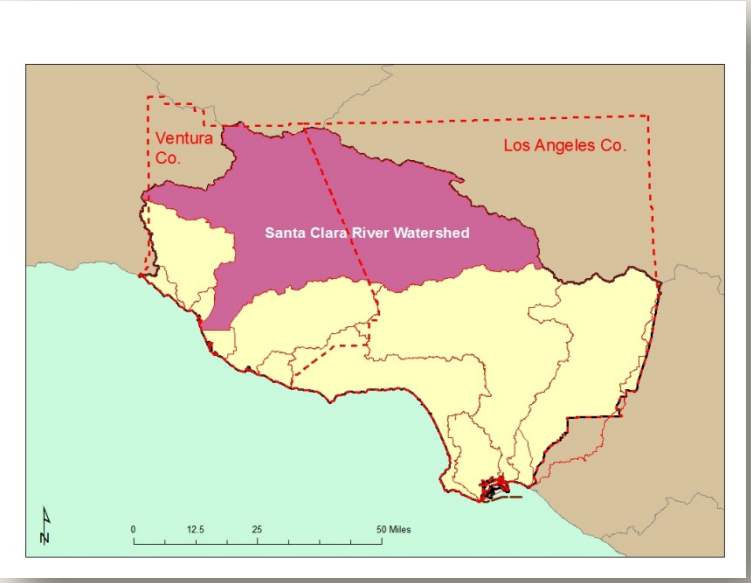
SANTA CLARA RIVER WATERSHED



Watershed Description

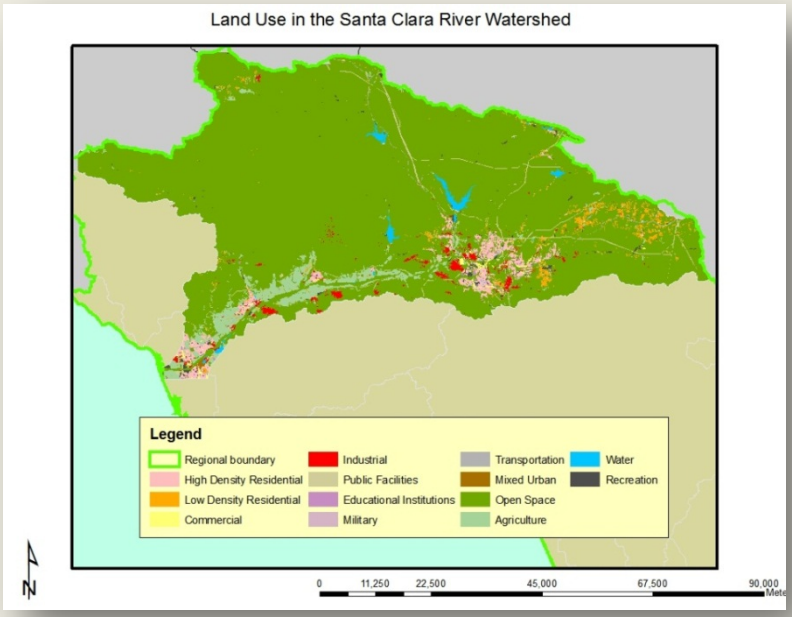
The Santa Clara River is the largest river system in southern California that remains in a relatively natural state and drains about 1,200 square miles; this is a high quality natural resource for much of its approximately 100 miles length. The river originates in the northern slope of the San Gabriel Mountains in Los Angeles County, traverses Ventura County, and flows into the Pacific Ocean halfway between the cities of San Buenaventura and Oxnard.

Extensive patches of high quality riparian habitat are present along the length of the river and its tributaries. The endangered fish, the unarmored stickleback, is resident in the river. One of the largest of the Santa Clara River's tributaries, Sespe Creek, is designated a wild trout stream by the state of California and supports significant spawning and rearing habitat. The Sespe Creek is also designated a wild and scenic river. Piru and Santa Paula Creeks, which are tributaries to the Santa Clara River, also support good habitats for steelhead. In addition, the river serves as an important wildlife corridor. A lagoon exists at the mouth of the river and supports a large variety of wildlife.

Beneficial Uses in watershed:

Estuary	*Above Estuary*
Contact & noncontact water recreation	Contact & noncontact water recreation
Wildlife habitat	Wildlife habitat
Preservation of rare & endangered species	Preservation of rare & endangered species
Migratory habitat	Migratory habitat
Wetlands habitat	Wetlands habitat
Spawning habitat	Municipal supply
Estuarine habitat	Industrial service supply
Marine habitat	Industrial process supply
Navigation	Agricultural supply
Commercial & sportfishing	Groundwater recharge
	Freshwater replenishment
	Warmwater habitat
	Coldwater habitat

Land use is predominately open space with the mainstem of the river residential, agriculture, and some industrial uses as shown in the following figure. Additional information can be found in a "State of the Watershed" report for the Santa Clara River Watershed prepared by Regional Board staff in 2006. The report describes the watershed in more detail and summarizes available water quality data. The report can be downloaded by accessing the Regional Board's website at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/ws_santaclara.shtml.



Water Quality Problems and Issues

Increasing loads of nitrogen and salts in supplies of ground water threaten beneficial uses including irrigation and drinking water. The Oxnard Forebay is a prime groundwater recharge area that is impacted by nitrogen discharges, mainly from densely populated communities using septic systems, and agricultural areas.

Other threats to water quality include increasing development in floodplain areas which has necessitated flood control measures such as channelization that results in increased runoff volumes and velocities, erosion, and loss of habitat. In many of these highly disturbed areas the exotic giant reed (*Arundo donax*) is gaining a foothold.

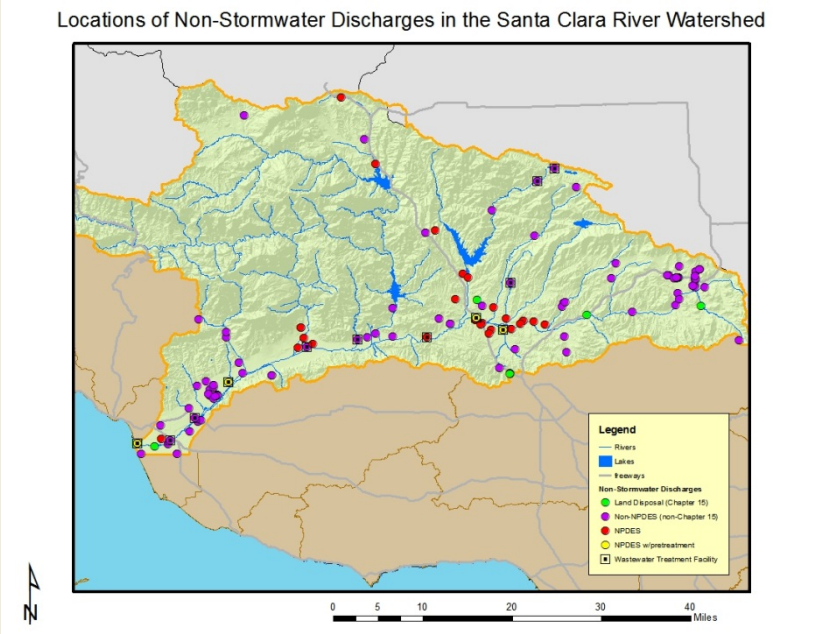
While there are several small POTWs in the Ventura County portion of the watershed (one of which discharges to the estuary) and two larger POTWs in the upper watershed, many of the smaller communities in the watershed remain unsewered. In particular, in the Agua Dulce area of the upper watershed, impacts on drinking water wells from septic tanks are a major concern. The community is undertaking a wellhead protection effort, with oversight by Board staff. Development pressure, particularly in the upper watershed, threatens habitat and the water quality of the river. The effects of septic system use in the Oxnard Forebay area are also of concern.

Permitted discharges:

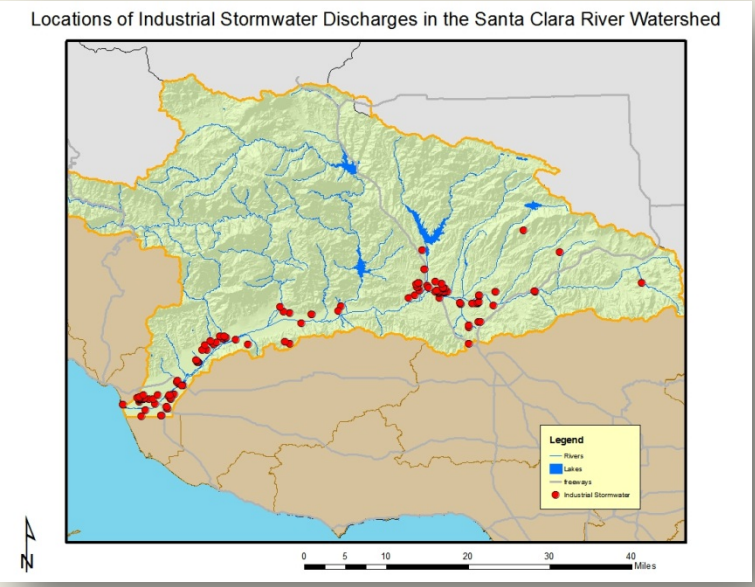
- Thirty NPDES discharges: seven major discharges (one POTW discharging to estuary, one to middle reaches, two into upper watershed)
- 125 dischargers covered under the industrial storm water permit
- 129 dischargers covered under the construction storm water permit
- Coverage by the Ventura Co municipal stormwater permit in lower watershed and the Santa Clara River municipal stormwater enhanced watershed management plan permit group in the upper watershed

The locations of facilities with discharges to surface water or to the ground (other than those covered by general industrial or construction stormwater permits) are shown in the following figure. Major NPDES discharges are from either POTWs with a yearly average flow of over 0.5 MGD, from an industrial source with a yearly average flow of over 0.1 MGD, or are those discharges with lesser flows but with potential acute or adverse environmental impacts to surface waters. Minor NPDES discharges are all other discharges to surface waters that are not categorized as a Major. Minor discharges may be covered by general NPDES permits, which are issued administratively, for those that meet the conditions specified by the particular general permit. Non-Chapter 15 discharges are those to land or groundwater such as commercial septic systems or percolation ponds that are covered by Waste Discharge Requirements, a State permitting activity. Chapter 15 discharges generally relate to land disposal (landfills) under Chapter 15 of the California Code of Regulations, again an exclusively State permitting activity.

Most of the 30 NPDES discharges are to the mainstem of the Santa Clara River while the rest discharge to various tributaries or lakes.



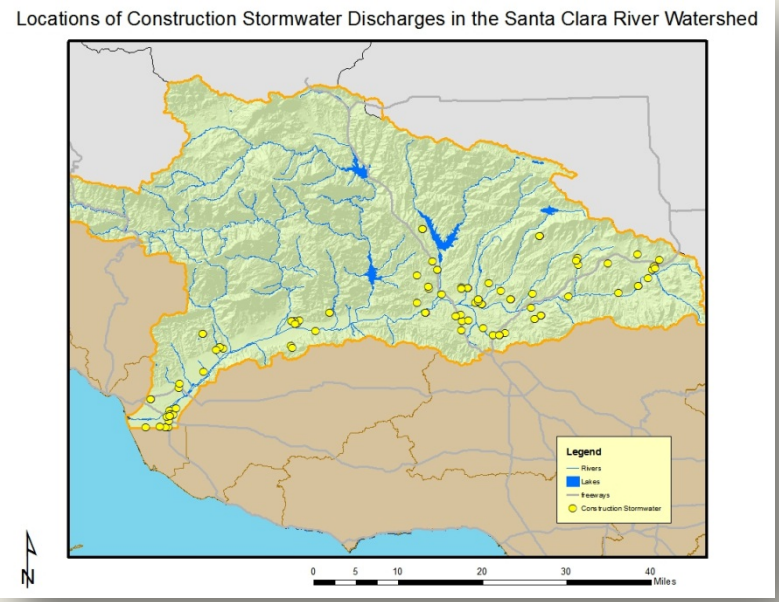
Of the 125 dischargers enrolled under the general industrial storm water permit in the watershed, the largest numbers are located in the cities of Santa Clarita, Santa Paula and Valencia. There is a wide array of businesses represented with wholesale trade-durable goods; trucking and warehousing; stone, clay and glass products; and nonmetallic minerals, except fuels, dominating based on their Standard Industrial Classification (SIC) codes. A similar number of sites are located in the upper and lower watershed. The locations of facilities with discharges covered by the general industrial stormwater permit are shown in the figure below.



There are currently 129 sites enrolled under the general construction storm water permit; the majority of these sites are located in the upper watershed, especially within the cities of Santa Clarita and Valencia. Other clusters of construction occur in the cities of Santa Paula and Fillmore, as well as, near the coast as shown in the on the next page. About one-half of the sites are residential and about two-thirds are five acres or greater in size with four sites being at least 1,000 acres.

Click on the **link** for a complete list of permits in the watershed.

The Santa Clara River Estuary and Beach is on the 2010 303(d) list for coliform while a portion of the river upstream of the estuary is listed for ammonia and coliform. Portions of the river also have chloride impairments. Two small lakes in the watershed are on the 303(d) list for eutrophication, trash, DO, and pH problems. Two major spills of crude oil into the river occurred in the early 1990s although recovery has been helped somewhat by winter flooding events. Natural oil seeps discharge significant amounts of oil into Santa Paula Creek.



Click on the link to obtain a complete list of water quality impairments. A considerable amount of water quality data are available on the California Environmental Data Exchange Network at http://www.ceden.org and on the My Water Quality web portal at http://www.mywaterquality.ca.gov/index.shtml.

Regional Board Actions to Address Impairments

A number of Regional Board programs and actions are in place to address the water quality impairments noted earlier.

Total Maximum Daily Loads (TMDLs) have been developed (as required by the Clean Water Act) for many of the impairments in the watershed. The TMDL is a number that represents the assimilative capacity of a receiving water to absorb a pollutant and is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources plus an allotment for natural background loading, and a margin of safety. TMDLs can be expressed in terms of mass per time (the traditional approach) or in other ways such as toxicity or a percentage reduction or other appropriate measure relating to a water quality objective. A TMDL is implemented by reallocating the total allowable pollution among the different pollutant sources (through the permitting process or other regulatory means) to ensure that the water quality objectives are achieved. TMDLs in effect in all or parts of the watershed include those for salts, nutrients, trash, and bacteria. Additional information on these TMDLs may be found at http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/.

A number of TMDLs contain load allocations assigned to irrigated agriculture. The Regional Board adopted a conditional waiver for discharges from irrigated lands (see http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/waivers/index.shtml) which requires agricultural interests to monitor and implement various best management practices as needed to improve the quality of runoff from irrigated lands. This can be accomplished by growers either individually or through joining a group effort; on the Ventura County side of the watershed they may join the Ventura County Agriculture Irrigated Lands Group (VCAILG). More information on VCAILG may be found on the Farm Bureau of Ventura County's website at http://www.farmbureauvc.com/water_quality.html. Within Los Angeles County, growers are organized into the Nursery Growers Association Los Angeles County Irrigated Lands Group.(NGA).

Storm water (wet weather) and non-storm water (dry weather) discharges from the municipal separate storm sewer systems (MS4), or storm drain system, within Ventura County are addressed by an NPDES Permit issued to the Ventura County Watershed Protection District (as the Principal Permittee), County of

Ventura, and the incorporated cities within. The permit effectively prohibits non-storm discharges into the MS4 and receiving waters with certain exceptions. It also requires that treatment control BMPs be designed to meet certain performance criteria, that each Permittee implement programs and measures to comply with the TMDLs' waste load allocations for the MS4 specified in the permit, and that regular inspections of various types of commercial facilities be undertaken. A monitoring program must also be implemented. More information about this permit may be found at http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml#ventura. Results from water quality monitoring may be found at http://www.vcstormwater.org/apps/stormwater/.

On the Los Angeles County side of the watershed, the municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach (hereinafter referred to separately as Permittees and jointly as the Dischargers) from all Municipal Storm Sewer Systems (MS4 – commonly known as the storm drain system) within Los Angeles County with the exception of Long Beach are subject to waste discharge requirements which were adopted in 2012. Both storm water and non-storm water from the MS4 is subject to the permit requirements. The permit effectively prohibits non-storm discharges into the MS4 and receiving waters with certain exceptions. It also requires that treatment control BMPs be designed to meet certain performance criteria, that each Permittee implement programs and measures to comply with the TMDLs' waste load allocations for the MS4 specified in the permit, and that regular inspections of various types of commercial facilities be undertaken. A monitoring program must also be implemented. Certain provisions of the permit are organized by watershed management area, which is appropriate given the requirements to implement 33 watershed-based TMDLs.

The MS4 Permittees are allowed the flexibility to develop Watershed Management Programs to implement requirements in the permit on a watershed scale through customized strategies, control measures, and BMPs. Participation in a Watershed Management Program is voluntary and allows a Permittee to address the highest watershed priorities. Customized strategies, control measures, and BMPs shall be implemented on a watershed basis, where applicable, through each Permittee's storm water management program and/or collectively by all participating Permittees through a Watershed Management Program (WMP). Permittees may elect to develop an enhanced Watershed Management Program (EWMP). An EWMP is one that comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain all non-storm water runoff and all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others. Permittees have formed one EWMP group within the Los Angeles County side of the Santa Clara River Watershed, the Upper Santa Clara River Watershed Group. More information about this permit may be found at http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml#los_angeles.

In August 1999 the Board adopted a Basin Plan amendment to prohibit septic systems in the Oxnard Forebay. The amendment immediately prohibited the installation of new septic systems or the expansion of existing septic systems on lot sizes of less than five acres. Discharges from septic systems on lot sizes of less than five acres were required to cease by January 1, 2008.

Activities Led by Watershed Stakeholders

Stakeholders within the area under the jurisdiction of the Los Angeles Regional Board have formed several long-range water planning groups and have developed Integrated Regional Water Management (IRWM) Plans under Propositions 50 and 84. These Plans address the future water needs of each IRWM Region in terms of reliability of the water supply, improvement to water quality (including implementing TMDLs), increases in habitat and open space (additionally serving as areas for recharge of stormwater), and replacement of water-related infrastructure as needed. They also propose projects to help implement the Plan's goals; applicants may pursue funding through a variety of sources including grant funding available through bond programs.

Stakeholders on the Los Angeles County side of the Santa Clara River Watershed joined together to develop the **Integrated Regional Water Management (IRWM) Plan for Upper Santa Clara River**. They work closely with the IRWM group in the lower watershed, in Ventura County, the **Watersheds Coalition for Ventura County** which has a Santa Clara River Watershed Committee for IRWM Plan implementation in that watershed. Information on the upper watershed group can be found at http://www.scrwaterplan.org while information specific to the lower watershed planning effort can be found at http://www.watershedscoalition.org .

Due to continued stakeholder concern about discharge of wastewater effluent to the estuary (allowed through an exemption), a series of **estuary studies** have been undertaken as required by the latest NPDES permit for the City of Ventura's Water Reclamation Facility. Copies of reports and other information relevant to these studies can be found at http://www.cityofventura.net/rivers .

A **Santa Clara River Ecosystem Restoration Feasibility Study** is underway in the watershed; study partners are the U.S. Army Corps of Engineers, Los Angeles County Department of Public Works, and the Ventura County Watershed Protection District. The goal of the study is to support comprehensive flood risk management, ecosystem restoration, and other water resources decision-making in the watershed. The work produced thus far can be found at http://www.spl.usace.army.mil/Missions/CivilWorks/ProjectsStudies/SantaClaraRiverWatershedStudy.aspx .

The non-profit group **Friends of the Santa Clara River** has been involved with watershed activities along the length of the river with a focus on the protection, enhancement, and management of the river's resources. More information about this group may be found at their website http://www.FSCR.org.

The **Santa Clarita Organization for Planning the Environment (SCOPE)** has been involved with educating the public about planning and environmental issues, including those involving the river, particularly in the area around the Santa Clarita Valley. More information about this group may be found at their website http://www.scope.org/.

As far back as 1991, it was becoming apparent that the many proposed and conflicting uses of the river were heading for problems of rather large proportions unless the agencies that regulated the river and the various stakeholders along the river agreed on a consensus plan to manage the river and its resources. The **Santa Clara River Enhancement and Management Plan** (SCREMP) was developed as a result. The purpose of the SCREMP is to provide a guidance document for the preservation, enhancement, and sustainability of the physical, biological, and economic resources that occur within the 500-year floodplain limits of the Santa Clara River mainstem that will be of benefit to stakeholders when planning and implementing projects and activities. The SCREMP is available at http://portal.countyofventura.org/portal/page/portal/PUBLIC_WORKS/Watershed_Protection_District/Pr

ograms_and_Projects/Santa%20Clara%20River%20Enhancement%20and%20Management%20Plan%20%28SCREMP%29 .

Related to the SCREMP, Clean Water Act Section 205(j) grant monies were awarded to the Ventura County Watershed Protection District for development of a comprehensive river monitoring plan. While the framework for a comprehensive monitoring program is in place, more work will be needed to finalize the monitoring plan and assign monitoring site responsibilities. And, a U.S. Army Corps of Engineers-sponsored watershed-wide planning effort is underway which will follow up on the intensive effort put into river corridor planning. More information on this activity may be found at http://www.ladpw.org/wmd/scr/docs/SCR%20Pub%20Wkshp%202007%2008%2016%20b.pdf and http://portal.countyofventura.org/portal/page/portal/PUBLIC_WORKS/Watershed_Protection_District/Programs_and_Projects/Santa%20Clara%20River%20Watershed%20Feasibility%20Study .

The Ventura County Watershed Protection District has published two documents that are available on their webpage at http://portal.countyofventura.org/portal/page?_pageid=876,1324291&_dad=portal&_schema=PORTAL. One is a wetland project permitting guide for areas within the county and along the full length of the Santa Clara River. The other is a guide to native and invasive streamside plants.

In 1994, a pipeline over the Santa Clara River ruptured during the Northridge Earthquake and spilled crude oil. Funds from a settlement for natural resources damages are being administered by the Santa Clara River Trustee Council which is made up of representatives from the U.S. Fish and Wildlife Services and California Department of Fish and Game. Some of the funds were allocated to studies of the river's biota that were utilized by the **State Coastal Conservancy**'s Santa Clara River Parkway Restoration Feasibility Study. The results of the feasibility study will be used in restoration of parcels along the river being acquired by the Coastal Conservancy. Information on the Parkway and copies of technical reports available for download may be found at http://www.santaclarariverparkway.org/. Also available at the website is the 2011 historical ecology study which focused on many of the major water bodies in the coastal plain of Ventura County. The study found that the current-day alternating stretches of river with rising or sinking groundwater, and the strong link between the flowing stretches and riparian forests, was a historical pattern as well. The study also highlighted the change from a broad, topographically complex channel with the capacity to accommodate large flows to the narrower, more confined channel and more homogeneous river of today.