

SANTA CLARA RIVER WATERSHED TIMES

What's happening around the watershed?

**UC
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Fall 2006

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Watershed News Inaugural Issue!

Welcome to the inaugural issue of the Santa Clara River Watershed Times! This newsletter will cover topics vital to anyone who lives, works, and recreates in the Santa Clara River watershed, the largest river system in Southern California which remains in a relatively natural state. The Santa Clara River watershed has an area of about 1634 square miles and runs from its headwaters in the San Gabriel Mountains of Los Angeles County down to the ocean in the City of San Buenaventura. Approximately 60 percent of the watershed lies in Ventura County, with 40 percent situated in Los Angeles County.

The Santa Clara River watershed supports a variety of plant communities, providing habitat to over 35 sensitive animal and plant species, 14 of which are considered endangered and/or threatened. The Santa Clara River estuary, a natural preserve, is one of the richest animal and habitat areas along the California coast.

This newsletter presents articles concerning all aspects of the watershed. They deal with issues such as land development, ecology, water quality, and water quantity, and are written by a wide variety of experts from academia, government agencies, businesses, non-profit organizations, and community groups. We will bring you updates and information on the latest watershed reports and studies, as well as event notifications and reviews. We hope this newsletter will become a forum where Santa Clara River watershed stakeholders can turn for objective insights on current events in and around the watershed.

Valerie Borel, UCCE Editor

Santa Clara River Watershed Trustee Council Update

By Denise Steurer
US Fish & Wildlife Service

The Santa Clara River Trustee Council, made up of representatives from the U.S. Fish and Wildlife Service (FWS) and the California Department of Fish and Game (CDFG), administers the Santa Clara River Restoration Projects Grant Program. In its second year of implementation, the Grants Program is funded by the settlement of claims for natural resource damages resulting from the ARCO pipeline oil spill that occurred in the Santa Clara River in 1994. The Trustee Council made available \$1.5 million (out of a total \$7.1 million settlement) for various types

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The Santa Clara river mouth in Ventura
Copyright (C) 2002-2005 Kenneth & Gabrielle Adelman, California

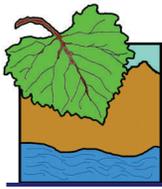


Portion of the Santa Clara River ARCO Spill Site
Photo Courtesy of CA Dept. of Fish & Game



Arundo donax (Giant Reed) threatens Santa Clara River habitat
El Estanque (C) 2002 Pablo J. Saubot

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Council Update cont.

(Continued from page 1)

of restoration projects in the Santa Clara River watershed in Ventura and Los Angeles Counties. These projects include habitat improvement, ecological research and monitoring, and educational efforts associated with habitat restoration. The general intent of the grant program is that the restoration project completions will provide an overall compensation for the injuries to natural resources from the oil spill. This compensation will be in the form of improved habitats, increased knowledge and understanding of the Santa Clara River watershed and its wildlife and habitats, and increased awareness among the public about restoring this wonderful resource we call the Santa Clara River watershed. Hopefully, through this expanded understanding and awareness, a stewardship and land ethic will grow among those who live, work and recreate in the watershed. In order to share with the public the results thus far from such restoration projects as the habitat restoration at the Hedrick Nature Area, the Watershed U. education course and the steelhead habitat assessment and recovery opportunities study, a symposium is being planned for 2007 to present the research and habitat restoration projects and others that are ongoing in the Santa Clara River watershed. (More information will follow in the next issue of the newsletter!)

Santa Clara River Restoration Projects:

- UCLA Riparian Restoration Research & Restoration Handbook
- Amphibian and Macroinvertebrate Bioassessment
- Steelhead Habitat Assessment and Recovery Opportunities
- Protection/Restoration Plan for Upper SCR
- SCR Native Fishes Distribution and Abundance
- SCR Touring Exhibit Project
- Watershed U. - Santa Clara River
- SCR Outreach Campaign Project
- River Rally
- Hedrick Ranch Nature Area Project
- Think River
- Santa Clara River Invasive Plant Removal Program
- Biological Control of Invasive Giant Reed (*Arundo donax*) in the Santa Clara River Watershed
- Habitat Restoration at Hedrick Nature Area
- Avian Surveys in the SCR
- Vegetation Classification and Mapping of the SCR
- Removing Zoning Barriers to Acquisition of River Properties

For updates on and description of the restoration grant projects, please visit www.santaclarariverparkway.org. Reports and results of the projects will be posted to this website as they become available.



Water quality and Bioassessment sampling by Aquatic Bioassay & Consulting Laboratory biologists
 Photo courtesy of Aquatic Bioassay & Consulting Laboratories, Inc., Ventura, CA

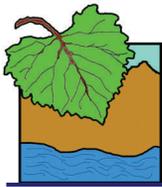


Cardinal Monkey (*Mimulus cardinalis*)
 Photo by W. Sears



Chaparral Yucca in San Francisquito Canyon, Santa Clarita
 Copyright © 2003 BonTerra Consulting





Santa Clara River Watershed Committee Planning Process Underway

By Lynn Rodriguez and Sue Hughes

In July 2006, a stakeholder group was formed to develop a long-term watershed management plan for areas along the Santa Clara River Watershed. This new group, the Santa Clara River Watershed Committee (SCRWC), was formed under the auspices of the Watersheds Coalition of Ventura County (WCVC) as part of a region-wide effort to prepare and implement an integrated regional water management plan (IRWMP). The IRWMP includes all three major watersheds in Ventura County, and will eventually include the upper Santa Clara River watershed. The IRWMP is being prepared, in part, with grant funds from the November 2002 California voter-approved Proposition 50.

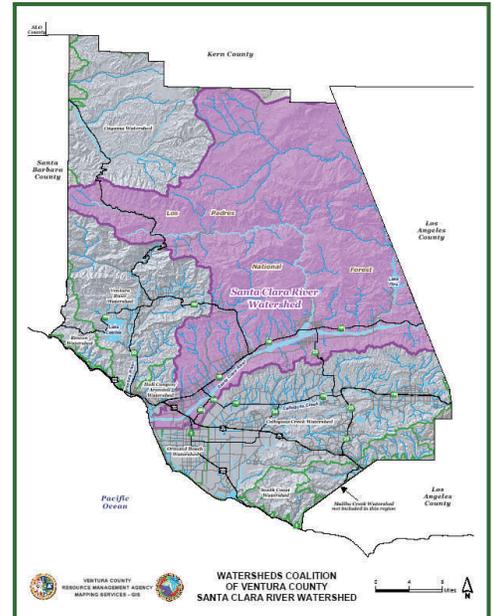
Some of the critical challenges along the watershed include increased salinity due to water softener and wastewater discharges, periodic flooding events resulting in property and environmental damage, and water quality degradation due to septic tanks and agricultural runoff.

The SCRWC has focused its efforts on developing objectives and future project concepts that will address water issues and problems in the watershed. Attendance at these meetings has included over 30 people representing state and federal agencies (such as Fish and Wildlife Service, Army Corps of Engineers, Regional Water Quality Control Board, UC Cooperative Extension) and local water agencies, cities, the County Board of Supervisors and public interest and environmental groups (such as the Nature Conservancy, Friends of the Santa Clara River). Interested parties from Los Angeles County such as the City of Santa Clarita, Castaic Lake Water Agency, Newhall Land and Farming, County Sanitation Districts and Los Angeles County Public Works Agency are also participating in the SCRWC meetings. Currently, four conveners direct the SCRWC activities: Sue Hughes, Ventura County Executive Office; Bruce Hamamoto, County of Los Angeles Public Works Department; E.J. Remson, The Nature Conservancy; and Dana Wisheart, United Water Conservation District.

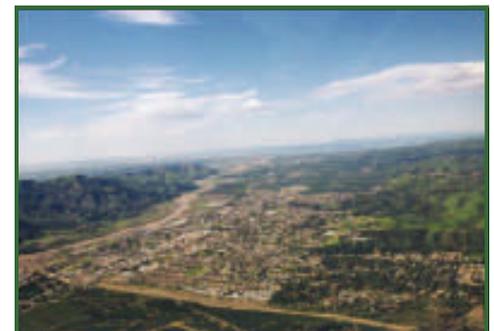
The objectives developed by the SCRWC include:

- Reduce dependence on imported state water, protect, conserve and augment water supplies and improve water supply reliability
- Sustain, protect and restore ecosystem functions throughout the watershed (includes upland areas down to estuaries/ocean)
- Protect and improve water quality throughout the watershed

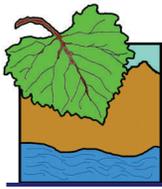
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Freeman Diversion Dam
Photo by Donald Rodriguez



Santa Clara River Valley
Photo courtesy of Watersheds Coalition of Ventura County



Watershed Committee cont.

(Continued from page 3)

- Provide compatible watershed-related recreational, public access and educational opportunities
- Protect people, property and the environment from adverse flooding impacts (minimize damage from flooding)

Prior to the formation of the SCRWC, the WCVF submitted an application for Proposition 50 Implementation funding; the application consisted of a suite of 11 projects within the Calleguas, Santa Clara and Ventura River Watersheds. The WCVF is one of sixteen regions throughout California being considered for implementation funding. The three projects proposed for the Santa Clara River Watershed focus on water quality improvement, and they include: The El Rio Forebay Groundwater Contaminant Elimination Project, Oxnard Forebay Groundwater Contaminant Elimination Project, and the Fillmore Integrated Water Recycling Project.

Recently, the SCRWC developed a list of the preferred types of projects and programs that should be pursued to meet the Plan's objectives. (See sidebar)

Future implementation actions and project concepts are being developed by the SCRWC based on the agreed-upon objectives and preferred types of projects and programs and will be included in any watershed management plan developed in the future.

The efforts of the SCRWC are building upon the work previously conducted by both the Ventura County Task Force of the Southern California Wetlands Recovery Project, and a steering committee that worked for 10 years to develop the Santa Clara River Enhancement Plan (SCREMP) which was completed in 2005.

Participants are optimistic that the recommendations developed by the SCRWC will lead to improved collaboration along the watershed and bring additional funds to the region to implement much needed projects that will protect and enhance the resources in the watershed.

For more information contact Sue Hughes at (805) 654-3836 or visit www.watershedscoalition.org.



*The Santa Clara River looking south.
Photo courtesy of U.S. Geological Survey*

Potential Programs & Projects of the IRWMP in the Santa Clara River watershed:

General Projects/Programs:

- Develop watershed protection plan
- Create position for watershed coordinator
- Develop and maintain an inventory/assessment of information (biology, chemistry, hydrology, etc)
- Develop and maintain a database for the watershed

Water Supply enhancement Projects:

- Implement coordinated water use efficiency program
- Implement recycled water projects
- Increase groundwater recharge
- Pursue importation of State Water entitlements
- Develop inter-tie projects that are mutually beneficial

Water Quality Improvement Projects:

- Salinity management (i.e. brine line)
- Replace septic systems
- Nutrient management projects (i.e. algae, agricultural discharge management)

Ecosystem Protection and Restoration Projects:

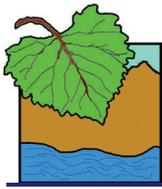
- Invasive species (plants and animals) control
- Remove fish passage barriers
- Pursue floodplain restoration projects
- Land protection/acquisition (i.e. for open space and habitat restoration)

Flood Management Projects:

- Remove hazards and facilities (such as sewer trunk lines) from the river
- Develop a watershed-wide flood protection plan containing guiding principles, including investigation of alternatives to traditional flood management techniques (i.e. projects providing more ecosystem benefits)
- Develop watercourse setback ordinance and/or policies

Recreation and Public Access

- Pursue development of the Santa Clara River Parkway



Santa Clara River Land Acquisitions

Sandi Matsumoto
The Nature Conservancy

Over the past six years, The Nature Conservancy (TNC) has preserved more than 10.5 miles of the Santa Clara River – the equivalent of nearly one-third of the river as it flows through Ventura County.

With about 95% of wetlands in Southern California gone, the Santa Clara represents the last large intact fresh-water system in the region draining into the Pacific Ocean.

More than seventeen threatened or endangered species rely on the Santa Clara, along with twenty species that may become endangered if their decline is not reversed. These species include the anadromous southern steelhead trout, the southwestern pond turtle, the red-legged frog and the least Bell's vireo, a small song bird. With TNC's mission to protect biodiversity, the Santa Clara River is an obvious conservation priority.

Unlike most major American rivers, which are publicly owned, the Santa Clara riverbed is fractured into thousands of parcels that are primarily owned by private entities. The parcels range from several acres to several hundred acres in size.

The dispersed ownership makes protection of the river's rare and threatened habitat, as well as the relatively-natural hydrologic regime, extremely difficult. In order to preserve the remaining habitat, retain a sufficient floodplain and restore degraded sites, The Nature Conservancy has been strategically acquiring riverbed properties.

To date, The Nature Conservancy's river protection efforts have focused primarily upon the lower watershed, in Ventura County. TNC currently owns 16 river properties, acquired with funding from the State Coastal Conservancy, the Santa Clara River Trustee Council, and other public and private sources.

The Nature Conservancy's river holdings total more than 2,400 acres. In addition, Friends of the Santa Clara River, a private nonprofit public interest organization, has acquired the 220-acre Hedrick Ranch Nature Area, which was also funded by the State Coastal Conservancy, a state agency.

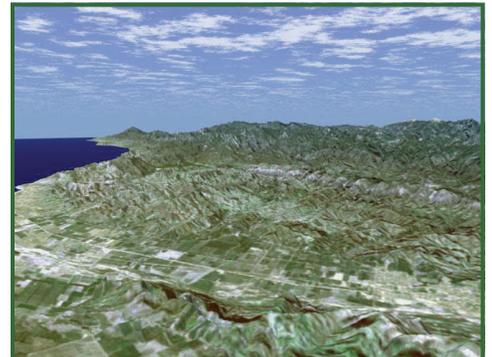
The preserved properties span from Victoria Avenue, in Ventura, all the way out to the county line. Each acquired parcel was identified by TNC's planning and science staff as high in biodiversity, highly threatened, and/or important to retaining hydrologic function.

Several of TNC's properties include productive agricultural lands, which are leased back to the owner if they wish to continue farming or to other farming tenants. Preserving agriculture, while not part of The Nature Conservancy's mission, is an important conservation strategy because it supports sustainability in the Santa Clara River Valley. Developing the Santa Clara River Valley into another suburb of Los Angeles would cause the

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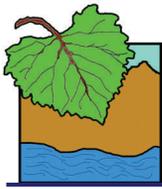


California Juniper on the Santa Clara River Floodplain near Acton.
© 2003 BonTerra Consulting



Santa Clara River Valley from Landsat in Space Shuttle
Photo Courtesy of NASA/JPL/NIMA/USGS





Land Acquisitions, cont.

(Continued from page 5)

river irreparable harm.

Agricultural lands are beneficial to the Santa Clara's health because they absorb rainfall, allowing water to percolate into the ground, recharge ground water supplies, and slowly seep into the river. If agriculture were replaced by suburbs, rainfall would land on paved streets and rooftops, be diverted to drains and would directly enter the river system with no chance to be absorbed by the ground. Urbanization thus increases peak river flow rates and decreases the length of flow periods causing flooding, jeopardizing steelhead runs, scouring habitat and creating a need for additional costly flood protection.

To enhance protected lands, the Conservancy is undertaking several habitat restoration projects to remove non-native plants and restore native plant communities. In the coming year, TNC will launch its first major restoration project on a 1,000-acre property that includes riverbed, transitional upland habitat and hillside.

Focused conservation has also begun in the upper watershed. Over the past year, The Nature Conservancy has been collaborating with several dozen representatives from agencies, nonprofit organizations, consultant firms and academia to develop a conservation plan for the Los Angeles County portion of the watershed. The plan, to be released this fall, identifies priority conservation areas and provides strategies, including additional focused acquisition, to protect the Santa Clara.

With limited resources, a lack of trails and a focus on further conservation, The Nature Conservancy's properties are not currently open to the public. However, individual access can be arranged by calling 805.642.0345 x. 502. Plans are also underway to increase access to teachers and students to use the protected sites for local youth education.

The Nature Conservancy is a private, 501(c)(3) nonprofit organization, whose mission is *to protect the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive*. With operations in more than 30 countries and all 50 states, TNC is the world's largest private conservation organization. Over the past 50 years, TNC has protected more than 115 million acres around the world.

The Nature Conservancy is a science-based organization that takes a non-confrontational approach to conservation, and only works with willing sellers.

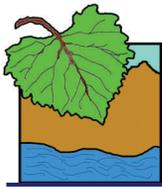
Locally, the LA-Ventura Project is based in Ventura and covers the Santa Clara River watershed, the Santa Susana Mountains and Ormond Beach. For more information, please visit www.nature.org.

Farming on the Edge Exhibit to Open at Santa Paula Oil Museum

The Agricultural and Human Services Academies of Santa Paula Union High School (SPUHS) will open the new exhibit, "**FARMING ON THE EDGE**" with a reception from 1 to 3 PM, Sunday, December 3, 2005, at the City of Santa Paula's California Oil Museum (1001 E. Main St., Santa Paula, 805-933-0076, \$4 Adults, \$3 Seniors, \$1 Children, Free for Members). The awards program begins at 1 PM and refreshments will be served. More than 100 students will exhibit their original work in this annual juried competition. The public is invited to attend and meet the participants in this popular student exhibition. The exhibit is sponsored by the Hansen Trust Agricultural Learning Center and the Gifted and Talented Education Program (GATE) of Santa Paul Union High School.

"Farming on the Edge" presents a student evaluation of the challenges and risks of farming in the Ventura County today, under the guidance of SPUHS History Department Chair Edward Arguelles. Thanks to a grant provided to the museum by the University of California Hansen Trust and co-sponsored by school's Gifted and Talented Education (GATE) Program, the project required students to conduct research on topics ranging from food and labor inspection, the impact that S.O.A.R and land-use ordinances play, the encroachment and quality of water caused by projected development, the effects caused by global markets, and many other sensitive issues, by pouring over state reports, interviewing local farmers, businesses and agencies connected with monitoring agriculture in Ventura County. The project is scheduled to run through mid-February of 2007 and the public is invited to its premier. Phone: 805-933-0076, www.oilmuseum.net





www.santaclarariverparkway.org

The *Santa Clara River Parkway* is a collaborative effort led by the California State Coastal Conservancy. Its primary goal is restoring river and floodplain lands for habitat, flood protection, and recreation. Project partners include The Nature Conservancy's LA-Ventura Project, Friends of the Santa Clara River, The Santa Clara River Trustee Council, private landowners and local governments. The Parkway was established to achieve three goals: to restore hydrologic and geomorphic processes that create and maintain habitat for endangered and threatened species; to provide enhanced flood protection for adjacent private land and public facilities; and to facilitate public access and environmental education, including the creation of a continuous public trail system along the length of the Parkway.

The *Santa Clara River Parkway's* website, www.santaclarariverparkway.org, includes an extensive compilation of documents, reports, studies, news and information pertaining to the Santa Clara River watershed. It contains the *Watershed Knowledge Base*, which is a searchable catalog of science-based information relevant to the management, conservation, and restoration of the Santa Clara River and the surrounding watershed. The knowledge base is essentially a bibliographic system, containing references with links to digital documents and data where available. The knowledge base also catalogs river-related projects within the watershed, with a focus on projects that increase scientific understanding and contribute to management and restoration efforts. Project pages contain links to relevant references in the bibliographic system, providing a "project view" of information in the knowledge base.

Within the *Watershed Knowledge Base* is the *Santa Clara River Parkway Floodplain Restoration Feasibility Study*, designed to assist the California State Coastal Conservancy and its partners with the acquisition, management, and eventual restoration of lands within the lower Santa Clara River corridor. The Feasibility Study will synthesize and extend existing information to provide a basis for management and restoration planning in the Parkway corridor.

Specific elements of the Feasibility Study include (1) a synthesis of existing studies to provide an understanding of physical processes (hydrology and geomorphology), habitat dynamics, and biological resources within the watershed, with a focus on the lower river corridor, (2) an assessment of opportunities and constraints to restoration within the corridor, (3) the development of a set of restoration strategies, for use in site-specific restoration planning efforts within the Parkway area, and, (4) an assessment of restoration feasibility given existing constraints.

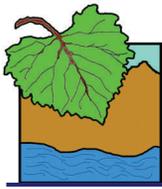
For more information please visit www.santaclarariverparkway.org or contact the Coastal Conservancy project manager, Peter Brand at brand@scc.ca.gov.



The Santa Clara River estuary during the January 2005 floods.
Photo: Coastal Conservancy



Valley Oak in San Francisquito Canyon, Santa Clara
Copyright © 2003 BonTerra Consulting



New Zealand Mud Snails Invade!

By Sabrina Drill

The New Zealand mudsnail is an aquatic invasive species that appeared in Idaho in 1987 and has since spread to every Western state except New Mexico. They were first found in California in the Owens River in the late 1990's. In southern California, Heal the Bay's Malibu Creek Stream Team encountered them at several sites in the Malibu Creek watershed in September 2005. In January 2006, a field crew from the California Department of Fish and Game's Heritage and Wild Trout Program found the snails in Piru Creek in the Santa Clara watershed while searching for another invasive species, the parasite that causes whirling disease.

New Zealand mudsnails reproduce clonally, and each mother snail and her offspring can produce 40 million more snails in a single year. They compete with native invertebrates for food and space, and, as they provide little nutritional value themselves, may have detrimental effects on fish and wildlife by impacting food supplies. The snails are tiny, with adults reaching a length of only 3-5 mm. Juveniles are even smaller, about the size of a grain of sand. They are usually light to dark brown, and may appear black when wet. They have conical shells that have five, or sometimes six whorls or spirals. The shell is dextral, meaning that when held with the point at the top, the opening is on the right side when facing you. They have a wide ranging temperature and salinity tolerance, and can survive for several days out of water under moist conditions.

Taken together, their small size, cryptic coloration, ability to survive out of water, and tendency to stick to things, make them excellent at invading new areas. They can hitch a ride on fishing gear, sampling equipment, shoes (hiding in the treads and under the laces) and clothes, as well as on the fur of dogs and horses. We currently know of no way to get rid of them once they invade a river system.

The best way to manage New Zealand mudsnails and other invasive species is to prevent them from spreading. Stay out of infested streams and do NOT to go from one stream to another in wet gear. If you don't need to go into an infested stream, consider having dedicated clothes that you don't wear anywhere else. Scrub all gear with a stiff brush before you leave an infested site; mudsnails are experts at hiding, so you can't trust a visual inspection. Let all gear dry completely between visits, or freeze gear overnight for at least six hours between uses.

For more information about New Zealand mudsnails and decontamination procedures, visit http://www.dfg.ca.gov/fishing/html/Administration/MudSnail/Mudsnail_0.htm, or <http://www.esg.montana.edu/aim/mollusca/nzms/>. For general information on Aquatic Nuisance Species, see <http://www.anstaskforce.gov/>



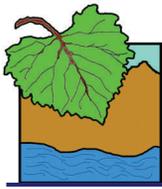
Enlarged image of New Zealand Mud Snail
Photo by Ken W. Davis



NZMSs in relation to the size of a dime
Photo by Ken W. Davis



Thousands of NZMSs can hide on the underside of a rock.



SCR Watershed Water Quality Monitoring Plan

By Valerie Borel

Water quality has long been a major concern throughout the nation. The Santa Clara River is no exception. Water quality monitoring in the watershed has in the past been random and not informative enough to produce comprehensive data that can be properly assessed. In 1991, agencies and organizations involved with the river and its watershed formed a steering committee and decided it was necessary to create a management plan to deal with this issue.

In 2003, the Ventura County Watershed Protection District (VCWPD), with direction from the State Water Resources Control Board (SWRCB), hired AMEC Earth and Environmentals, Inc. (AMEC) to develop a Comprehensive Monitoring Plan for the Santa Clara River. The result is the **Comprehensive Water Quality Monitoring Plan for the Santa Clara River Watershed** (CMP), which was finalized in March, 2006.

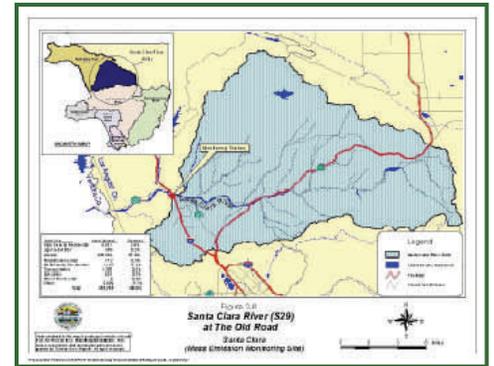
The goals of the plan are to 1) develop baseline conditions for the watershed; 2) have a mechanism to measure improvements or degradations in the water quality; and 3) provide sufficient information to assist the steering committee in making important management decisions regarding the watershed. Recently, I spoke with Michael Lyons of the Regional Water Quality Control Board for a more in-depth explanation of this Plan.

Lyons, who has been with the Board for over twenty years, explained that AMEC compiled and reviewed the existing water quality data and from this, determined data gaps. AMEC then developed and revised a list of suggestions as to monitoring sites and water quality indicators, after receiving comments from stakeholders on the Draft CMP. This forms the Comprehensive Water Quality Monitoring Plan.

"Monitoring currently happens at random sites. These sites need to be better integrated – this was not mandated in the past. Large areas currently are not covered, yet there are other areas with intensive coverage. The CMP attempts to even out the efforts in all hydrologic areas. Thirty-eight station sites have been suggested as monitoring sites, and some are known to be likely sources of pollution," Lyons continued.

I asked Lyons what will be tested for at each site. He replied that the CMP recommendations are: monthly monitoring of water chemistry, temperature, dissolved oxygen, nutrients, fecal coliform, etc. Also, biological indicators and bio-assessments such as toxicity and sediment sampling, will be tested for annually or biannually, as determined necessary. Impaired waters are listed by state TMDLs. Lyons added, "This should be captured and integrated with all the other monitoring going on. There is also a fair amount of volunteer monitoring going on as well."

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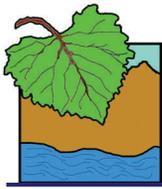
Water Quality Monitoring Site on the Santa Clara River

Map courtesy of L.A. County Dept. Public Works



The lower Santa Clara River near Sespe Creek

Photo by B. Sears



Water Quality Monitoring Plan cont.

(Continued from page 9)

After several months of discussions by the stakeholders, they decided to recommend focusing monitoring on the main stem of the river and then to branch out to the major tributaries.

Lyons explained who decides who does the monitoring at the chosen sites. "The implementation will be done by some of the agencies and/or consulting firms who are currently monitoring sites. Others will be decided by stakeholders as needed. My job is to make sure these things happen." His role regarding the CMP is in an advisory capacity. He also tries to keep the process moving along for the stakeholders.

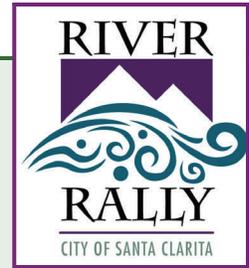
Both Los Angeles County Department of Public Works and Los Angeles County Sanitation District were represented at stakeholder meetings, so the upper watershed has been well-represented in all discussions regarding the CMP, according to Lyons. "Everyone has been receptive; the stakeholders have been working in a cooperative spirit," he added.

The next step will be for the stakeholders to meet again, which Mr. Lyons will encourage them to do. They will discuss the plan and agree how the plan will be paid for and implemented. This could be possibly a six-month process. Monitoring will be done by several agencies, with a lead agency doing the bulk of the monitoring. "In the past, many agencies have had an outside consulting agency do their monitoring; this is a possibility for the new plan as well. The stakeholders should come to a consensus for how to pay for the plan – hopefully without increasing costs, but rather spreading it out evenly. They could possibly modify things or look for other sources of money to pay for it. Possibly the state could pay for some of the costs from the SWAMP (Surface Water Ambient Monitoring Program) program. Often, the state will kick in 10% to offset costs in order to implement the plan," Lyons said.

"The Santa Clara River watershed is farther along with their water quality monitoring plan than many of the others," he asserted. "Of the ten watersheds in the Southern California region, the San Gabriel River Watershed is the farthest along, followed by Calleguas Creek, Malibu Creek, and the SCR Watershed – they are all doing pretty good. This is definitely an encouraging sign."

Thus far, a date has not been set for implementation of the CMP. "The draft state water permit has not yet been released. After this – toward the end of the year or the beginning of next year – talks should begin for implementation," Lyons concluded.

For further information about the CMP, please visit www.vcwatershed.org (CMP (March 2006) Final Reports and Data), or contact **Gerhardt Hubner**, Deputy Director, VCWPD Water and Environmental Resources Division: gerhardt.hubner@ventura.org.



Santa Clara River Rally 2006

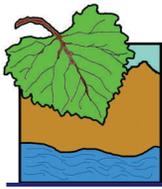
Newhall Creek was bustling with activity last September 30, when 1100 River Rally volunteers collected almost five tons of trash and 1320 pounds of recyclables from the stream behind Newhall Community Center. Newhall Creek is a tributary of the Santa Clara River, which has been the site of the River Rally for the past twelve years.

The River Rally is hosted yearly by the City of Santa Clarita and funded in part through a grant from the Santa Clara River Trustee Council. This environmental event brings the community together and highlights the need for citizens to be stewards of their waterways and natural surroundings.

After the cleanup, participants enjoyed the Environmental Expo of 20-30 vendors, including Santa Clarita Organization for Planning the Environment (SCOPE), Friends of the Santa Clara River, Castaic Lake Water Agency, Energy Coalition, Burrtec, Blue Barrel Waste Management, and the City of Santa Clarita. Placerita Nature Center sponsored a children's art area where kids could plant their own flowers or make their own kites.

Since its inception twelve years ago, 245,000 pounds of trash have been collected from the Santa Clara River and its tributaries. Over 10,000 people – most of them from scouts and other youth organizations – have participated in the river cleanup.

Please watch for further information on next year's River Rally at www.santa-clarita.com.



Condor Update After the Day Fire

By Valerie Borel

The massive Day Fire, which burned a large area of the Santa Clara River watershed, was finally contained on October 2, 2006. I was anxious to find out how the endangered California condor population at Hopper Mountain weathered the fire and the year in general.

I contacted Richard Posey, a US Fish and Wildlife Service wildlife biologist who works with the birds: "We have had a very busy year at Hopper Mountain National Wildlife Refuge. One of our main goals for this year was to fledge a young condor in the wild. We had four nesting attempts this year, and currently have one wild chick remaining. That chick had to be removed from its nest briefly in August to remove an obstruction in its digestive tract. Our partners at the Los Angeles Zoo and Ventura County Search and Rescue were instrumental in helping us return this chick to the wild."

"The Day fire presented another challenge to our efforts. Our staff had to evacuate the refuge for 10 days during the fire, but the condor population, including the chick, was not adversely affected. As a matter of fact, condors have been visiting the burned areas to eat animals killed by the fire."

Posey explained that the condors have been using areas near the Los Angeles metropolitan area for several years that are highly impacted by humans. Their other main goal for this year was to move the condors north and west away from this area to avoid further human-related injuries. They have been successful in getting the condors to use Bitter Creek National Wildlife Refuge in Kern County, and are currently in the process of releasing five young condors at this refuge.

For more information, please visit <http://www.fws.gov/hoppermountain/index.html>.

Get Involved in the Watershed!!

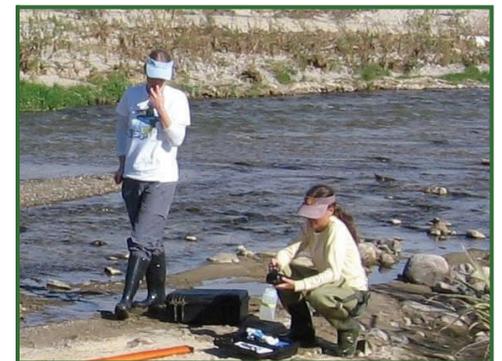
The **Friends of the Santa Clara River Stream Team** is looking for volunteers. The Stream Team performs volunteer water monitoring of the river by sampling at various sites. They measure temperature, pH, dissolved oxygen, turbidity, flow, and several nutrient parameters. The nutrient samples are analyzed by laboratories at the University of California at Santa Barbara. This effort, which is partially funded by the State Water Resources Control Board, is being performed in support of the Santa Clara River Nitrogen TMDL (Total Maximum Daily Load), which is now in effect on the river.

Christina Michael is the Stream Team Coordinator. You can contact her at 661-403-3933 or email her at cjmichael144@hotmail.com. The Stream Team samples the second Saturday of every month, meeting at the Fillmore Carls Jr. parking lot at 9 a.m. Training of any newcomers begins each session; they'll be having a special training session in the near future.



Three-month-old condor chick in its nest on Hopper Mountain NWR

Photo courtesy of Richard M. Posey



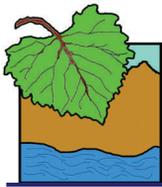
Water quality testing in the Santa Clara River

Photo courtesy of Ron Bottorff



Testing near Santa Clarita

Photo courtesy of Ron Bottorff



Piru Area Plan Update

The Piru Area Plan is an integral part of the Ventura County General Plan, serving as the Land Use Plan for the community of Piru. This Plan governs the distribution, general location, and extent of the uses of the land for housing, business, industry, open space, agriculture, and community facilities. The Piru Area Plan is in the process of being updated to accommodate more housing opportunities and to enhance the early-1900s character of Main Street. Additionally, the update would amend several Piru Area Plan goals, policies and programs.

Dennis Hawkins of the Ventura County Planning Department answered some questions about the update:

1. What are the specific goals of the Piru Area Plan Update?

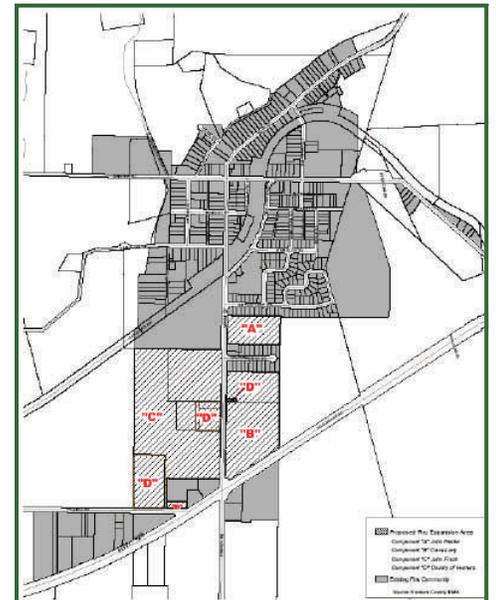
The project is a focused update to the County general plan to fulfill the following objectives:

- ▶ a. *Increase the housing land inventory for unincorporated Ventura County to help meet its long-term regional housing objectives.*
- ▶ b. *Provide for a diversity of housing opportunities within a 62-acre proposed Piru Expansion Area.*
- ▶ c. *Develop a cohesive plan for this area that integrates the new development with the existing Piru Community.*
- ▶ d. *Update the goals, policies and programs of the Piru Area Plan to:*
 - *Ensure that any new Piru Community expansion will be provided with an adequate level of public services and does not exacerbate public facility and service levels currently provided to the Piru Community.*
 - *Ensure the enhancement of Main Street as the primary entrance to the Piru Community*
 - *Encourage the revitalization of the Piru commercial core by permitting mixed use development and allowing a greater range of allowable uses for the Heritage Valley Inn property.*
 - *Ensure that new residential neighborhoods reflect the historic character of the existing Piru Community*
 - *Limit incompatibility between agricultural operations and adjacent new development through the development of adequate buffer areas*
 - *Ensure that the proposed new development will result in*

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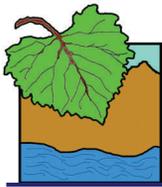
Train depot in Historical Downtown Piru
Photo courtesy of HeritageValley.net



Piru area of interest



Heritage Valley Inn (formerly known as Piru Hotel - County Historical Landmark)



Piru Plan cont.

(Continued from page 12)

a new public park to help meet the recreational needs of the Piru Community

2. **What will the impact of the *Plan Update* be on the population of Piru as well as the number of housing units? How will this affect the community's current quality of life in the area? Will affordable housing be included in the *Plan Update*?**

If approved as requested the population of Piru is expected to increase by 1,442 [85% increase]. The current population is estimated to be 1,703 persons.

The proposed expansion area could add 394 housing units. The existing Piru community has an estimated 502 housing units.

With respect to quality of life, the project will have both positive and negative impacts. Among the negative effects of the project are:

Added air quality impacts, traffic congestion, loss of prime agricultural soils, alteration of mountain and agricultural views, impacts on the local elementary school capacity, and loss of the rural-agricultural entry to the town of Piru.

Positive impacts include: enhanced Main Street, added public parkland, collection of Transportation Demand Management (TDM) funds that would promote ridesharing and public transit, collection of Transit Impact Mitigation Fee (TIMF) funds to improve level of service and safety for Piru area roads, additional funding for an improved student drop-off area at Piru School, funding for enhanced law enforcement services, funding of a Piru School master plan, funding for expansion of Piru School, funding for expansion of the Piru Library and expanded hours of operation, funding for public trails/pathways, and economic support for the Piru downtown commercial center.

With respect to affordable housing, the Board of Supervisors has determined that a portion of the new development in Piru must be affordable to lower income households. Specifically, 15% of

the units must be set aside for low or moderate income households. Additionally, 40% [or 6% of the total number of units] of these affordable units must be made affordable to very low income households.

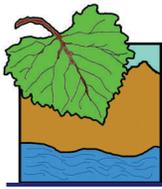
3. **What are some of the major changes included in the *Piru Area Plan Update* and which areas of Piru will be affected most?**

If the project is approved, the entryway to the community will undergo a major change from rural farmland with a few scattered farmhouses to urban residential development and additional public parkland. South Main Street would change from a rural roadway to an urban streetscape with landscaped medians, wide landscaped parkways, bus turnouts, a multi-purpose pathway system, and highly visible pedestrian crosswalks with curb extensions and pedestrian activated warning lights. Additionally, the zoning of the downtown commercial business area of the town would be modified to permit mixed use development.

4. **As a portion of the *Piru Expansion Area* lies within the 100-year floodplain, what steps will be taken to manage flooding in Piru as well as in communities further downstream?**

Applicants are required to obtain a letter of map revision from the Federal Emergency Management Agency (FEMA). The process for obtaining this letter requires the applicants to demonstrate that their properties will be protected from a 100-year flood. For example homes must be elevated at least one foot above the 100-year flood level. Additionally, developers are required to demonstrate to the satisfaction of the Ventura County Watershed Protection District (VCWPD) that the proposed stormwater detention basins will be of sufficient size and appropriate design to retain onsite stormwater runoff from the project and release it slowly (at a rate not to exceed the 10-year storm runoff under the existing undeveloped condition). Additionally, detention basins must be designed and managed to minimize contaminants, trash and sediment from entering into the public storm drain system. Applicants

(Continued on page 14)



Piru Plan cont.

(Continued from page 13)

are further required to demonstrate to the satisfaction of the VCWPD that their projects will not cause erosion damage to downstream drainage ditches.

5. How will the *Plan Update* affect endangered species habitat?

Currently, the proposed development area is being cultivated primarily for agricultural orchards and row crops. The County's biological consultant indicates that the proposed project will not significantly impact wildlife corridors or wetland areas. While no sensitive species were found on site, trees on the property may be used for nesting of raptors and other birds. The Environmental Impact Report (EIR) recommends that any construction during migratory bird/raptor nesting season should be preceded by a survey conducted by a qualified biologist. If nesting raptors or other protected birds are found, construction activities must be kept at least 500 feet away from the nesting site until the young have fledged. Additionally, the EIR recommends that a qualified biologist conduct burrowing owl surveys. If burrowing owls are found, California Department of Fish and Game must be contacted to develop a mitigation plan to protect owls and their nest sites.

6. What impact, if any, will the projects within the *Piru Expansion Area* have on adjacent agricultural lands and how are these issues being addressed?

If the project is approved, an urban residential neighborhood will be created adjacent to existing farm operations. Agricultural operations can impact residential areas due to noise, dust, pesticide over-drift, odors, and other nuisances. Additionally, farmers may be impacted by urban development because of increased vandalism, pilferage, and introduction of pests, disease and weeds from improperly maintained residential landscaping and gardens. To avoid potential land use conflicts the EIR recommends a 150 foot buffer area between the residential and agricultural properties, a vegetative screen and an 8-foot fence. Additionally, homeowners will be provided a copy of the

County's *Right to Farm Ordinance*.

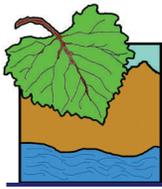
7. How has the community of Piru in general reacted to the *Plan Update*, and how has the community been participating in all aspects of the project?

Piru residents have expressed concern with the location, scope and design of the proposed development and are skeptical that the project can be accommodated without worsening public services and infrastructure. The Piru Neighborhood Council (The Board of Supervisors officially designated public review group for the Piru Area of Interest) has held numerous generally well attended meetings concerning the Piru Area Plan Update. The PNC directed the formation of the Piru Area Plan Update Committee which met with staff 15 times from February 2004 to October 2004. A well-attended EIR scoping meeting was held in Piru in December 2004. In June 2004 a private consultant (Downtown Solutions) was employed to conduct a 3-day community visioning charrette to elicit local community ideas about how the Piru Expansion Area should be developed. The Piru Charrette Vision Plan is included in the EIR as a project alternative.

8. What is the current status of the *Plan Update*?

The Draft EIR has been circulated for public review. A revised draft EIR, reflecting changes made in response to public comments and including several new project alternatives is currently in preparation. An Environmental Report Review Hearing is scheduled for October 18 to consider the adequacy of the EIR. Public hearings before the Planning Commission and the Board of Supervisors will likely be held early next year.

For more information on these Hearings, please visit www.ventura.org/planning/.



Parasitic Wasps to Control Arundo in the Watershed?

By Tom Dudley and Adam Lambert

Riparian woodlands can provide essential wildlife habitat, filter out pollutants that enter waterways, and ameliorate the impacts of flooding and wildfire. The Santa Clara River is one of the few remaining major waterways in southern California that supports well-developed riparian forests, but it is one of the systems most affected by *Arundo donax*, a species of large grass native to India and the Mediterranean region. Also known as giant reed, this bamboo-like weed has invaded native riparian forests from well upstream of Santa Clarita down to the Santa Clara estuary. *Arundo* promotes destructive wildfires, its debris clogs riverbanks and beaches, and it is very poor habitat for native wildlife. It spreads very easily because even small pieces of the stem and roots that break off from an existing plant can re-sprout, generating a whole new stand. Control efforts using combinations of mechanical cutting and herbicide treatments are being undertaken in various places. These can be effective if done right, but are extraordinarily expensive, as well as disruptive to nearby native habitat. The results are often temporary, as the next flood distributes broken pieces downstream and the problem repeats.

Another approach is introducing natural enemies (or herbivores) that feed on the plant in its country of origin. A collaborative program of the USDA Agricultural Research Service's European Biological Control Lab and several universities has identified a variety of organisms – a stem-boring wasp, several species of stem-damaging fly larva, and a root-feeding scale insect - that inflicts substantial damage to stands in Europe. These appear to feed selectively on *Arundo* without posing undue risk to native grasses or agricultural crops, and earlier this year some of these insects were transferred to a quarantine lab in Texas for further testing.

Weed bio-control involves an exhaustive analysis of the environmental and economic impacts of a weed and the risks and benefits of using a biological control agent. Part of this includes examining the insects now found in infested areas. Over the past year we have been studying this with support from the Santa Clara River Trustee Council, and we recently collected a stem-boring wasp in the Santa Clara River. It turns out to be the very same species, *Tetramesa romana*, being tested in the quarantine program. This is an excellent opportunity to learn more about the biology of this insect under real field conditions. The 4 mm long adult wasp lays eggs inside the stem. Larvae feed on the smaller-diameter stems and shoots (see photos), and mature wasps leave the plant through small exit holes to repeat the cycle. The resulting damage fosters secondary infections by micro-organisms, potentially killing the whole stem. The exit holes also

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Dudley and Lambert doing field research on *Tetramesa romana*.

Photo courtesy of Tom Dudley



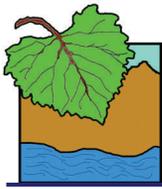
Tetramesa romana boring into *Arundo*.

Photo courtesy of Adam Lambert



Arundo damage due to wasps

Photo courtesy of Tom Dudley



Parasitic Wasps cont.

(Continued from page 15)

make it fairly easy to see whether the insect is present in a stand.

So far, this wasp has only been found Ventura and San Diego Counties. Was this a hitch-hiker when *Arundo* was introduced by Spanish settlers? Its limited distribution suggests a more recent arrival. One might suspect that since this herbivore is present and so is a LOT of *Arundo*, it must not be very effective at controlling the weed. Mass rearing could allow us to introduce many more insects than are naturally present. It may also be possible to enhance the infections by microbes that cause secondary damage. And our best chance for bio-control success may lie in bringing in additional agents, specialized disease-causing organisms, for a one-two (three-four?) punch to knock out this extremely noxious plant.

Because this is an on-going and very active research program, we are interested in hearing from any observers who have seen evidence of this wasp or other organisms causing damage to *Arundo*. Further information on the program is available at our website [<http://rivrlab.msi.ucsb.edu/>], and the rest of our bio-control research. We just received approval for field testing a Eurasian leaf-feeding beetle (*Diorhabda elongata*) in the Santa Clara River for the control of tamarisk/saltcedar (*Tamarix ramosissima*).

Please contact Tom Dudley at tdudley@msi.ucsb.edu or Adam Lambert at lambert@msi.ucsb.edu for more information.

Santa Clara River Bus Tour 2006

Over 80 participants visited the western reaches of the Santa Clara River September 30 on a tour sponsored by Santa Clarita Organization for Planning the Environment (SCOPE), The Sierra Club, and Friends of the Santa Clara River. The Santa Clara River Tour 2006, which followed the city of Santa Clarita's River Rally, was planned by organizers to educate participants on the river's crucial role in the environment, as well as the need to protect its endangered wildlife. The tour also gave residents an opportunity to view some historic locations along the river and understand agricultural issues in Ventura County.

The first stop was a viewing point above the proposed Newhall Ranch project where nearly 21,000 new homes are planned for development north and west of Magic Mountain among mesas, green hills and old oak trees.

The busses made a second stop at Rancho Camulos, situated on one of the original Mexican land grants and founded by Ignacio Del Valle in 1853. It is also the site of the first orange groves in the Santa Clara River Valley. The 1800 acre ranch was also used as a vineyard and cattle ranch.

The bus tour continued past the historic community of Piru, which was founded in 1887 and is still a center of the Santa

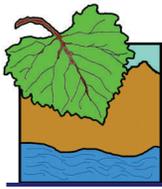
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Several photos showing damage to *Arundo donax* attributed to *Tetramesa romana*.
Photo courtesy of Tom Dudley



Rancho Camulos in the Santa Clara River Valley.
Photo courtesy of the National Parks Service



Bus Tour cont.

(Continued from page 16)

Clara Valley's farming community. It then rolled through downtown Fillmore with its historic city hall, plaza, and train depot.

The last stop of the day was at Hedrick Ranch Nature Area in Santa Paula. Hedrick Ranch is a 223 acre wildlife habitat restoration project which borders the Santa Clara River and farmlands.

The tour ended back at College of the Canyons with a well-informed group regarding the history and issues that surround the Santa Clara River. For information regarding future bus tours, please contact Jennifer Robinson at (213) 387-4287 x210 or jennifer.robinson@sierraclub.org.

Check Out This Info!

If you are planning a project that may alter streams or wetlands, you will likely need to obtain permits. Even activities aimed at improving the quality of wetlands and streams, such as habitat restoration projects, are subject to permits. The permitting process can be complicated and time-consuming. A new guide put out by the Ventura County Planning Division offers help by explaining current laws and providing examples of the permitting processes. This guide - **Wetland Project Permitting Guide: Permitting Stream and Wetland Projects in Ventura County and along the Santa Clara River in Los Angeles County** – is now available online at:

<http://www.vcwatershed.org/documents/SCREMP/FinalPermittingPDF.pdf>, or call (805) 654-2466 to obtain a copy.

The **Guide to Native and Invasive Streamside Plants: Restoring Riparian Habitats in Ventura County & along the Santa Clara River in Los Angeles County** is also now available online: <http://www.vcwatershed.org/documents/SCREMP/RipPltGde5-25-06.pdf>. The guide provides information to help protect, restore, and enhance riparian vegetation in the living stream environment. The photographs in the guide are exceptional in their detail. This publication was also produced by the Ventura County Planning Division.

Shirley Birosik of the Los Angeles Regional Water Quality Control Board notified me that she has finalized the **State of the Watershed Report** previously released as a draft in late spring. It's available on the Regional Board's webpage at http://www.waterboards.ca.gov/losangeles/html/programs/regional_program/ws_santaclara.html.



Wetland Project Permitting Guide

Permitting Stream and Wetland Projects
• In Ventura County
• along the Santa Clara River
in Los Angeles County

Guide to Native and Invasive Streamside Plants



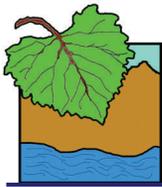
Restoring Riparian Habitats in Ventura County & along the Santa Clara River in Los Angeles County

STATE OF THE WATERSHED - Report on the Water Quality of the Santa Clara Watershed

November 2006

Los Angeles Regional Water Quality Control Board, Los Angeles Region
State Board, Ventura & Santa Clara

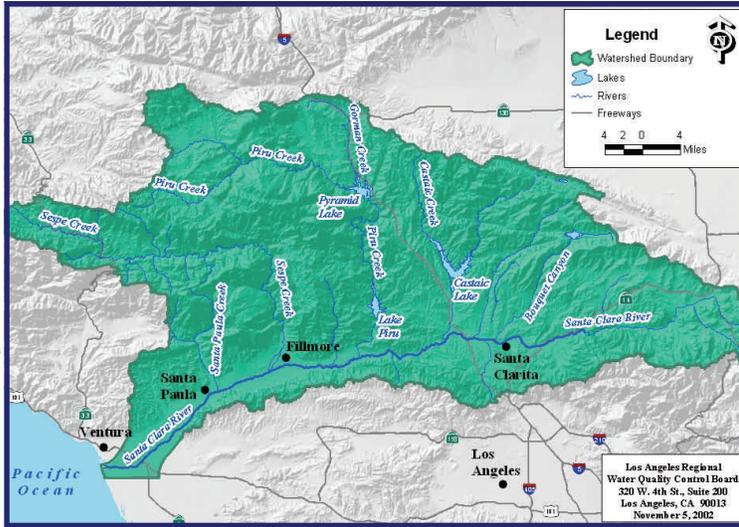




SANTA CLARA RIVER WATERSHED TIMES

Fall 2006

The Santa Clara River Watershed



The Santa Clara River Watershed Times is supported by the Santa Clara River Trustee Council, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game.



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