Help needed to monitor river water

By Jessie Altstatt
Guest writer

eye on the environment

This month marks the one-year anniversary of the Ventura River Stream Team, a hardy band of volunteers who meet monthly to monitor water quality as an indication of the health of the Ventura River watershed. Bright and early on Saturdays, Stream Team members — mostly volunteers — receive their instructions, sampling bottles and clipboards and head up the river to gather data.

Their effort is funded by the city of San Buenaventura as part of a legal settlement over a case of misapplied sewage sludge. Everyone involved in the settlement agreed the Ventura River needed an active group of volunteers who would assemble every month to check on the state of the water.

Although the County Health Department tests ocean water weekly at many spots along the coastline — and surfers and beachgoers are generally aware of water-quality conditions at their favorite spots — no regular and comprehensive water-quality testing was conducted in the river to identify specific sources of contamination. The obvious action was to look upstream, sampling and testing at certain river segments and junctions with other streams. This was — and still is — the perfect sort of program for volunteer involvement.

The Stream Team is part of a growing network of similar volunteer monitoring programs throughout California. Coordinated locally by the Santa Barbara ChannelKeeper and Ventura Surfrider Foundation, the group has benefited from a strong core of committed volunteers who now can be considered entry-level chemists and hydrologists.

"The best part about the Stream Team is that it gives people who care about the river and the watershed a chance to help out where it really matters," notes Paul Jenkin, environmental director with the Ventura chapter of Surfrider.

The ultimate objective of the program is to help responsible agencies and the public identify where ecological improvements will be most effective to benefit water quality throughout the Ventura River watershed. Stream Team members are trained to collect the data needed.

To do this, the Stream Team program has three goals: to establish long-term monitoring to collect baseline data on the Ventura River; to establish a volunteer base of workers; and to help find polluted "hot spots" and their sources. Fifteen sites along the river are now monitored from just above the estuary at the Main Street bridge to pristine sites above Matilija Dam.

Since the first sample was collected on Jan. 20, 2001, Stream Team members have volunteered more than 850 hours in the field and collected data from over 4,200 sampling points. The data include on-site measurements of dissolved oxygen, turbidity, conductivity, pH and temperature. Additionally, water collected at each site is analyzed at ChannelKeeper's laboratory for pollutants, such as nitrates, phosphates, coliform and the bacteria E. coli and Enterococcus.

To know the actual volume of pollutants traveling downstream past each monitoring location, the water flow in the river also must be calculated. This involves a popular field instrument — orange peels.

To measure how fast the water is moving, orange peels are tossed in and timed as they float along a predetermined distance. These orange-peel races often reveal hidden eddies and back currents along the stream banks, which help in calibrating the flow calculation. Such quality assurance with citrus is critical because water movement often is not uniform with all the boulders and turbulence in the Ventura River.

The Stream Team effort complements other measurements of flow that are taken by Ventura County Flood Control District. The difference is the county's data is mainly geared to floods and high flows during heavy rainstorms. The Stream Team data focuses on low flow conditions that are necessary for accurate water-quality monitoring and are typical for most of the time. Results over the past year show the low flow data is measured reliably and accurately at the sampling sites.

New Stream Team volunteers are always welcome. To get involved or for further information, contact Jessie Altstatt from ChannelKeeper at 563-3399 or Jessie@sbck.org or check out the Web site at www.rain.org/~pjenkin/streamteam.

— Jessie Altstatt is a biologist and Santa Barbara ChannelKeeper program director.

THE STAR

SUNDAY
JAN. 27, 2002

SECTION B

West County Bureau Chief:
Ken Maryanski, 655-1736

eye on the environment

Many tough questions arise about Matilija job

By Sherri Dugdale and Sue Hughes
Guest writers

How do you go about dismantling a 198-foot-high dam? What do you do with more than 6 million cubic yards of sediment trapped behind the dam? How do you return a river to a state where it will support spawning steelhead?

These are just some of the questions currently being discussed by a coalition of federal, state and local agencies, environmental organizations and the public.

Constructed in 1947 by the Ventura County Flood Control District, Matilija Dam was intended to provide a local water supply while offering flood protection for downstream communities.

During the 50 years of its life, the buildup of sediment behind the dam has undermined both of those original functions. The initial storage capacity of the reservoir was 7,018 acre-feet, but today it holds less than 500 acre-feet — scarcely enough to meet the annual needs of 1,000 people.

Over time, it has become clear that the dam has adversely affected the ecosystems of Matilija Creek and the Ventura River. Not only does the dam prevent the natural flow of sand and sediment from the mountains to the beaches, but it also blocks the endangered steelhead trout from swimming upstream from the ocean to the place of its ancestral spawning and rearing. Steelhead depend on the cool, year-round waters found only in the upper reaches of the watershed. Today, more than half of the original steelhead spawning habitat lies locked behind the dam.

An effort was launched in spring 1999 to assess the viability of the dam's removal and an ecosystem restoration. This effort was led by the U.S. Bureau of Reclamation and culminated in the publication of an appraisal study.

On Oct. 12, 2000, then-Secretary of the Interior Bruce Babbitt participated in a demonstration project at Matilija Dam that evaluated the effectiveness of various concrete-removal techniques. With more than 250 people in attendance, the event propelled the project into the national spotlight and captured some public interest.

In June 2001, the U.S. Army Corps of Engineers, in partnership with the Ventura County Flood Control District, initiated a feasibility study to assess the extent of federal participation in the project. Work groups were formed to address environmental concerns, public outreach, recreation, plan formulation, technical studies and funding opportunities. The study is expected to take about two years.

The Corps of Engineers and Flood Control District will hold the first of several public meetings about the Matilija Dam Ecosystem Restoration Project from 7 to 9 p.m. Thursday in the Ventura County Board of Supervisors' Hearing Room, Hall of Administration, 800 S. Victoria Ave., Ventura.

The meeting is designed to solicit public comment about the feasibility study in advance of preparing an environmental-impact report. The work groups are interested in any useful information about Matilija Dam or the Ventura River and its tributaries, including photographs, environmental studies and watershed data.

Call Darla Wise at 654-3942 or e-mail her at darla.wise@mail.co.ventura.ca.us. For more on the dam, visit www.matilijadam.org.

Sherri Dugdale is a watershed management-grant specialist for the Ventura County Flood Control District. Sue Hughes is the legislative analyst for Ventura County.

Conservation

Ventura River Restoration

By Mark R. Tompkins

PHOTO BY MARK R. TOMPKINS

The Ventura River upstream of the Matilija Dam

Southern California is not known around the world for its steelhead fishing. Movies, yes. Fantastic river fishing, no. This probably comes as no surprise to fly fishers elsewhere. In fact, most of us think of rivers like the channelized and concrete-lined L.A. River—a watercourse better suited to Hollywood car chases than fish—when we picture Southern California. Steelhead are amazing, resilient creatures, but even they can't handle the conversions that have taken place on many Southland rivers. It would be wrong, however, to assume that the region is totally devoid of steelies.

The Ventura River, which flows from Los Padres National Forest to the Pacific Ocean in Ventura County, still supports a population of southern steelhead. Historically the Ventura River steelhead numbered nearly 5,000, but after 50 years of dams and water diversions, the run dwindled to a meager 100 fish and was placed on the federal Endangered Species list in 1997. Most of the folks familiar with the situation agree that the 200-foot-high Matilija Dam, constructed by the Ventura County Flood Control District in 1947, is at the heart of the problem. Matilija has no fish ladder and blocks steelhead from reaching 50 percent of their historic spawning grounds. In addition, the reservoir behind the dam is filled with several million cubic yards of sediment and therefore can no longer control floods or supply a significant amount of water. All that sediment used to replenish the beaches near the mouth of the river—beaches that have been eroding since the dam was constructed. This long list of problems prompted American Rivers (www.amrivers.org) to include the Ventura on its list of the United States' most endangered rivers in 2000.

Today there is widespread support in Southern California and throughout the state for the removal of Matilija Dam. It is expected that a project that includes the removal of Matilija Dam and the provision of fish passage at Robles Dam downstream would help restore the southern steelhead population in the Ventura River and begin to replenish the sediment-starved beaches at the Ventura's mouth. Nonprofit groups, including American Rivers, Friends of the River, CalTrout, and the Surfriders Foundation, have banded together to generate momentum for the restoration of the Ventura River, and the removal of Matilija Dam would be a giant leap in that process. The interest in the Ventura that these groups have helped generate has led to feasibility studies by the U.S. Geological Survey, the U.S. Bureau of Reclamation, and the U.S. Army Corps of Engineers on the cost, feasibility, and potential benefits of removing Matilija Dam. The effort gained national attention when former Secretary of the Interior Bruce Babbitt presided over a somewhat ceremonial removal of a chunk of the dam in October 2000.

The will to remove the dam is definitely there, but the money is another story. The feasibility studies estimated the cost of removing the dam at between $25 million (for a phased removal that would allow sediment to be transported downstream naturally over 25 years) and $179 million (for a slurry pipe that would quickly carry the sediment out of the reservoir). Securing the funding for such a pricey project has proven difficult. Still, despite the high cost of dam removal, the project has continued to gain support. Officials from Ventura County and a host of other state and local agencies have come out in favor of the removal project, and it has become apparent to many people in the area that the Ventura River steelhead, considered by some fisheries biologists as the parent stock of all steelhead on the Pacific Coast, will be critical to California's steelhead restoration plan for the region. It is still unclear how, when, and even if the Matilija Dam will be removed. But if it is, it will reopen a significant stretch of river to a struggling steelhead population and hopefully will allow fly fishers in Southern California to watch as strong populations of these amazing sport fish return to their corner of the state.