 28, 1999, the KRWA, KRCDD and CDFG all signed the Kings River Fisheries Management Program's Framework Agreement to launch the plan. The KRWA also finalized an internal operations agreement as well as a new upper Kings River operating agreement with Pacific Gas and Electric Company to make the broader program work. All of the program's enhanced flow and storage features were made available voluntarily by Kings River interests.

*continued on page 8*

## Summing Up The Fisheries News

**T**his issue of Kings River Fisheries News is devoted to summarizing developments and activities that have occurred during the first several months under the new Kings River Fisheries Management Program.

Fisheries News is a publication of the Kings River Conservation District, in cooperation with the Kings River Water Association and California Department of Fish and Game. Fisheries News is aimed at improving understanding of the river, its beneficial uses, and fishery issues, studies and plans.

Your comments and questions are welcomed. Please write to the Kings River Conservation District, 4886 East Jensen Avenue, Fresno, California 93725.

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# Heart Of The Program

## *Five-Year Fisheries Management Plan Being Prepared*

*The challenge...is now to balance the entire development program and avoid conflicts between projects. We need to identify conflicts and opportunities.*

**W**hen the Kings River Fisheries Management Program's Technical Steering Committee gets together these days, its members see the future.

Its efforts are being directed at preparing a five-year implementation plan to guide projects, activities and operations under the Kings River Fisheries Management Program.

"This is designed to be a working document," said Dr. Charles Hanson, consulting fisheries biologist. "The challenge for the Technical Steering Committee is how to balance the entire development program and avoid conflicts between projects. We need to identify conflicts and opportunities."

The five-year program, Hanson explained during the December 15 Kings River Fisheries Management Program's Public Advisory Group meeting, will essentially be "a vision." Public input in the process is being welcomed and encouraged through the Public Advisory Group.

The Technical Steering Committee that is heading the planning process was established along with the Fisheries Management Program's Executive Policy Committee (ExCom) and Public Advisory Group under the program's enabling Framework Agreement. That agreement was signed May 28, 1999.

Along with designated staff members of the three sponsoring agencies, the Technical Steering Committee has made extensive use of other agency staff personnel in preparing the plan. The plan's outline development was authorized by ExCom members during their first meeting on September 2, 1999.

Dr. Hanson, in explaining details of the five-year plan's preliminary conceptual outline, told the Public Advisory Group the plan represents "a multi-faceted approach. We are looking at a number of issues including more than just flows. We are examining a combination of flow and non-flow factors."

The plan is being founded on three basic elements that include:

1. Being responsive to specific elements and requirements outlined in the Fisheries Management Program's Framework Agreement.
2. Utilizing Kings River environmental studies and investigations that have already been undertaken.
3. Developing a conceptual philosophy upon which implementation factors can be based, utilizing the limiting factors analysis principle.

Elements of the Kings River Fisheries Management Program Framework Agreement addressed by the five year plan being drafted include adaptive management; stream temperature monitoring; funding for habitat enhancement projects; enforcement, education and awareness programs; fish stocking; development of criteria and monitoring; and improving public and angler access to the river.



*Fisheries management program near minimum Kings River releases flow over a riffle at the Piedra Bridge.*

Hanson said the plan, once completed this year, will provide for implementation, performance, evaluation and monitoring of the Fisheries Management Program. The long-term plan will also provide a management structure under which prioritization changes and differing funding needs can be considered from year to year.

After the first year, the plan would be revised and extended. "There are a lot of folks who would like to see this be a success," Hanson said.

On an annual basis, the five-year plan would schedule a number of recurring activities. Among these would be:

- ◆ Reviewing fishery management goals.
- ◆ Implementing hydrologic monitoring requirements, data sources and reporting formats.
- ◆ Implementing a water temperature monitoring network and other water temperature related work.
- ◆ Providing pulse flow operations as necessary.
- ◆ Reviewing hatchery stocking plans and, if necessary, contract for supplementary hatchery production and other varieties.
- ◆ Sampling and monitoring to determine a variety of baseline fisheries data.
- ◆ Monitoring within lower river reaches.
- ◆ Reviewing fishing regulations and posted notices.
- ◆ Evaluating and implementing where possible fish passage opportunities.
- ◆ Stocking of trout eggs and/or fingerling size trout from hatcheries.
- ◆ Implementing an annual tagging, marking and monitoring program.
- ◆ Compiling scientific and bibliographic references.
- ◆ Initiate studies to identify and evaluate further opportunities for habitat enhancement and enhanced instream flows.
- ◆ Identifying potential supplemental sources of funding.

The plan also projects a number of specific projects and activities for each of its first five years. During 2000, the plan calls for installation of additional Kings River gaging stations as needed, development of conceptual modeling to aid in prioritization and performance evaluation, looking at options for augmenting hatchery production for stocking, and a variety of data collection and monitoring. The Thorburn Spawning Gravel Project near Winton Park is also to be constructed. A public involvement and education program is to be developed and implemented. Similar types of projects, studies and activities would be scheduled in each of the following four years. ■■■■

*"There are a lot of folks who would like to see this be a success."*

# Board Holds First Sessions

As with all other aspects of the Kings River Fisheries Management Program, the Executive Policy Committee (ExCom) has become a reality over the past several months.

The inaugural ExCom meeting was held September 2 in the Clovis Memorial Building. A second session was conducted in Clovis on December 9.

ExCom members include representatives of the three parties to the Fisheries Management Program. They are:

- ◆ Kings River Watermaster Douglas J. Woodman, Kings River Water Association. His alternate is KRWA Assistant Watermaster Tim O'Halloran.
- ◆ General Manager-Chief Engineer Jeff L. Taylor, Kings River Conservation District. His alternate is KRCD Assistant General Manager Lynden Garver.

◆ Region IV Manager William Loudermilk, California Department of Fish and Game. CDFG Environmental Services Supervisor Dale Mitchell is the Department's alternate.

ExCom members appointed O'Halloran as executive officer. KRCD Governmental Affairs Officer Audrey Negley was named secretary.

The ExCom is the Kings River Fisheries Management Program policy-making board. ExCom members will consider recommendations of their Technical Steering Committee and Public Advisory Group in directing the program's projects, activities and planning.

Some of the ExCom's early actions included:

- ◆ Establishing a schedule under which the ExCom will meet three times annually. The next scheduled

session is Thursday, April 13, at the Clovis Memorial Building, where future meetings are to be held. The meeting time will be 3-6 p.m.

◆ Authorization of an expenditure of \$5,000 for installation of temporary measurement and recording devices at Fresno Weir and near the head of Dennis Cut.

◆ Approval of the conceptual framework for the Kings River Fisheries Management Program's proposed five year implementation plan. (Please see related story, Page 2.)

◆ Approving development of the Thorburn Spawning Gravel Project near Piedra. (Please see related story, Page 7.)

ExCom members discussed many of the Fishery Management Program's elements during their initial meetings. ■■■

## Fisheries Program's Technical Panel Has A Busy Start

Busiest of all of the Kings River Fisheries Management Program's committees has been a staff-level panel dedicated to technically based work.

By the time the Executive Policy Committee held its first meeting in September, the Technical Steering Committee had already met three times during the summer. Those sessions were held in order to plan measures that needed to be undertaken last fall. The committee has continued an aggressive workload to lay the groundwork for Fisheries Management Program planning and implementation.

Technical Steering Committee members represent the program's three partnering agencies. Jerry Staley, California Department of Fish and Game senior biologist. His alternate is Stan Stephens, CDFG wild trout biologist.

KRCD is represented by Dale Stanton, chief of the District's engineering division. Jeff Halstead, chief of KRCD's environmental division, is the District's alternate member.

Representing the Kings River Water Association is Assistant Watermaster Tim O'Halloran, who also serves as the Fisheries Management Program's executive officer.

## Thousands Of Brown Trout Eggs Planted In River

Some 800,000 brown trout eggs provided by California Department of Fish and Game were planted in the Kings River January 10.

Eggs were planted in the river immediately upstream from its confluence with Mill Creek, about a mile below Pine Flat Dam. This protects

the eggs from unregulated flows from Mill Creek which can become high during a heavy rainfall.

KRCD, California Department of Fish and Game and Fresno Fly Fishers for Conservation volunteers handled the planting of the eggs in 66 tons of gravel placed in the river as a spawning bed.

The planting had to be moved up one day when the eggs, brought to the San Joaquin Fish Hatchery at Friant by KRCD personnel from a hatchery in Shasta County, began hatching earlier than expected.

This is the third year the planting has taken place. ■■■

# Corps of Engineers Study Is Nearing Completion

A U.S. Army Corps of Engineers feasibility study on three potential Kings River environmental projects is nearly completed. Formally known as the Pine Flat Dam Fish and Wildlife Habitat Restoration Feasibility Study, the analysis is due to be completed in draft form during March. It is expected to be released for public review April 5. Corps officials hope to complete a final report by the end of May

“The Corps must determine if there is a federal interest in these projects,” said Kings River Conservation District General Manager Jeff L. Taylor.

The feasibility study and the projects it has been examining differ from the turbine bypass project that the Corps plans at the base of Pine Flat Dam. (Please see related story, this page.)

Largest of the projects analyzed in the feasibility study is a multi-level intake structure. This large structure would, if built, be mounted on the upstream face of Pine Flat Dam over the inlets to KRCD's Pine Flat Power Plant penstock inlets. It would include portals to draw water for release into the river from different elevations within the reservoir in order to control downstream water temperatures. The project's estimated cost is \$32.1 million.

Another major project that has been part of the feasibility study is a water transfer pipeline. This facility would make possible the delivery of Kings River water to the Mendota Pool area in western Fresno County during fall and winter months. During those periods of typically minimal irrigation demand, the wildlife refuge water, delivered to the proposed pipeline through the Fresno Irrigation District system, would add to fishery habitat flows below the dam. An exchange agreement is proposed to return water to the Kings River service area through a KRWA member unit with available Central Valley Project and/or State Water Project contracts. The project's preliminary cost estimate is \$29.1 million.

A third project, estimated to cost \$740,000, would include habitat restoration along the river near the Friant-Kern Canal undercrossing a few miles northeast of Centerville.

KRCD and the KRWA are the local cost-sharing sponsors. KRCD's staff has assisted in the study.

Even though the feasibility study is approaching the finish line, Taylor noted, “There is no way to tell how long it may be until there is talk about appropriations for these projects.” He pointed out that the KRCD and KRWA must also wrestle with how to finance the local share of any environmental project cost. ➡

## Bypass Project Moves Ahead

The U.S. Army Corps of Engineers is about ready to move ahead with development of a turbine bypass system at the base of Pine Flat Dam.

The turbine bypass will provide a partial means for better controlling temperatures of water being released into the Kings River at times when irrigation demands are insufficient to operate the Kings River Conservation District's Pine Flat Power Plant.

Turbine bypass pipes and valves, connecting with the power plant's three penstocks as they emerge from the dam, will be constructed. Minimal water flows insufficient to turn the power plant turbines will be redirected through the new pipes into the river, beneath the dam's spillway.

The Corps in February is expected to release the first portion of the project's plans and specifications, and call for bids.

KRCD directors have authorized the District to enter into a cost-sharing agreement with the Corps for the project. KRCD's portion of the cost will be shared equally with the KRWA.

The Corps, with approval by Congress, is undertaking the project on a "fast track" basis as a Pine Flat Project modification. It will help mitigate for habitat impacts created when Pine Flat Dam was completed in 1954.

Project construction will not interfere with the Kings River water release or Pine Flat Power Plant operations.

# Public Advisory Group Off To An Eager Start

Dozens of anglers have eagerly and enthusiastically signaled that their interest in the Kings River's fishery will translate into willingness to help with the river's habitat planning process.

The Kings River Fisheries Management Program's Public Advisory Group first met on November 9 in Clovis with 65 people in attendance. Subsequent meetings were held December 15 in Fresno and January 25 in Malaga.

"Our next meeting will be on the fifth Tuesday of February, the 29th," said Mickey Powell of Visalia, Public Advisory Group chairman. "Everybody is welcomed. Just because you may not have attended in the past doesn't mean that the committee isn't looking for additional participation."

The meeting will take place at the Brooks Ranch Restaurant, Chestnut Avenue at Highway 99 in Malaga. Dinner will be at 6 p.m. with the meeting at 7 p.m. "We always finish before 9:30," Powell said.

Powell, a member of the Kaweah Fly Fishers and Lower Kings River Committee, was selected as interim chairman by those attending the inaugural meeting. That session, held in the Clovis Memorial Building, had to be moved into a larger room because so many more people attended than had been expected.

As the Public Advisory Group's most recent meeting, a nine-member Steering Committee was formed. It represents eight areas of interest identified by those attending the first meeting as well as an at-large member.

Along with Powell, Steering Committee members include Dr. Ron Richards, Roger Miller, Greg Kennon and Larry Naney, all of Fresno; Charles McNees and Fred Ramirez, both of Clovis; and Hank Urbach and Tal Cloud, both of Sanger.

Most of the organizations that sent representatives to the inaugural meeting are represented on the Steering Committee.

Powell hopes the Public Advisory Group "will focus more on these eight areas of concern." He is encouraging the subcommittees organized at the earlier sessions to begin studying and discussing the eight major areas between Steering Committee meetings.

The Public Advisory Group was established under provisions in the Kings River Fisheries Management Program's Framework Agreement. The Framework Agreement was approved May 28 1999, by the Kings River Water Association, Kings River Conservation District and California Department of Fish and Game.

Powell explained during the group's first meeting that the Public Advisory Committee would not make policy but would be expected to suggest policy. Powell said he strongly believes the angling community must give the process an opportunity to work.

The Public Advisory Group may take up any subject and ask for information from the Kings River Fisheries Management Program's Technical Steering Committee or other experts. The program's Executive Policy Committee (ExCom) has asked the Public Advisory Group



*A fisherman winds up his afternoon at Winton Park.*

to make its recommendations through a consensus-based process with any minority views presented in writing.

Many ideas were voiced at the first meeting to help identify issues of interest. Two dozen such subjects were identified and those were narrowed down to the eight areas of concern and their subcommittees, some of which soon began regularly meeting. There was also considerable discussion on ways to measure progress in the Kings River efforts. Suggestions were made for development of an angler "report card" and establishment of a website to make possible electronic reporting and rapid communications.

Reports were given during the first few Public Advisory Group meetings on the Fisheries Management Program and all Kings River fishery-related planning and habitat activities. (Summaries of those studies and projects are included in this issue of Kings River Fisheries News.) ➡

# New Life For An Old Channel

An old Piedra area channel that only a few months ago was choked and blanketed with overgrowth is on the brink of becoming the young Kings River Fisheries Management Program's most visible and tangible sign of habitat enhancement progress.

Construction is scheduled to be completed this spring along the alignment of the old channel of a new, specially designed channel to be conducive to the natural spawning and rearing of trout.

Known as the Thorburn Spawning Gravel Project, the work is taking place alongside Piedra Road, immediately downstream from Winton Park.

Preliminary work began last fall when the Kings River Conservation District hired a contractor to clear the project site of its thick, practically impenetrable stands of arundo (also known as "false bamboo.") With an extensive root structure in place, KRCD anticipates an extended struggle to fully eliminate the arundo.

The extensive site work was necessary to provide visibility for KRCD engineers to be able to see the setting and calculate channel earthwork quantities. "As we were completing the project's feasibility study last April, it was difficult to even estimate the cross section of the channel," said Dale Stanton, KRCD engineering division chief.

Total project cost is projected to be \$222,000. The cost will be partially offset by a \$116,000 grant obtained by KRCD from Caltrans under their Environmental Enhancement and Mitigation Program. The remaining costs will be shared equally by KRCD and Kings River Water Association.

"We hope to have the project completed by May 20," Stanton told members of the Kings River Fisheries

Management Program Public Advisory Group.

The channel is approximately one-half mile in length, along the left (southeast) bank of the main river. A feasibility study, completed by the KRCD prior to enactment of the Kings River Fisheries Management Program, determined that the channel will be an effective spawning site for trout.

Project designers have added meanders to the channel in order to optimize its length and habitat benefit in the space available. Further habitat enhancement will be achieved through the planting of trees that are native to the area, such as oak, cottonwood and willow.

Water will flow from the river into the channel through a gated inlet structure that, together with the shape and slope of the channel, will allow control of the depth and velocity of water in the channel. This will create conditions favorable for spawning, hatching and rearing of trout. Additionally, hiding cover will be provided by strategically placed logs and boulders.

The channel's outflow has been designed to blend naturally into the river from a calm pond, in which young fish can safely grow. Trout will be able to enter and exit the spawning channel at the lower end. It will be available for use all year.

The project is being pursued ahead of the major portion of the Kings River Fisheries Management Program planning process because of availability of funding and the fact that studies had been completed.



*These pictures represent before and after views of stage one (channel clearing) of the Thorburn Spawning Gravel Project. The sycamore in the left of both pictures shows the heavy undergrowth of non-native false bamboo which had invaded the area for many years, choking out native plants.*

Construction of the project at this ideal location would not have been possible were it not for the generosity of the owners of the site, Jack and Margaret Thorburn. Because of their avid interest in environmental issues, particularly those concerning rivers and fisheries, they were prompted to enter into an easement agreement for use of the property.

While the project promises to be a shot in the arm for the Kings River's overall fishery health there is bad news for anglers: The Thorburn Spawning Gravel Project will be off limits to all fishing. ■■■

# Model Program, *continued*

As part of that effort, a new set of operating criteria were immediately enacted and implemented by the KRWA, resulting in enhanced minimum flows in the Kings River last fall in its nine mile reach between Pine Flat Dam and Fresno Weir, northeast of Centerville. Under the Framework Agreement, KRWA now provides minimum flows of at least 100 cubic feet per second at Piedra, an amount twice that required in most years under the now superceded-KRWA-CDFG minimum flow agreement.

This past autumn's flows, following completion of the irrigation season, were generally somewhat above the minimum. They served to maintain water temperatures and habitat suitable for trout. Also under the program, flows of 45 c.f.s. over Fresno Weir and into the lower river were provided. Measurements were made during the low flow periods to ensure that the standards were met.

Even though there was some hot weather last fall after the irrigation season ended, there was no need for pulse flows of colder water for trout. However, the KRWA was ready to respond to such a situation under terms of the Framework Agreement. Pine Flat Reservoir's substantial carryover storage into the 1999 irrigation season, coupled with last summer's often mild temperatures, kept reservoir storage far above the 100,000

acre-feet prescribed in the Framework Agreement for a reservoir temperature control pool. The temperature control pool is to aid in maintaining a pool of cool water for use in reservoir and downstream fisheries under many, although possibly not all, critically dry conditions.

For Pine Flat Reservoir, the new temperature control pool was historic because the reservoir has never had any type of minimum storage requirement. Some 12 percent of their storage rights were made available by KRWA member units to provide water for the temperature control pool and for water Pacific Gas and Electric Company will be entitled to hold in Courtright Lake and Lake Wishon under certain circumstances.

The new KRWA-PG&E agreement and upstream water release modifications were necessary for Pine Flat Reservoir's temperature control pool to work.

While considerable attention has been devoted to operational issues, a great deal of study and discussions have taken place over development of a five-year plan (please see related story, Page 2) and issues such as fish stocking, enforcement, public information and education, stream monitoring and program funding.

KRWA and KRCD immediately began providing their shares of the

Kings River Fisheries Management Program's funding. The Framework Agreement requires KRCD and KRWA to collectively contribute \$1 million in money or in-kind services over a 10-year period. Each agency contributed \$50,000 as its portion of first-year program funding.

Under the Framework Agreement, the CDFG is to actively seek appropriations, grants and other sources of funding to provide another \$1 million to the program over the 10-year period.

A key program element is adaptive management. That process is to govern the program. Decisions are to be based upon the best available scientific and technical information, while considering the many beneficial uses and existing water rights on the Kings River. Maximum flexibility is an important goal. Changing needs, opportunities and constraints are expected to all have a hand in guiding and adjusting the program.

Program implementation will occur in phases. It is to consider natural variations in water availability when establishing flow, temperature and reservoir carryover storage targets. Fishery needs are to be balanced with other beneficial uses, keeping established water rights in focus. Maximum advantage is to be made of conjunctive or sequential uses of water. ■■■

## FISHERIES NEWS

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