



Section Background

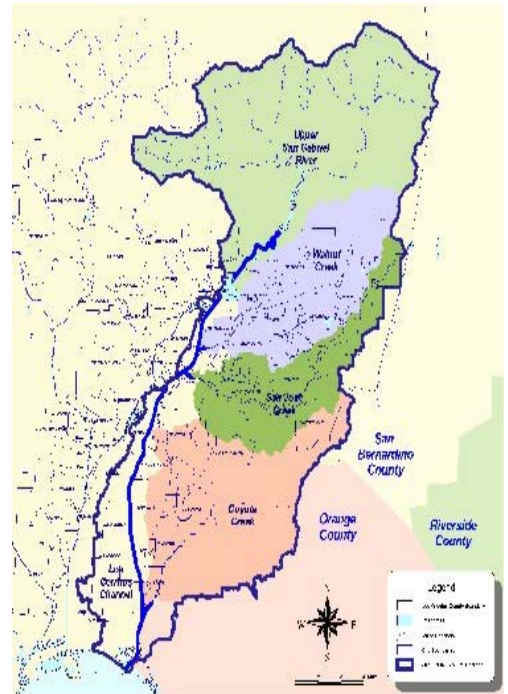
San Gabriel River Watershed

The San Gabriel River Watershed Unit administers the planning and implementation of projects that meet the Division's watershed management objectives in the San Gabriel River Watershed.

San Gabriel River Watershed

The Unit coordinates watershed management efforts in a watershed that encompasses an area of over 640 square miles and a river that extends for 58 miles from the headwaters in the Angeles National Forest to the ocean. The watershed consists of four main sub-watersheds: Coyote Creek, San Jose Creek, Walnut Creek, and the San Gabriel Mountains. Approximately 75 percent of the watershed is highly urbanized with more than four million people living in the valley and coastal areas. The remaining portion lies within the mountain region of the Angeles National Forest. The mountains region is heavily impacted by recreational users.

The urban areas are protected by regional flood control and water conservation facilities built primarily by the Corps and the LACFCD.



Santa Clara River/Antelope Valley Watershed

The Santa Clara River/Antelope Valley Watershed Unit administers the planning and implementation of projects that meet the Division's watershed management objectives in the Santa Clara River and Antelope Valley Watersheds.

Santa Clara River Watershed

The Santa Clara River is one of the few natural river systems remaining in Southern California. The River originates in the Angeles National Forest near the community of Acton and flows from the headwaters westwardly for approximately 80 miles to the Pacific Ocean. Throughout its length, the River crosses through cities, farmland, and undeveloped lands of both the Los

Angeles County and Ventura County. The Los Angeles County portion of the watershed is home to a population of over 250,000 with City of Santa Clarita being home to nearly 160,000.

Prior to the formation of WMD, coordinated watershed planning was limited. The City of Santa Clarita has been very proactive in planning and creating open space and recreational opportunities for the region.

The pace of residential and commercial developments within the Los Angeles County portion of the watershed began to increase again in the past five years compared to the mid-1990s. Most notably the Newhall Ranch development

located near the intersection of the Interstate 5 and Highway 126, is poised to begin soon. All new subdivisions are subject to pre and post construction Best Management Practices, such as construction site management and installation of catch basin insert filters, as required by the NPDES MS4 Permit. Compliance with emerging TMDLs and the need for long-term sustainable potable water supplies will be challenging.



Antelope Valley Watershed

The Antelope Valley Watershed is geographically unique since it does not outlet to the ocean. The LACFCD does not serve the portion of the County north of Avenue S. Funding to construct and maintain drainage and appurtenant structures and to implement many of the NPDES MS4 Permit programs is limited. In 1987, recognizing the mounting need for flood protection and water supply in this developing Valley, the Los Angeles County Board of Supervisors adopted a valleywide Master Drainage Plan to be partially funded from new development fees. This plan identified a backbone network of flood control and water replenishment improvements that consists of: 8 retention basins, 114 miles of channels, 73 miles of storm drains, 6 groundwater recharge areas, and 279

miles of "natural" floodplains in rural areas.

Since 1987, the Cities of Lancaster and Palmdale have adopted their own drainage plans and developer fees, which mostly conform to the County of Los Angeles' Master Plan. The Cities' actions to incorporate County areas and the gradual decrease in new home construction in the early 1990s, has resulted in a severe drop in revenue from developer fees needed to fund construction of new facilities within Los Angeles County unincorporated communities. These fees could be used as seed money for development of a regional drainage plan to address the chronic flooding conditions in the unincorporated County community of Quartz Hill and other areas lacking flood control infrastructure, or to reevaluate the entire Antelope Valley Drainage Master Plan from a watershed management perspective. However, plan implementation would require a source of funding. In 1991, Public Works worked with the cities and the communities to develop a proposal to either include the entire valley within the LACFCD, or form a new Flood Control District. The Valley residents took an advisory vote and the majority voted against the proposition. Later, in 1995, residents in Antelope Valley, including those in Kern County, voted against the formation of the Antelope Valley Storm Water Conservation and Flood Control District.

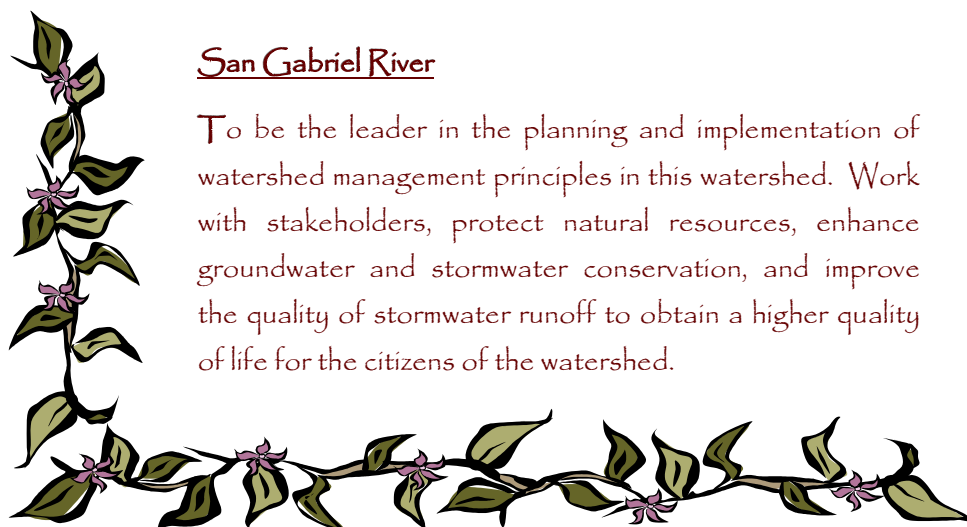


Mission

Santa Clara River/Antelope Valley Watershed

To partner with stakeholders in the watersheds in the pursuit of sustainable growth by balancing socioeconomic development with flood protection and sound habitat and water resources management.





San Gabriel River

To be the leader in the planning and implementation of watershed management principles in this watershed. Work with stakeholders, protect natural resources, enhance groundwater and stormwater conservation, and improve the quality of stormwater runoff to obtain a higher quality of life for the citizens of the watershed.

Accomplishments

San Gabriel River Watershed

The San Gabriel Canyon Planting Event was completed on July 31, 2003, and the Valinda Earth Day was completed on April 28, 2004.

The following are San Gabriel River watershed management projects and plans that are in various stages of planning or implementation:

- San Gabriel River Master Plan
- San Gabriel Canyon Spreading Grounds
- San Gabriel Coastal Spreading Grounds
- Woodland Duck Farm
- Lario Creek/Zone I Ditch Project
- San Gabriel River Discovery Center
- La Mirada Creek Project

- Coyote Creek Watershed Management Plan
- San Gabriel River and Coyote Creek Trash Net Pilot Program

These projects involved extensive outreach to a diverse group of stakeholders such as regulatory agencies, municipalities, utility companies, environmental groups, and other Los Angeles County departments. Each entity provides a different role in identifying both opportunities and constraints during planning and implementation efforts. This San Gabriel River Unit's role has been to lead and collaboratively plan multiobjective projects that seamlessly integrate flood protection, groundwater recharge, water quality, water conservation, and recreation and habitat enhancement elements.

Santa Clara River Watershed

Proposition I3

Arundo donax is a non-native plant that threatens the survival of native flora and has been identified by the LARWQCB as a threat to surface water quality in the watershed. In August 2002, the Ventura County Resource Conservation District (RCD), which also facilitates the Ventura County Arundo Task Force, was

awarded \$1.5 million grant. The Section assisted with the grant application and will continue to assist with project implementation. In addition, the RCD is finalizing a request for proposals to hire an environmental consultant to develop the programmatic California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) documentation and assist with the long-term implementation plan.

Stakeholders Outreach

During the past few years, the Unit has held meaningful discussions with many people who live in the watershed. Meetings with representatives from the City of Santa Clarita, Friends of Santa Clara River, Santa Clarita Organization for Planning the Environment, Sierra Club, as well as Acton, Aqua Dulce, and Castaic Town Councils have shed light on their concerns about the watershed's condition. Overall, these groups are troubled by the ongoing loss of open space and sensitive habitats in the watershed. They also questioned whether the watershed's aquifers will have enough water to support the region's projected population of more than 300,000 by 2020, and felt that the government needs to commit more resources to protect the watershed.

Santa Clara River Enhancement and Management Plan

In 1991, several agencies and river stakeholders initiated a river enhancement and management plan that included participation from Federal, State, and County agencies, farmers, industry, property owners, regulatory agencies, and environmentalists. This stakeholder group exam-

ined the entire length of the Santa Clara River and its 500-year floodplain. Specifically, the study included the following components: river history, flood protection, water resources, biological resources, aggregate resources, cultural resources, and recreation.

The effort culminated into a draft set of river-wide, as well as reach-specific recommendations, designed to foster a sustainable coexistence between man and the river. The final draft of the Santa Clara River Enhancement and Management Plan document was completed in January 2004. The document was circulated in February via the Internet (<http://sdgis.amec.com/scremp/index.htm>) and the public library system.

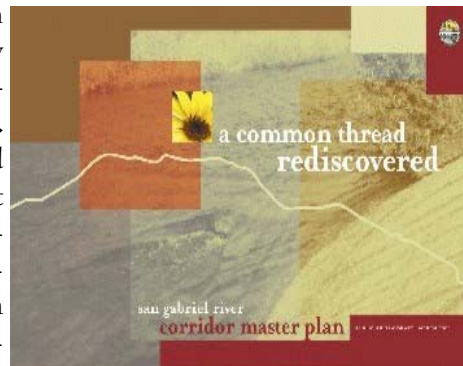


Projects in the San Gabriel River Watershed

San Gabriel River Master Plan

Public Works has been leading the development of the San Gabriel River Corridor Master Plan since September 1999 in an effort to increase and enhance the river's recreation, open space, habitat, flood protection, and water supply opportunities. The Master Plan is a multiobjective planning document in which over 150 stakeholders have met on a regular basis to develop the future vision of the river. These stakeholders consist of representatives from the 19 cities that touch the river, other public regulatory agencies, water districts, and community and environmental groups. This planning effort has produced a consensus-based document that identifies over 134 river enhancement projects, along a 58-mile-long corridor extending from Cogswell Dam in the Angeles Na-

tional Forest to Seal Beach. A programmatic Environmental Impact Report, signage and landscaping guidelines are also being prepared in conjunction with the Master Plan document to assist in the implementation and uniformity of projects within the San Gabriel River corridor. The Master Plan is scheduled to be completed and adopted by the County of Los Angeles Board of Supervisors in late Summer 2004.



The Stakeholders selected five of the 134 projects to study specific opportunities available and prepare conceptual designs to include in the Master Plan. Public Works is the project sponsor or a partnering agency in three of these five concept design studies: San Gabriel Canyon Spreading Grounds, Lario Creek, and the San Gabriel River Discovery Center.

San Gabriel Canyon Spreading Grounds

Once a gravel quarry, the 165-acre site now encompasses two deep spreading basins adjacent to the San Gabriel River. The facility offers a vast open space where the San Gabriel Mountains meet the valley floor. The basins are currently surrounded by bare soils and concrete drainage ditches. WMD is proposing to create a more visually appealing place, that will provide the public passive recreational amenities while incorporating native landscaping to improve the habitat.

The initial phase of this transformation will be the development of a 1.5-acre “Zanjero” park along the northeastern edge of the spreading grounds. The park’s name stems from the Spanish word “Zanja” that was used to describe the intricate network of ditches that were used by farmers throughout the San Gabriel Valley to irrigate their fields and orchards as far back as the mid-1800s.

The park will include scenic open space, native landscaping, and the restoration and enhancement of an existing watercourse. In addition, interpretive signage at the park will serve to educate the public about the important functions that our water conservation facilities provide.



The park will also serve as a stationing area and rest stop for hikers and bicyclists accessing the San Gabriel River Regional Bike Trail, the United States Forest Service Interpretive Center, and the Azusa Canyon River Park. The restoration of the existing watercourse will enable Public Works to convey increased flows to the spreading

basins, while providing an enhanced, aesthetically pleasing water feature, which was requested by many stakeholders. The stakeholders selected the spreading grounds as one of the five concept design studies for the San Gabriel River Master Plan because of its importance as a node linking various other

projects together. The City of Azusa has agreed to long term maintenance of the park elements.

The proposed improvements at this facility will provide an excellent example of how existing water conservation infrastructure can be enhanced to serve other multipurpose objectives, while still carrying out its water supply functions.

Lario Creek

Public Works has partnered with North East Trees, a local, non-profit organization, on the Lario Creek project. This project proposes to transform a man-made water supply ditch into a natural meandering stream course and provide passive/low impact recreational opportunities including trail links, interpretive signage, cultural and environmental education displays, and outdoor classroom settings. The naturalized stream will provide an increased water



conveyance capacity, which will allow for additional recharge opportunities at the Rio Hondo Spreading Grounds. Lario Creek was selected as one of the San Gabriel River Master Plan’s concept design studies. It will also serve as a trail link between the proposed San Gabriel River Discovery Center museum, several existing local hiking and equestrian trails, and the

regional bike trails located along the San Gabriel and the Rio Hondo/Los Angeles Rivers.

San Gabriel River Discovery Center

Public Works has been an active partner in planning the San Gabriel River Discovery Center with its primary sponsors: the Upper San Gabriel Municipal Water District, the San Gabriel and Lower Los Angeles RMC, and the County of Los Angeles Department of Parks and Recreation.

The San Gabriel River Discovery Center is one in a series of education centers planned along the San Gabriel River and one of the five Master Plan concept design studies. The Discovery Center will be located at the existing Whittier Narrows Nature Center. The goal of the Discovery Center is to create an interactive resource to educate its users on local watershed issues. The proposed center will have a 16,000 square foot footprint, comprised of museum space for exhibits and displays, an auditorium, a visitor orientation center, a video theater, a conference room/library, and offices. The Discovery Center will provide a valuable resource to a wide spectrum of users from local student groups that will be able to learn about the natural processes of the water cycle, to

business professionals who will be able to hold conferences in this central San Gabriel River location. The contract for planning and architectural design services is anticipated to be awarded in July 2004, with unveiling of the completed Discovery Center scheduled for early 2008.



La Mirada Creek Project

The purpose of the La Mirada Creek Project is to provide flood mitigation along with multiuse benefits to the unimproved section of La Mirada Creek, located south of La Mirada Creek Park and north of Imperial Highway, in the City of La Mirada. This portion of the natural creek is unlined and has a history of flooding the adjacent residences up to their front door steps. To eliminate this flooding, the project will add a parallel drain while incorporating proposed multiuse benefits such as:

- 1) Linking the project to existing bike, walking, and equestrian trails.
- 2) Enhancing existing habitat along the riparian corridor.
- 3) Constructing a wetland "detention basin".



- 4) Incorporating water quality improvement elements.

The San Gabriel River Watershed Unit is in the process of preparing a project concept report for this project with technical assistance from Design Division. This concept is being developed in conjunction with the City of La Mirada and the RMC.

Projects in the Santa Clara River Watershed

Nutrient TMDL

The Water Quality Section participated in the Nutrient TMDL development process. The Nutrient TMDL was adopted by the LARWQCB in Fall 2003 and it is expected that the US EPA will approve it in late 2004. The County of Los Angeles Sanitation District and wa-

ter treatment facilities will take the lead in addressing the Nutrient TMDL requirements.

The Chloride TMDL for the Santa Clara River is still being developed by the LARWQCB.

Aqua Dulce Watershed Management Plan

Portions of Aqua Dulce are subject to chronic flooding conditions. The area relies on groundwater for its potable water supply. In recent years, demand for groundwater has risen while its quality has been questioned. Hence, working with residents of Aqua Dulce, the Santa Clara River/Antelope Valley Watershed Unit's goal is to identify feasible solutions to the area's flooding, water supply, and water quality problems using watershed management techniques. An example of such a solution would be a regional retention basin designed for the dual purpose of flood mitigation and groundwater recharge.



Mint Canyon Watershed Alternative Feasibility Study

Mint Canyon is subject to flooding and is identified as Zone A flood hazard area in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). A feasibility study of the 21,000-acre subwatershed (tributary to the Santa Clara River) has been completed to identify multipurpose solutions to mitigate



the existing flood hazard, thereby eliminating the need for property owners in the area from having to purchase flood insurance.

The feasibility of recharging the groundwater was also a component of this effort. In addition, the LARWCB has identified Mint Canyon as being impaired for nutrients, so the study will include an investigation of ways to improve water quality.

Corps Feasibility Study

Public Works has negotiated an agreement with the Corps and the Ventura County Watershed Protection District (VCWPD) to conduct a joint Santa Clara River Watershed Feasibility Study. The study will model the hydrology, hydraulics, and sediment transport characteristics of the watershed. The goal of the study is to identify flood protection, water conservation, water quality enhancement, and environmental restoration

problems and opportunities. It is anticipated that the Corps will determine there is Federal interest in some of the study's proposed projects and contribute funds for construction. The cost of the feasibility study is estimated at \$8.1 million; Public Works would contribute \$1.7 million; the Corps and VCWPD would contribute \$4.1 and \$2.3 million, respectively. The study is projected to be completed in three to four years.

Lessons Learned

- Capture stakeholder visions and ideas. Be sure to record issues and concerns expressed during facilitated stakeholder meetings.
- Federal and State budgets can fluctuate and impact project schedules and scopes. Consider adding flexibility to projects when outside funding sources are involved.
- Grant opportunities—There are various grant funding opportunities available. Be sure to coordinate grant applications with internal stakeholders.

Future

The San Gabriel River/Santa Clara River/Antelope Valley Watershed Section will continue to pursue its missions by conducting studies and preparing project concepts in coordination with internal and external stakeholders. Some of the Section's goals include:

- Completing the San Gabriel River Master Plan in summer 2004.
- Taking an active role in the Coyote Creek Watershed Management Plan.
- Complying with upcoming TMDL requirements
- Investigating potential San Gabriel River Master Plan projects for implementation.
- Guiding stakeholders as they implement San Gabriel River Master Plan projects.
- Conducting Santa Clara River Watershed Feasibility Study in partnership with the Corps and the Ventura County Watershed Protection District.
- Involving the development community in long-term watershed management.
- Conducting an assessment of watershed management needs in the Antelope Valley including the Quartz

Hill Drainage area.

- Seek out stakeholder partnerships with the goal of optimizing watershed visions and projects and maximizing financial resources available for implementation.
- Observe sound fiscal practices as the Section implements project based budgeting.

