IV. LOS ANGLES COUNTY GAP REPORT[1]

Executive Summary

Overall Results of Survey

The Los Angeles County WRP staff completed eight watershed management plan surveys: one for each of the five coastal Los Angeles County watersheds (San Gabriel River, Los Angeles River, Dominguez, Santa Monica Bay, and Santa Clara River) and one for each of three major sub-watersheds within the Santa Monica Bay watershed (Ballona Creek, Malibu Creek, and Topanga Creek). The surveys identified 15 federal, state and local government agencies and non-profit organizations engaged in watershed planning. These agencies and organizations have produced, or are in the process of developing, 18 watershed and sub-watershed management plans.

County-wide Perspective on Gaps

As extensive as watershed management planning appears to be from the surveys, a number of critical planning gaps remain throughout the watersheds and for a variety of reasons. Protracted acquisition negotiations, absence of cohesive stakeholder groups, stakeholder "burn out", multiple jurisdictions (including cross-county), limited resources, lack of a lead agency involvement, and powerful development interests all contribute to planning gaps. As a consequence, the last two significant coastal wetlands in the county (Ballona & Los Cerritos) remain unprotected; the San Fernando Valley sub-watersheds and San Gabriel foothill streams of the Los Angeles River watershed are unattended to; and the floodplain of the last natural river in southern California (Santa Clara) is subject to intense development pressures. All watersheds face significant challenges and each requires specific consideration and action.

Priorities for Watershed Coordinator Action

Strong local watershed planning models exist in the Los Angeles County Watershed Management Division's (WMD) planning efforts in both the Dominguez and Ballona Creek watersheds, and in the California Resources Agency's (RMC/SMMC) *Common Ground* document. The WMD is responsible for all watersheds in Los Angeles County, and four of the Resources Agency's seven conservancies (Coastal, Santa Monica Mountains, Rivers and Mountains, Baldwin Hills) cover substantial portions of LA's coastal watersheds. Moreover, through Prop 13, the Los Angeles Regional Water Quality Control Board is currently sponsoring sub-watershed management planning initiatives throughout LA and Ventura counties. As a first step then, the WRP Watershed Coordinator will work with these organizations and initiatives, to strengthen and extend their planning activities, as appropriate, within the five coastal watersheds.

The Los Angeles County WRP staff has prioritized and will attend to identified gaps in the following order, with some specific temporal variations:

- Santa Clara River: stakeholder group development; inter-county planning.
- Lower San Gabriel River (Los Cerritos Wetlands and Channel, Colorado Lagoon, Alamitos Bay): stakeholder group development; watershed planning.

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[1] Prepared by Rick Harter, Executive Director, Los Angeles-San Gabriel Rivers Watershed Council and Mary Loquvam, Watershed Coordinator, Los Angeles-San Gabriel Rivers Watershed Council /Los Angeles County WRP Task Force.

Funding for this project has been provided in full or part through a contract with the State Water Resources Control board (SWRCB) pursuant to the Costa-Machado Water Act of 2000 (Proposition 13) and any amendments thereto for the implementation of California's Nonpoint Source Pollution Control Program. The contents of this document do not necessarily reflect the views and policies of the SWRCB, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

- Dominguez: coordination with existing stakeholder group; incorporation of wetlands into planning framework; restoration project development.
- Los Angeles River: stakeholder group development and planning for San Fernando Valley, San Gabriel foothill, and Rio Hondo sub-watersheds; project development and coordination of projects along main stem.
- Santa Monica Bay: support for planning and restoration of Ballona Wetlands; support of stakeholder activities and project development along coastal areas.

Los Angeles County Overview

Setting

Los Angeles County encompasses slightly over 4,000 square miles; including the off-shore islands of San Clemente and Santa Catalina. It has the largest population (over 9.5 million in the 2000 Census) of any county in the United States, and accounts for almost 30% of California's total citizenry. Over two-thirds of the County territory lies within five coastal watersheds draining to the Pacific Ocean, with the remaining northern portion (Antelope Valley) in the high desert forming an inland sink.

Of the coastal watersheds, only the smallest (Dominguez) is entirely located within county boundaries. Relatively small portions of the western Los Angeles River and upper Santa Monica Bay watersheds lie within Ventura County. The San Gabriel River watershed extends eastward into Orange County and a small bit into San Bernardino County. The Santa Clara River watershed, however, is almost bifurcated between Los Angeles and Ventura counties; with the upper watershed (640 sq. mi.) in LA County, including six significant sub-drainages, and the lower watershed (560 sq. mi.) in Ventura County, including the flood basin and river mouth.

Other cross-jurisdictional situations exist in a minor way, with a small portion of the upper Calleguas Creek watershed in western LA County and a small portion of the Santa Ana River watershed in eastern LA County.

Watershed Organizations

Watershed planning efforts, while organized on a watershed basis, often involve entities that are not solely dedicated to one particular watershed area. This is usually related to jurisdictional realities and programmatic requirements. The purpose of this section is to summarize organizations that are importantly involved in watershed management. Not all of these are referenced in watershed descriptions that follow, and thus understanding the overall context of watershed activity is useful at the outset. These descriptions, however, exclude relevant stakeholders - such as water supply and wastewater treatment agencies, or organizations dealing with water quality regulations (NPDES Permits, TMDLs, etc) – that may in the course of their activities be producing resource management plans pertinent to watershed dynamics, but which are not comprehensive in their watershed scope nor necessarily ecological in their focus.

Los Angeles County Department of Public Works

One organization has primary watershed management purview over the entire county, and that is the County Department of Public Works (LACDPW), Watershed Management Division (see <www.ladpw.org/wmd>). The WMD has been in existence since 2000, being formed from the earlier Planning Division and incorporating stormwater quality programs (NPDES, etc). The LACDPW itself was formed in 1985 from the merger of the County Road Department and the County Flood Control District. Within its flood control responsibilities, the department operates and maintains 15 major dams, about 450 miles of open channel, and almost 2,500 miles of underground storm drains. The department is also responsible for infiltrating an annual average of 220,000 acre-feet of local storm water runoff to 27 groundwater recharge areas or spreading grounds, consisting of unlined river bottoms and spreading basins and pits, and for operating and maintaining three seawater barriers. These barriers inject treated imported water into freshwater aquifers along coastal areas to prevent the intrusion of salt water inland. The aquifers protected by the barriers supply nearly 20 percent of the water used in Los Angeles County.

United States Army Corps of Engineers
The Los Angeles District of the USACE covers the entire Southern California Wetlands Recovery Project area, as well as most of Arizona and southern Nevada. The Corps has been involved in several specific watershed planning initiatives within LA County on a collaborative basis with the LACDPW. The USACE was responsible for constructing the Los Angeles County Drainage Area (LACDA) Project, which was completed in December 2001 and added rampart walls to the LA River levee system, as well as 22 miles of bikeway trail along the lower LA River. The USACE is responsible for levee system integrity; and although it does not directly manage the channelized system, it has regulatory authority within the channel. The USACE also has direct authority over seven flood control dams in the LACDA system, four of which (Hansen and Sepulveda on the LA River; Santa Fe and Whittier on the San Gabriel River) are major recreational facilities. For current coastal resources projects within the WRP area, see <www.spl.usace.army.mil/pd/coastal/mdr_web.html>.

Federal Agencies – National Park Service, U.S. Forest Service, Fish & Wildlife Service
The National Park Service (NPS) administers the Santa Monica Mountains National Recreation Area, which covers all of the Santa Monica Mountains, both in LA and Ventura counties. It therefore encompasses all Santa Monica Bay watersheds north and west of Ballona, as well as the Ventura Coastal Streams hydrologic unit. Some areas within its jurisdiction are owned by the NPS, but most areas are otherwise publicly or privately held. For details, see <www.nps.gov/samo>. The NPS also administers the Rivers, Trails & Conservation Assistance Program (RTCA) and there is a local southern California office in the Los Angeles River Center & Gardens. This group has been actively involved in several of the existing watershed planning efforts, including the Arroyo Seco and the San Gabriel River. For details about the program, see <www.ncrc.nps.gov/programs/rtca>.

The US Forest Service (USFS) has jurisdiction over four National Forests in southern California (see <www.r5.fs.fed.us>). The upper watersheds of the LA River, San Gabriel River, and portions of the Santa Clara River are in the Angeles NF, with portions of the Santa Clara watershed also in Los Padres NF. When these forest jurisdictions were established, it was with the express purpose of protecting watershed areas.

The Fish and Wildlife Service (USFWS) is responsible for administering the Endangered Species Act (ESA), as well as National Wildlife Refuges throughout the nation. The Ventura office of the Pacific Region has been actively involved in the Santa Clara River due to presence of federally listed species. Their involvement provides some level of holistic perspective on the upper and lower Santa Clara watershed.

State Water Resources Control Board - Los Angeles Regional Board
Regional Board #4 is responsible for both Los Angeles and Ventura counties and, as such, they also provide some holistic perspective on the Santa Clara watershed. The LA Regional Board also has a long history of nurturing a watershed perspective in many forums, including habitat restoration as well as development and implementation of TMDLs. For an overview of programs, see <www.swrcb.ca.gov/rb4>.

California Resources Agency - State Conservancies (SCC, RMC, SMMC), State Parks
Under the incumbent Secretary, the Resources Agency has been promulgating watershed perspectives; most recently evident in the work of the Joint Task Force on California Watershed Management (see <www.resources.ca.gov/watershedtaskforce>). Among the ten projects statewide that were studied for the AB-2117 report, was the Arroyo Seco watershed activities.

Conservancies bring an ecological perspective to watershed work; for various links, see <www.resources.ca.gov/conservancies.html>. The State Coastal Conservancy (SCC) covers all coastal watersheds, although has an arrangement to restrict its activities to the Coastal Zone within the SMMC jurisdictional area. The Santa Monica Mountains Conservancy (SMMC) covers all of the Santa Monica Mountains, as well as the Simi Hills and Santa Susanna Mountains, which form the 'Rim of the (San Fernando) Valley'. However, its jurisdiction in the LA River watershed encompasses the Upper LA River only, ending at City of Vernon. Below that is the Lower LA River, which is jurisdiction of the Rivers & Mountains Conservancy (RMC). The RMC is one of the two most recently formed conservancies (the

other being Baldwin Hills in the Ballona watershed), and primarily covers the San Gabriel River watershed, although its boundaries include all of the San Gabriel Mountains, and therefore it also includes some portions of sub-watersheds in the upper Santa Clara River watershed.

The California Department of Parks and Recreation operates many units in the Santa Monica Mountains area. There are five State Parks along the Malibu Coast within LA County (Will Rogers, Topanga, Malibu Creek, Point Dume, Leo Carrillo) and one other in Ventura County (Pt. Mugu). There are also two - or four, depending upon the accounting - State Beaches (Malibu Lagoon and Meyer Memorial - which is a collection of three small beaches: El Matador, La Piedra, El Pescador) along the Malibu Coast, plus two others in the Santa Monica Bay watershed (Santa Monica and Dockweiler). For details about all, see <www.parks.ca.gov/default.asp?page_id=681>. DPR has also undertaken an Urban Parks Initiative under the Davis administration, which has its first projects in the LA River watershed. In this context, DPR is not involved in watershed planning, per se, but is undertaking critical large riverside projects that could have restoration components, depending upon outcome of upcoming facility planning process.

Environmental Organizations – Audubon Society, Sierra Club, TNC, TPL
A number of environmental organizations are actively involved in watershed work in various forms, although mostly not focused on comprehensive watershed planning.

The South Bay Chapter of the Audubon Society has been very actively involved in planning for enhancement of Machado Lake in the Dominguez watershed, primarily through the efforts of a volunteer leader who is retired and remains engaged in environmental causes. The professionally-staffed Los Angeles Audubon Center has developed plans for an educational facility and activity center in Debs Park, including riparian restoration along the Arroyo Seco. The work of this Center is intended as a demonstration project for other urban initiatives. The professionally-staffed California State office in San Francisco has recently released the draft California Important Bird Area (IBA) Report, which includes detail on the Greater Los Angeles Area, as well as other areas within the WRP; see <www.audubon-ca.org/IBA.htm>.

The Sierra Club Angeles Chapter Conservation Committee is very active in San Gabriel River watershed organizational activities, and has established a SG River Task Force, led by another retired activist. The Committee has also listed priorities for the Los Angeles River, the Santa Clara River, the Ports of LA/LB, the Santa Monica Mountains, and long-standing involvement with Ballona Creek; see <www.angeles.sierraclub.org/home.html>. Now that the leader of Wetlands Action Network has been elected to the national Board of Directors, it is possible that even more attention will be brought to bear on wetland resource issues. The Sierra Club's California office also administers the 'Great Coastal Places Campaign'. See <www.sierraclub.org/ca/coasts>.

The Nature Conservancy (TNC), in collaboration with the USACE, has just announced a partnership called the Sustainable Rivers Project. This effort is currently focused on seven rivers in the eastern states and the Midwest, although one is in Arizona, which is under jurisdiction of the Los Angeles District; see <www.nature.org/success/dams.html>. TNC is locally involved in the Santa Clara River watershed.

The Trust for Public Land (TPL) has a number of programs directly related to river restoration work, in addition to generally being involved in many of the WRP Work Plan projects and other property acquisitions critical to habitat restoration projects. For a description of their LA River Greenway Program, see <www.tpl.org/tier3_cdl.cfm?content_item_id=5309&folder_id=1525>. The Greenprinting Los Angeles Initiative is related to the Foothills Strategy that we are proposing to work on. For a description, see <www.tpl.org/tier2_rp2.cfm?folder_id=1925>.

Non-Profit & Other Watershed Organizations:

ASF, LASGRWC, NET, RCDSMM, SGMRC, TreePeople
There are actually only a few organizations dedicated to watershed work and involved in watershed planning. These are identified in the individual watershed discussions below. Other organizations are involved in implementation or outreach roles. These include TreePeople's T.R.E.E.S. Project

<www.treepeople.org/trees>, a component of which is their involvement in the Sun Valley watershed project.

"Friends", etc - FoLAR, FoSGR, Heal the Bay
All three of these activist organizations have developed or are in the process of developing Citizen Monitoring Programs, and all sponsor volunteer clean-up activities, etc. For program activities, see <www.folar.org> (although RiverWatch is not yet referenced on the site); <www.sangabrielriver.org/index.htm> (here also, the monitoring program is not fully developed as yet); and <www.healthebay.org/streamteamhome.asp> which has a very strong monitoring and mapping program in Malibu Creek.

Watershed Plans and Planning Activities

LACDPW – Watershed Management Division
Building upon the Los Angeles River Master Plan efforts in the mid-1990s, the County's WMD is sponsoring Master Plans (its preferred term for watershed management plans) for the San Gabriel River and the Dominguez watershed. It is also involved in Ballona Creek and Malibu Creek within the Santa Monica Bay watershed, and in the Santa Clara River floodplain plan.

US Army Corps of Engineers
USACE planning projects follow a standard series of steps and progressions, from Reconnaissance Study to Feasibility Study to project identification and implementation. A Feasibility Study has been completed for the LA and San Gabriel Rivers in LA County, and six potential demonstration projects have been identified. There has been a programmatic request for USACE planning involvement in the Arroyo Seco sub-watershed of the LA River. A Reconnaissance Study has been completed for the Coyote/Carbon Creek sub-watershed of the San Gabriel River in Orange County. This is progressing to the Feasibility Study phase. The USACE has expressed interest in conducting a Reconnaissance/Feasibility Study of the Santa Clara River.

SWRCB Prop 13 Watershed Management Plans
Last year's Round I of the Prop 13 project solicitations under the SWRCB's Watershed Account focused on watershed management planning, and seven grants were made to LA County sub-watersheds. Some of these, such as Arroyo Seco and Coyote/Carbon Creek, are matching funds for larger efforts. Others, such as Rio Hondo and Compton Creek, represent the total resources currently available for planning activities. The remainder (Dominguez, Ballona and Upper San Gabriel) may be supplemented with other project funds or sponsorship, such as through the LACDPW-WMD.

Facility and Agency Management Plans
The LACDA Project produced voluminous hydrologic data and other environmental information within about ten years of feasibility studies in the mid-1980s to mid-1990s, along with NEPA documentation. An outgrowth of this work was the watershed study described in the LA River and SG River sections. The USACE also has adopted Master Plans and associated environmental documentation for the four major dam areas that have multi-use function.

The USDA Forest Service is undertaking a *Forest Management Plan* for four Southern California forest areas, which deals comprehensively with the Angeles National Forest, along with San Bernardino NF and Cleveland NF to the east and southeast, and Los Padres NF to the west and northwest. This planning effort was required by a Settlement Agreement with the Center for Biological Diversity. For more information, see <www.r5.fs.fed.us/sccs>.

The National Park Service published its Draft General Management Plan & EIS for the Santa Monica Mountains National Recreation Area in February 2001; its current status is unknown.

California State Parks is required to develop General Plans for each of its facilities. The planning process is just beginning for urban parks along the LA River. Status of plans for the Santa Monica Mountains parks and beaches is unknown.

Planning / Management Gaps
Focus in this discussion is on cross-jurisdictional issues, rather than a summary of individual watershed discussions which can be found in sections below.

Santa Clara River Watershed
The most significant watershed planning issue relates to the Santa Clara River because of its unique situation of being almost equally divided between two counties (Los Angeles, upper; Ventura, lower), where both county authorities (former Flood Control Districts; both now Watershed Management) are most responsible for watershed planning activities within their respective jurisdictions. While there is a long-standing stakeholder group, and many parties of interest, it will take a focused effort to bring a watershed-wide planning process into being.

San Gabriel Estuary
The mouth of the San Gabriel River borders two municipalities (Long Beach and Seal Beach) in two separate counties (Los Angeles and Orange, respectively). The potential for comprehensive planning exists in the context of RMC activities and USACE studies; and the potential for re-engineering the channel system in this area makes for very exciting restoration opportunities. Here also, it will take a focused effort to foster a new perspective on otherwise conventional approaches.

Santa Monica Mountain Creeks
The Santa Monica Mountains straddle the LA/Ventura County line west of the San Fernando Valley, including the western end where the Ventura Coastal Streams hydrologic unit lies completely in Ventura County even though geologically and hydrologically it is more akin to its eastern neighbors than to the Calleguas watershed on its western flank. A large number of small, steeply graded watersheds line the coast within a patchwork of overlapping jurisdictions. Since some of these creeks are suitable for steelhead habitat, while others may not be, it would be pertinent to consider developing a comprehensive process – again, across county lines – for watershed planning.

Watershed Management Priorities
The following is our County-wide summary of priorities, in relative order of prioritization. Detailed descriptions are given below in individual watershed discussions. Actual timing of activity is related to opportunity factors. For example, work has already begun on the South Gate project and the Foothills Strategy. Substantial preparation and lead time will be required for the Santa Clara effort. The Dominguez WMP effort is underway, while the Rio Hondo WMP effort will not begin in earnest until later this year. The next area of focus is likely to be on the San Pedro Bay area, including Dominguez and Los Cerritos (San Gabriel Estuary) wetland resources. Completion of many, if not most, of these initiatives will require substantially longer than the grant period, which now has only twelve months remaining.

- Santa Clara River Organization / Planning
- San Gabriel Estuary Organization / Planning
- Dominguez Wetland Resources
- South Gate Riparian Restoration Project
- Foothills Strategy
- Rio Hondo WMP Development
- Dominguez WMP Development
- San Fernando Valley Watersheds
- Sub-Watershed WMP Tracking
- Santa Monica Mountain Creeks
- South Bay Bluffs

San Gabriel River Watershed

Setting

The San Gabriel River Watershed drains approximately 635 square miles in southeastern Los Angeles County and western Orange County. The upper areas of the watershed remain primarily open space in mountainous terrain, while the middle and lower areas in the foothills and on the plain are dominated by urban development. The entire Upper San Gabriel Sub-watershed is within the Angeles National Forest (ANF). Major sub-watersheds below San Gabriel Canyon are Walnut Creek, San Jose Creek, and Coyote/Carbon Creeks; all draining from the east side. Los Cerritos Channel and Colorado Lagoon comprise the heart of a sub-watershed to the west which drains into Alamitos Bay, adjacent to the San Gabriel River mouth. The total length of the system from Vincent Gulch, below the Angeles Crest Highway, to river mouth in Seal Beach is 73 miles. The main stem below San Gabriel Reservoir is 58 miles long.

The river is highly engineered and managed for flood protection and water conservation (groundwater recharge) functions. Approximately 10 miles of the mainstem have levees and concrete bottoms; more than 30 miles have levees and soft bottoms. . LA County Dept of Public Works (LADPW) operates three detention reservoirs within the ANF and is responsible for all channel operations. Two large flood control structures - Santa Fe Dam and Whittier Narrows Dam - are maintained by the US Army Corps of Engineers (USACE); both contain regional recreational facilities managed by LA County Dept of Recreation and Parks. Most of the soft-bottom channel areas serve as infiltration areas for recharge to the Main San Gabriel Basin and Central Basin aquifers. Portions of the Central Basin are a Superfund site. All reaches of the mainstem below Santa Fe Dam, and all major tributaries, are on the SWRCB 303(d) list as impaired waterbodies; primarily for bacteria, ammonia, and algae.

The San Gabriel River is often considered to be a sub-unit within the combined Los Angeles and San Gabriel joint watersheds, because the two watersheds are hydrologically connected at the groundwater level, and prior to channelization the two rivers meandered across the coastal plain as a single interconnected system with varying outlets to the sea. The San Gabriel River is currently connected to the LA River through channelization in the Rio Hondo sub-watershed, and the two systems are managed conjointly below Morris Dam for routing of excess stormwater during flood events and release of detained water to specific recharge areas.

Watershed Organizations

The following is an annotated list of organizations active in San Gabriel River Watershed planning, with contact information and their current involvement in watershed planning activities.

Los Angeles and San Gabriel Rivers Watershed Council
111 N. Hope Street, Room 627
Los Angeles, CA 90012
Contact: Rick Harter, Executive Director
213.367.4111 rick@lasgrwc.org
web site: www.lasgrwc.org
- collaboration on all plans in watershed.

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
900 S. Fremont Avenue, Annex 2nd Floor
Alhambra, CA 91802
Contact: Belinda Faustinos, Executive Director
626.458.4318 bfaustinos@dfg.ca.gov
web site: <www.rmc.ca.gov>
- co-sponsor with SMMC of *Common Ground from the Mountains to the Sea*.
- sponsor of *Phase 2 Open Space Plan* for RMC territory.

Los Angeles County
Department of Public Works
Watershed Management Division
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803-1331
Contact: Scott Schales, San Gabriel River Watershed Manager
626.458.4119 sschales@ladpw.org
web site: <www.ladpw.org/wmd/watershed/sg>
- local sponsor for USACE *LA & SG Rivers Watershed Feasibility Study*.
- sponsor of *San Gabriel River Master Plan*.

San Gabriel Mountains Regional Conservancy
PO Box 963
Glendora, CA 91740
Contact: Ann Croissant, President
626.335.1771 glcroissant@csupomona.edu
- sponsored CalPoly Studio 606 project: *Reconnecting the San Gabriel Valley*.
- lead organization for Prop 13 *Upper San Gabriel River WMP*.

Orange County
Public Facilities and Resources Department
Watershed & Coastal Resources Division
300 N. Flower Street, 4th Floor
Santa Ana, CA 92703
Contact: Kathy Matsuyama, Senior Landscape Architect
714.834.6662 matsuyamak@pfrd.co.orange.ca.us
web site: www.ocwatersheds.com/watersheds/introduction.asp
- local sponsor for USACE *Coyote Creek / Carbon Creek WMP*.

Watershed Plans and Planning Activities
The following is an annotated bibliography of watershed plans and anticipated plans pertaining to the San Gabriel River watershed, along with their current status.

Completed and Partially Completed Documents:

- California Resources Agency, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), Santa Monica Mountains Conservancy (SMMC), *Common Ground from the Mountains to the Sea: San Gabriel and Los Angeles Rivers Watershed and Open Space Plan*, October 2001. The purpose of this plan is twofold: 1) articulate a vision for the future of the San Gabriel and Los Angeles Rivers Watersheds; and 2) provide a framework for future watershed and open space planning. Status: completed.

- US Army Corps of Engineers, Los Angeles District, *Los Angeles and San Gabriel Rivers Watershed Feasibility Study*. This study, which grew out of the Los Angeles County Drainage Area (LACDA) project, was conducted to develop a comprehensive database, identify multi-objective demonstration projects, and develop a framework for an Integrated Basin Management Plan. Status: Preliminary Draft completed July 2001, Final study report expected 2002.

- United States Department of Agriculture, Forest Service Pacific Southwest Region, *Angeles National Forest Land and Resources Management Plan*, 1987. This plan was developed to direct the management of 651,874 acres of public land known as the Angeles National Forest (including 5,559 acres of the Los Padres National Forest and 4,842 acres of the San Bernardino National Forest). The Upper San Gabriel sub-watershed is included within the planning area. Status: being updated, new plan expected to be completed with Final EIS in September, 2003 and ROD in February, 2004.

- Brown, Jay; Delgado, Douglas; Stevens, Jeff; Sung, Kibum, *Reconnecting the San Gabriel Valley: A Planning Approach for the Creation of Interconnected Urban Wildlife Corridor Networks*, June 2000, 606 Studio, Department of Landscape Architecture, California State Polytechnic University, Pomona. A plan for planning: the purpose of this document is to provide a regional planning process for the creation of urban wildlife movement networks in the San Gabriel River watershed. Status: completed.

Planning Activities and Forthcoming Documents:

- The RMC is in the process of completing Phase 2 of its *Open Space Plan*, with focus on Rivers Parkway; Trails & Bike Paths; Mountains, Hills & Foothills; Habitat Conservation; and Cultural/Historic Resources. Tributary plans are being separately developed as described below. Status: completion scheduled for July 2002.

- Los Angeles County, Department of Public Works, Watershed Management Division, *San Gabriel River Master Plan*. Now in its third year of stakeholder meetings, this plan will address habitat restoration and preservation, recreation, and open space conservation and enhancement for the San Gabriel River. This is currently scoped as a corridor plan that will focus on areas adjacent to the mainstem, primarily outside Angeles National Forest jurisdiction. Details on tributaries and watershed-wide perspectives are not included. Status: completion scheduled for December 2003.

- The San Gabriel Mountains Regional Conservancy is in the process of developing a Watershed Management Plan for the Upper San Gabriel River, above Whittier Narrows, including the Walnut Creek and San Jose Creek sub-watersheds. Status: completion scheduled for December 2004.

- The Orange County Public Facilities and Resources Department, Watershed & Coastal Resources Division, is the local sponsor for a US Army Corps of Engineers (USACE) comprehensive watershed study of eastern tributaries to the lower San Gabriel River. A Reconnaissance Study was completed in June 2001. Although titled the *Westminster Watershed Reconnaissance Study*, it covers three Orange County watersheds: Coyote Creek, Carbon Creek, and Westminster. In fall 2002, the USACE is scheduled to begin the Feasibility Phase of the watershed study. This phase will cover both the Coyote Creek and Carbon Creek sub-watersheds in one effort. The Westminster sub-watershed will be subject of a separate effort. Status: both plans expected to be completed by June 2005.

Gaps

Los Cerritos Sub-Watershed

The only portion of San Gabriel River not currently being focused on in a comprehensively detailed manner is the Los Cerritos watershed and the river's historic estuary. A number of local groups have been fighting to save Los Cerritos Wetlands for decades, most notably Los Cerritos Wetlands Task Force, Surfrider of Long Beach, Long Beach Audubon Society, and Wetlands Action Network. None of these groups has land acquisition, remediation, or restoration plans in place. Development of a Los Cerritos Wetlands Conceptual Restoration Plan is currently on the SCWRP Tier 2 Work Plan list for FY 2002-03, but is far from certain to be funded. Similarly, the Colorado Lagoon Restoration Project is on the Tier 2 list, and has been for several iterations of the Work Plan. An effort to include the entire Los Cerritos sub-watershed among Proposition 13 WMP projects was unsuccessful, and consequently the Los Cerritos sub-watershed is the only area not currently programmed for development of a WMP.

Priorities

Los Cerritos and San Gabriel River Estuary

The most critical planning gap involves the lower San Gabriel River in the area once historically part of its estuary, from El Dorado Regional Park south to the river mouth. The area includes Los Alamitos Channel

and drainages on the east side of the river as well as the Los Cerritos Channel and Wetlands on the west side of the river; and the Los Cerritos sub-watershed as a whole, including Colorado Lagoon and Alamitos Bay. The area is ripe for collaborative action spearheaded by the RMC and involving Orange County, LA County, cities of Long Beach and Seal Beach, and other parties. The area is also ripe for innovative strategies for hydrologic connectivity and wetland / riparian restoration that could have bio-remediation value for the serious water quality issues facing Seal Beach and Long Beach. SCWRP Coordinator efforts should focus on promoting local capacity to develop an integrated vision and comprehensive plan for the area, to develop appropriate resource plans, and to identify projects that begin to realize restoration objectives.

RMC Open Space / SG River Master Plan / Sub-Watershed Plans Development
The SCWRP perspectives on riparian and wetlands resources should be represented among the many plan development efforts underway. Because all currently programmed efforts are well-managed by sympathetic parties, most of the effort in this regard will be tracking rather than intensive involvement.

Los Angeles River Watershed

Setting
The Los Angeles River Watershed drains approximately 834 square miles, including the Rio Hondo's 132 square mile drainage area. Approximately 324 square miles of the watershed, primarily the mountainous upper watershed, are covered by scrub forest or open space. From the headwaters in the San Gabriel Mountains to the northeast, the Santa Susanna Mountains to the north, the Simi Hills to the west, and the Santa Monica Mountains to the south, the river flows 51 miles to its estuary, Queensway Bay, adjacent to Long Beach Harbor. Most of the river, as it flows through the San Fernando Valley, past the Glendale Narrows, and across the Coastal Plain to the ocean, is encased in concrete channels and travels through a heavily developed urban area.

Like the San Gabriel River, the Los Angeles River is intensely managed for flood control. The USACE maintains two large flood control structures in the San Fernando Valley: Hansen Dam on Tujunga Wash and Sepulveda Basin at the LA River confluence with Bull Creek. Both of these are regional recreational facilities as well as important habitat areas. The LACDPW maintains all channels, except for the Glendale Narrows soft-bottom reach, as well as the groundwater recharge 'spreading basins' below Hansen Dam and along Pacoima Wash. The Upper Los Angeles River Area (ULARA) encompasses four groundwater basins, of which the San Fernando Basin accounts for over 90% of the area. Portions of the San Fernando Basin are a Superfund site. All reaches of the mainstem below Sepulveda Dam, and all major tributaries (Tujunga Wash, Arroyo Seco, Rio Hondo, Compton Creek) are on the SWRCB 303(d) list as impaired waterbodies; primarily for trash, nutrients (algae), ammonia and bacteria; metals and organics are also an issue within the mainstem.

As described above with regard to the San Gabriel River, the Los Angeles River is often considered to be a sub-unit within the combined joint watersheds, because the two watersheds are hydrologically connected at the groundwater level within the Central and West Basins, and connected at the surface level through channelization in the Rio Hondo sub-watershed. At times in geologic history, Ballona Creek was an outlet for the LA River and, at other times, the Dominguez Channel was part of the LA River estuary in San Pedro Bay.

Two specific sub-areas within the LA River watershed have a substantial track record of planning activities, involving significant stakeholder involvement and deserve special mention.

Arroyo Seco
The Arroyo Seco is a major tributary and sub-watershed of the Los Angeles River. The Arroyo Seco drains a 46.6-square mile area and flows 22 miles from the San Gabriel Mountains to its confluence with the Los Angeles River. The upper watershed, approximately half of Arroyo Seco's 22 miles, lies in the Angeles National Forest and supports the Raymond Basin Aquifer. This basin provides half of the local water supply for the City of Pasadena and sustains a year-round flow of water in the arroyo. Devil's Gate

Dam is located at the point where the arroyo emerges from the Angeles National Forest. Behind the dam lies the Devil's Gate Reservoir and the Hahamonga Watershed Park. The Pasadena Water & Power Department diverts water from the arroyo to 13.5 acres of percolation ponds that line the east side of the Devil's Gate Reservoir. Below the dam, the arroyo is mostly channelized and runs along the Pasadena Freeway through areas of limited industrial use, residential neighborhoods, and parks/golf courses, including the Rose Bowl. The Arroyo Seco is on the SWRCB 303(d) list as an impaired waterbody for trash, coliform, and algae in Reaches 1 and 2 (Los Angeles River to Devil's Dam). In the last two decades serious contamination has been identified in the Hahamonga section of the watershed near the Jet Propulsion Laboratory. The area is now a Superfund site, and NASA/JPL has undertaken extensive studies to develop a cleanup program, which they are expected to begin in 2002.

Sun Valley
The Sun Valley watershed is currently a secondary sub-watershed of the Burbank West Channel drainage channel, which is tributary to the Los Angeles River. It is a non-traditional watershed in the sense that whatever historic stream ran through the area has been covered in a buried storm drain. The LACDPW Watershed Management Division believes that at various historic periods, the watershed functioned as a braided channel of the Tujunga Wash, when the wash changed course with each storm season. The Sun Valley watershed drains a 4.5 square mile area that is primarily industrial, with less than 10% open space. The area is very flat and, as a consequence, water tends to pool during storm events which has adversely impacted the surrounding community for years. The County WMD is developing a watershed management plan primarily to address the perennial flooding. The Sun Valley Watershed has no direct 303(d) listing.

Watershed Organizations
The following is an annotated list of organizations active in Los Angeles River watershed planning, with contact information and their current involvement in watershed planning activities.

Los Angeles and San Gabriel Rivers Watershed Council
111 N. Hope Street, Room 627
Los Angeles, CA 90012
Contact: Rick Harter, Executive Director
213.367.4112 rick@lasgrwc.org
web site: www.lasgrwc.org
- collaboration on all plans in watershed.
- sponsor of *Compton Creek Watershed Management Plan*.

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
900 S. Fremont Avenue, Annex 2nd Floor
Alhambra, CA 91802
Contact: Belinda Faustinos, Executive Director
626.458.4318 bfaustinos@dfg.ca.gov
web site: <www.rmc.ca.gov>
- co-sponsor with SMMC of *Common Ground from the Mountains to the Sea*.
- sponsor of *Phase 2 Open Space Plan* for RMC territory.

Santa Monica Mountains Conservancy
LA River Center & Gardens
570 W. Avenue Twenty-six, Suite 100
Los Angeles, CA 90065
Contact: Kathleen Bullard, Director of River Projects
323.221.9939
web site: <www.smmc.ca.gov>
- co-sponsor with RMC of *Common Ground from the Mountains to the Sea*.

Los Angeles County
Department of Public Works

Watershed Management Division
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803-1331
Contact: Vik Bapna, Los Angeles River Watershed Manager
626.458.4363 vbapna@ladpw.org
web site: <www.ladpw.org/wmd/watershed/la>
- local sponsor for USACE *LA & SG Rivers Watershed Feasibility Study*.
- sponsor of *Los Angeles River Master Plan*.
- sponsor of *Sun Valley Watershed Management Plan*.

San Gabriel Valley Council of Governments
3871 E. Colorado Blvd
Pasadena, CA 91107
Contact: Nick Conway, Executive Director
626.564.9702
web site: <www.sgvcog.org>
- sponsor of *Rio Hondo Watershed Management Plan*.

Arroyo Seco
Arroyo Seco Foundation
539 E. Villa Street, #2
Pasadena, CA 91101
Contact: Tim Brick, Managing Director
626.584.9902
web site: www.arroyoseco.org
- co-sponsor with NE Trees of *Arroyo Seco Watershed Restoration Feasibility Study.*

North East Trees
570 W. Avenue Twenty-six, Suite 200
Los Angeles, CA 90065
Contact: Claire Robinson, Executive Director
323.441.8634
web site: www.northeasttrees.org
- co-sponsor with ASF of *Arroyo Seco Watershed Restoration Feasibility Study.*

Watershed Plans and Planning Activities
The following is an annotated bibliography of watershed plans and anticipated plans pertaining to the Los Angeles River Watershed, along with their current status.

Completed and Partially Completed Documents:

- California Resources Agency, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), Santa Monica Mountains Conservancy (SMMC), *Common Ground from the Mountains to the Sea: San Gabriel and Los Angeles Rivers Watershed and Open Space Plan*, October 2001. The purpose of this plan is twofold: 1) articulate a vision for the future of the San Gabriel and Los Angeles Rivers Watersheds; and 2) provide a framework for future watershed and open space planning. Status: completed.

- US Army Corps of Engineers, Los Angeles District, *Los Angeles and San Gabriel Rivers Watershed Feasibility Study*. This study, which grew out of the Los Angeles County Drainage Area (LACDA) project, was conducted to develop a comprehensive database, identify multi-objective demonstration projects, and develop a framework for an Integrated Basin Management Plan. Status: Preliminary Draft completed July 2001, Final study report expected 2002.

- Los Angeles County Department of Public Works, Parks and Recreation, and Regional Planning; National Parks Service Rivers, Trails, and Conservation Assistance Program; Los Angeles

Advisory Committee, *The Los Angeles River Master Plan,* June 1996. The intent of the Master Plan is to create a document that identifies ways to revitalize the publicly-owned rights-of-way along the Los Angeles River and Tujunga Wash into an urban treasure. Status: completed.

- United States Department of Agriculture, Forest Service Pacific Southwest Region, *Angeles National Forest Land and Resources Management Plan*, 1987. This plan was developed to direct the management of 651,874 acres of public land known as the Angeles National Forest (including 5,559 acres of the Los Padres National Forest and 4,842 acres of the San Bernadino National Forest). The upper Tujunga Wash sub-watershed is included within the planning area. Status: being updated, new plan expected to be completed with Final EIS in September, 2003 and ROD in February, 2004.

Planning Activities and Forthcoming Documents:

In addition to watershed-wide planning activity, there are planning activities and forthcoming documents for several Los Angeles River sub-watersheds. These include:

- Arroyo Seco Foundation, North East Trees, *Arroyo Seco Feasibility Study Phase I*, March 2001. This study developed a comprehensive, long-term plan to restore the canyon that runs from the San Gabriel Mountains to the Los Angeles River through the communities of La Canada Flintridge, Pasadena, South Pasadena, and Northeast Los Angeles. Phase I included the systematic collection and inventory of exiting information and identification of critical issues and gaps in knowledge. Status: Phase I completed; Phase II pending/in-progress to be completed by June 2005.

- Los Angeles County Department of Public Works, Watershed Management Division, *Sun Valley Watershed Management Plan*. The plan will address non-traditional (ie, storm drain) methods of managing the water including: re-use, infiltration, and detention. Through these methods, the County intends to recharge groundwater, improve water quality, and increase open space for habitat and recreation. Status: in-progress, with completion scheduled for September 2003.

- San Gabriel Valley Council of Governments, et al, *Rio Hondo Watershed Management Plan*. Status: pending/in-progress, with completion expected by June 2005.

- Los Angeles and San Gabriel Rivers Watershed Council, *Compton Creek Watershed Management Plan.* Status: pending/in-progress, with completion expected by June 2005.

Gaps

Lower Los Angeles River

Although recreation and revitalization projects have been identified for the lower river (defined as that portion of the river south of downtown Los Angeles) in the *Los Angeles River Master Plan*, jurisdictional and land use complexities present significant challenges to moving forward certain riparian restoration projects. Specifically, a Riparian Restoration Plan has recently been completed for an area adjacent to the LA River in South Gate, and some local funding has been committed. But the complexities of ownership and shortfall in funding make this project uncertain. Similarly, there are a number of initiatives in the Long Beach area, which will require coordination among various entities to resolve planning issues for habitat restoration.

San Fernando Valley and San Gabriel Mountains Foothill Sub-Watersheds

A number of feeder streams flow to the upper Los Angeles River in the San Fernando Valley. These streams are from the Santa Monica Mountains (Caballero Creek and Arroyo Calabasas) and the Simi Hills (Bell and Chatsworth Creeks) in the west; the Santa Susanna Mountains (Santa Susana Wash and Brown, Aliso, and Bull Creeks) in the north; and from the San Gabriel Mountains (Tujunga Wash and Burbank East & West) and the Verdugo Hills (Verdugo Wash) in the east. With the exception of Tujunga Wash, the Gaps Analysis did not identify any stakeholder or watershed planning activity for any of these sub-watersheds.

In addition, a number of San Gabriel Mountains foothill streams flow to the Arroyo Seco (Millard Canyon) and Rio Hondo (Eaton and Rubio Canyons, Santa Anita and Sawpit Washes) and then to the Los Angeles River (Millard Canyon, Rubio Canyon, and Eaton Canyon). With the exception of Eaton Canyon, which is a park and has dynamic stakeholder focus, the other streams are unprotected. Although some of these canyons have local non-profits fighting to protect them as open space, as a body, they do not have the large-agency attention needed to preserve them. To wit, Millard Canyon was sold to a private developer in the beginning of July, despite the years-long efforts of a local non-profit to buy it.

Tujunga Wash
The Tujunga Wash is the second-largest sub-watershed in the Los Angeles River watershed. It remains without a focused stakeholder group and without comprehensive watershed management planning, other than the recently completed *Hydrodynamic Study for Restoration Feasibility of the Tujunga Wash*. This study could provide a sound foundation for watershed planning of this waterbody, which contains significant habitat value above Hansen Dam.

Priorities
Lower Los Angeles River Project Development
Riparian project planning and development along the main-stem of the lower Los Angeles River is neither cohesive nor comprehensive and is complicated by jurisdictional and land use issues. To address this issue, the WRP Watershed Coordinator has begun to work with the cities of South Gate and Lynwood to develop a coordinated riparian restoration plan that could serve as a model for other lower main-stem communities.

San Fernando Valley and San Gabriel Mountains Foothills Open Space Strategy
The upper reaches of the sub-watersheds of the San Fernando Valley and San Gabriel Mountains foothills flow, for the most part, unchannelized through open space. This open space, however, is subject to intense development pressure. The strategy is to establish stakeholder groups that will develop comprehensive open space plans to protect the upper sub-watersheds of the San Fernando Valley and the streams of the San Gabriel Mountains foothills. To this end, the Watershed Coordinator is currently working with State Assembly Member Carol Liu's office to identify and establish a foothill open space stakeholder group for the 44th assembly district. The ultimate goal is to develop an open space plan for the foothills of the 44th assembly district. It is hoped that this plan might serve as a model for other assembly districts in the San Fernando Valley and throughout the foothills of the San Gabriel Mountains.

Rio Hondo Sub-Watershed Plan Development
Currently, four sub-watersheds of the Los Angeles River Watershed have focused watershed planning efforts underway. Three of these sub-watersheds (Arroyo Seco, Sun Valley, and Compton Creek) are well-managed by sympathetic parties. Most of the Watershed Coordinator's effort regarding these sub-watersheds will be tracking and support of activity rather than intensive involvement. The SCWRP perspectives on riparian and wetland resources should be represented in the plan development underway for the fourth sub-watershed, the Rio Hondo. The Watershed Coordinator will have more extensive involvement with this sub-watershed planning effort.

Tujunga Wash
The priorities for this sub-watershed are to assist with identification and development of a stakeholder group and to promote comprehensive watershed management planning.

Dominguez Watershed

Setting
The receiving waters of the Dominguez Watershed are actually San Pedro Bay, as a large portion of drainage is directly off the eastern side of the Palos Verde Peninsula, rather than solely via Dominguez Channel. The San Pedro Bay area historically consisted of marshes and mudflats with a large marsh, the Dominguez Slough to the north, and flow from the Los Angeles River entering where Dominguez Channel

now drains. Near the end of the 19th century and the beginning of the 20th, San Pedro Bay was dredged and filled for construction of the harbor. The Los Angeles River was diverted from the area and the Dominguez Slough was completely channelized, becoming the drainage endpoint for runoff from a highly industrialized area. The watershed covers approximately 132 square miles with LAX and Inglewood to the north, the harbor to the south, the Palos Verdes Peninsula ridgeline to the west, and Compton to the east. Despite its intensely industrial nature, contaminant sources, and low flushing ability, the watershed supports a great deal of life. The inner harbor area has fairly diverse fish and benthic populations and provides a protected nursery area for juvenile fish. The California least tern, an endangered species, nests in one part of the harbor complex. In addition, close to 150 acres of remnant wetlands do persist in the watershed including the Machado Lake area, the Wilmington Drain, the Gardena Willows, Lomita Marsh, the JWPCP wetland, and Willow Brook among others. These provide food and shelter for egrets, great blue herons, night herons, and downy woodpeckers, among others.

Watershed Organizations

The Dominguez Watershed Advisory Council (DWAC) is the only organization actively engaged in planning for the Dominguez Watershed as a whole, although several groups have coalesced around protection and enhancement of specific wetland resources (Machado Lake, Cabrillo Salt Marsh (Salinas de San Pedro), Madrona Marsh, etc). DWAC was formed in 2001 by the LACDPW, Watershed Management Division, and the City of Torrance, which function as the council's chair and co-chair respectively. DWAC has a core stakeholder group of approximately 60 members comprised of local NGOs, city, county, and state agencies, neighboring businesses and dischargers. DWAC was formed to address the TMDL issues in the watershed including the Consolidated Slip and Los Angeles Harbor area into which it drains. The Dominguez Channel is on the SWRCB 303(d) list for bacteria, metals, nutrients and historic pesticides.

Dominguez Watershed Advisory Council (DWAC)
c/o Los Angeles County Department of Public Works
Watershed Management Division
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803-1331
Contact: David Rydman, Chair
626.458.4335 drydman@ladpw.org
web site: <www.ladpw.org/wmd/watershed/dc>
Wendell Johnson, co-Chair
310.618.5951 WJohnson@torrnet.com

Watershed Plans and Planning Activities

The following is an annotated bibliography of watershed plans and anticipated plans pertaining to the Dominguez Watershed, along with their current status.

Completed and Partially Completed Documents:

- Parsons, Infrastructure & Technology Group Inc, *Machado Lake Watershed Management Plan,* Volume II of Ken Malloy Harbor Regional Park Improvement Program. This document was prepared for the City of Los Angeles Department of Recreation & Parks (LA RAP) and the Palos Verde / South Bay Audubon Society. The purpose of the project is to improve water quality and restore habitat resources. The plan itself focuses on identification of pollutant sources and loadings, lake water and sediment analysis, evaluation of alternative Best Management Practice (BMP) strategies, and a concept for stakeholder group formation. Other project components include updating the Master Plan as well as the Mosquito Control Plan.
  Status: completed May, 2002.

Planning Activities and Forthcoming Documents:

- DWAC is in the preliminary stages of developing a watershed management plan. It is DWAC's intent that the plan capture and accomplish the following objectives: increase local and affected interests' understanding and input in the management of watershed resources; identify problems and issues of importance to local citizens, groups, and users of the watershed; undertake a proactive approach in management of the watershed; diminish and eliminate further degradation of the watershed and its resources through better management practices; and increase the viability, diversity, and health of the watershed. Status: pending/in-progress with scheduled completion December 2003.

Gaps

Thus far, DWAC's activities have focused on water quality issues in the creek and harbor including wet and dry-weather sampling, pollutant fate and transport, historic pesticide contamination, and creek/harbor transport. In focusing on these critical water quality issues in the creek and harbor, DWAC may be overlooking a number of remnant historic wetlands including: the Los Angeles County Sanitation Districts mitigation marsh, Wilmington Drain/Bixby Slough, Gardena Willows, Telco Wetland, Albertoni Wetland, and the 22nd Street fresh water seep in the harbor. These wetlands are all in public ownership. Some are mitigation wetlands, some are part of the Los Angeles County Flood Control, and the 22nd Street area is owned by the Port of Los Angeles. In all, there are some 150 acres of historic wetlands in the Dominguez Watershed that constitute an invaluable natural resource in this heavily developed, industrial watershed and need to be planned for, maintained, and protected.

Priorities

Dominguez Watershed Plan Development

The strategy here is continued involvement in overall DWAC activity to ensure that 1) the SCWRP perspectives on riparian and wetland resources be represented in the watershed management planning effort, and 2) remnant wetlands identified by the Gaps Report are included in the plan.

Wetlands Resources

Certain remnant Dominguez Watershed wetlands are without focused organizations promoting their protection and restoration. Nurturing stakeholder engagement around these specific wetlands is a high priority.

Santa Monica Bay Watershed

Setting

The Santa Monica Bay Watershed is quite diverse in that it includes the Bay itself as primary receiving waters, the Santa Monica Mountains, the Los Angeles Coastal Plain, and the South Bay bluffs. Santa Monica Bay, 226 square miles with 50 miles of coast line, is the submerged portion of the Los Angeles basin. It has a gently sloping continental shelf which extends seaward to the shelf break about 265 feet underwater, then drops steeply to the floor of the Santa Monica Basin, at about 2,630 feet. The shelf ranges in width from a few hundred yards to about 12 miles and is transected by three submarine canyons: Dume Submarine Canyon; Santa Monica Submarine Canyon; and Redondo Submarine Canyon. The Bay supports a number of habitats: lagoons and wetlands, El Segundo Dunes, beaches, short bank, rocky inter-tidal zone, kelp beds, pelagic, and benthic.

The SM Bay watershed, 414 square miles in total area, follows the crest of the Santa Monica Mountains on the north from the Ventura-Los Angeles County line to Griffith Park. From there it extends south and west across the Los Angeles Plain to include the area east of Ballona Creek and north of Baldwin Hills. South of Ballona Creek the natural drainage is a narrow strip of remnant wetlands, Ballona Wetlands, between Playa del Rey and Palos Verdes. The watershed is comprised of 28 sub-watersheds - the largest of which are Malibu and Ballona Creeks. The Malibu Creek area contains mostly undeveloped mountain areas, large acreage residential properties, and many natural stream reaches, while Ballona Creek is predominantly channelized and highly developed with both residential and commercial/industrial properties.

There are three major sub-watersheds with significant individual stakeholder involvement and track record of planning activities.

Ballona Creek
Ballona Creek is the largest sub-watershed in the Santa Monica Bay Watershed at approximately 128 square miles. Eighty to 90 percent of the watershed is in the City of Los Angeles. The upper watershed, now completely buried, drains the Los Angeles neighborhoods of Hollywood Hills, Silver Lake, Hollywood, South Park, mid-Wilshire, Koreatown, Crenshaw, Lemmert Park, Jefferson Park, the northeast drainage of the Baldwin Hills, and, the cities of West Hollywood and Beverly Hills. The exposed portion of the watershed is completely channelized from Cochrane Avenue, where it emerges into daylight, to the ocean, except for the estuarine portion which has a soft bottom. While at one time Ballona Creek drained into a large wetlands complex, it now has no direct connection to the few wetlands remaining in the area, although tide gates exist in the channel which connect to Ballona Wetlands. However, Ballona Creek may more often affect the nearby wetlands due to wave action moving trash, suspended material and dissolved contaminants from the ocean to the nearby Ballona Wetlands and Marina del Rey Harbor within which Ballona Lagoon is located. Ballona Creek has two tributaries, Centinela Creek and the Sepulveda/Sawtelle Channel.

Malibu Creek
Malibu Creek is the second largest sub-watershed in the Santa Monica Bay Watershed. The creek and its tributaries drain a 109-square-mile area of the Santa Monica Mountains and adjacent Simi Hills. Malibu Creek drains into Malibu Lagoon and from there into Santa Monica Bay. Approximately two thirds of the watershed is located in northwestern Los Angeles County, and the remaining third is in southeastern Ventura County. Over 90,000 human residents in five cities and unincorporated areas of Los Angeles County call this watershed home, as do countless plant and animal species. Some animal species, such as the steelhead trout, tidewater goby and brown pelican are endangered. Many others, such as the snowy plover and peregrine falcon, are threatened. The watershed also hosts the popular Malibu Creek State Park, many hiking/biking trails, and spectacular scenery spanning from the ocean to the mountains.

Topanga Creek
Topanga Creek is the third largest sub-watershed in the Santa Monica Bay watershed. It consists of a north-south trending, Y-shaped canyon that covers approximately 18 square miles with elevations ranging from sea-level to over 1,700 feet. The 9-mile axis of the main drainage drops an average of 250 feet/mile, creating narrow, steep-sided canyons with exposed walls of sedimentary rocks. The creek is an interrupted stream with perennial pools fed by numerous springs and tributaries along its two main branches. The mouth of the creek emerges into Santa Monica Bay through a small estuary, Topanga Lagoon, which historically covered over 30 acres.

Watershed Organizations
The following is an annotated list of organizations active in Santa Monica Bay watershed and sub-watershed planning, with contact information and their current involvement in watershed planning activities.

Santa Monica Bay

Bay Watershed Council (BWC)
c/o Santa Monica Bay Restoration Project
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Contact: Marianne Yamaguchi, Director
213.576.6614 myamaguc@rb4swrcb.ca.gov
web site: <www.smbay.org>
- oversees implementation of the *Bay Restoration Plan*.

Ballona Creek
The Los Angeles County Department of Public Works, the Santa Monica Bay Restoration Project, and the Ballona Creek Renaissance serve as co-chairs to the Ballona Creek Watershed Task Force.

Ballona Creek Watershed Task Force (BCTF)
c/o Los Angeles County Public Works
Watershed Management Division
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803-1331
Contact: Jessica Dominguez, Chair
625.458.4323 jdominguez@ladpw.org
web site: <www.ladpw.org/wmd/watershed/bc>
Jim Lamm, co-Chair
310.839.6896 jwlamm@aol.com
web site: <bcren.home.att.net>
- developing watershed *Master Plan* for entire watershed including the upper watershed, the tributaries, and Ballona Wetlands.

Malibu Creek
The Malibu Creek Advisory Council was established during the 1980s. The Santa Monica Mountains Resource Conservation District coordinates the efforts of the Malibu Creek Advisory Council regarding watershed planning and program implementation.

Malibu Creek Watershed Advisory Council
c/o RCDSMM
122 N Topanga Blvd.
Topanga, CA 90290
Contact: Melissa Johnson, Malibu Creek Watershed Coordinator
310.455.1030 x 104 mcjohnson@rcdsmm.org
- oversees watershed management activities

Topanga Creek
The Topanga Creek Watershed Committee formed in 1998 with start-up funding from the CA Department of Conservation and sponsorship by the Resources Conservation District of the Santa Monica Mountains.

Topanga Creek Watershed Committee
c/o RCDSMM
122 N. Topanga Canyon Blvd.
Topanga, CA 90290
Contact: Rosi Dagit, Topanga Creek Watershed Coordinator
310.455.1030 x 211 oaksrus@mac.com
web site: www.topangaonline.com
- continues to build upon the solid foundation established by the now defunct Topanga Canyon Flood Plain Management Citizen's Advisory Committee.

Watershed Plans and Planning Activities
The following is an annotated bibliography of watershed plans and anticipated plans pertaining to the Santa Monica Bay watershed and its major sub-watersheds, along with their current status.

Completed and Partially Completed Documents:

- Santa Monica Bay Restoration Project, *Santa Monica Bay Restoration Plan*, November 1998. This Plan addresses the need for pollution prevention, public health protection, habitat restoration, and comprehensive resource management for Santa Monica Bay. Status: completed.

Malibu Creek
- Topanga-Las Virgenes Resource Conservation District, US Department of

Agriculture, Natural Resources Conservation District Service, *Natural Resources Plan Malibu Creek Watershed Los Angeles and Ventura Counties, California.* July 1995. This report is a summary of resource conditions, concerns, and evaluations. It contains recommended conservation practices for select watersheds. It is expected to assist residents, groups, and agencies in the Malibu Creek Watershed in their efforts to: reduce non-point source pollution that is degrading water quality; prepare plans and actions to reduce effects of the alteration of the streamflow regime resulting from development; and, evaluate the effects of the breaching of the lagoon entrance sandbar and, perhaps, implement practices that regulate breaching. Status: completed.

- PRC Services Corporation, WaterCycle LLC, *Watershed Management Area Plan for the Malibu Creek Watershed,* January 2001. This document was prepared for the Las Virgenes Malibu Conejo Council of Governments. The Malibu Watershed Advisory Council is using this document as the template for an urban runoff reduction plan for the whole watershed. Status: completed.

Topanga Creek

- Topanga Creek Watershed Committee, *Topanga Creek Watershed Management Plan*, revised March 2002. This plan is a living document and is meant to be updated and amended in order to respond to the evolution of the planning process. The document includes sections on archeological and cultural resources; economics; education and outreach; flood and fire hazard protection; land use; natural environment; recreation; transportation; water quality; and, monitoring, research, and restoration programs. Status: completed.

Gaps

Coastal Watersheds

The Santa Monica Bay (SMB) watershed has 25 small sub-watersheds along the Santa Monica Mountains coast that are in further need of identification of stakeholder interest/activity and planning efforts. Similarly, the South Bay Bluffs, which are south of the Ballona watershed, are not currently receiving any attention for habitat restoration potential.

Priorities

Sub-Watershed Plans Development

Three SMB sub-watersheds (Ballona, Malibu and Topanga) have planning efforts underway that are well-managed by sympathetic parties, whose leaders are participants in the WRP's LA County Task Force. The strategy is to remain involved with the Ballona Creek Watershed Management Task Force to ensure that the SCWRP perspectives on riparian and wetland resources are represented during plan development, and to track and support the plan implementation efforts in Malibu and Topanga.

Coastal Watersheds

The strategy is to continue identification of stakeholder groups in these watersheds and to track and support planning activities.

Santa Clara River Watershed

Setting

The Santa Clara River, draining 1,600 square miles, is the largest watershed in southern California and is one of the last large rivers in this rapidly-growing region that still remains in a relatively natural state. Of the river's 100 mile length, only six miles have been channelized. 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, in Ventura County.

The river is home to a number of endangered species including the stickleback in its upper reaches and the tidewater goby, California least tern, and snowy plover at its mouth. Extensive natural habitat remains along much of the river corridor. The Santa Clara has two main tributaries, Sespe and Piru Creeks. These tributaries provide important corridors for wildlife movement between the river and native upland habitat.

The State of California has designated the Sespe, the larger tributary, as a wild trout stream. Piru Creek and a smaller tributary, Santa Paula Creek, also support good habitats for steelhead. Both the riparian forests along much of the river, and the Santa Susanna Mountains to the south, are extremely important biologically; providing excellent examples of many rare natural communities and habitats for several rare species. The river empties into a lagoon which supports a large variety of wildlife.

Watershed Organizations
One organization is active in watershed planning for the Santa Clara River.

Santa Clara River Enhancement and Management Plan Steering Committee
c/o Ventura County Flood Control Division
800 S. Victoria Avenue
Venutra, CA 93009
Contact: Jayme Laber, Hydrologist
805.662.6737
- currently directing preparation of an Enhancement and Management Plan.

Watershed Plans and Planning Activities
The following is an annotated bibliography of watershed plans and anticipated plans pertaining to the Santa Clara River watershed, along with their current status.

Planning Activities and Forthcoming Documents:

- Formed in 1993, the Santa Clara River Enhancement and Management Plan Steering Committee, developed six subcommittees to investigate the following areas: biological resources, recreation, water resources, aggregate mining, history, and culture. Each subcommittee prepared reports providing background information, goals, and recommendations for their respective areas. In 1999, the Steering Committee released preliminary river-wide and reach-specific recommendations, based on these reports, for public comment. In 2002, the Committee hired a consultant to assemble these reports into a comprehensive Santa Clara River Enhancement and Management Plan. Status: completion scheduled for summer 2003.

Gaps
Organizational Capacity
No single entity or agency has stepped forward to address planning for the entire 1,600 square mile watershed. (The Santa Clara River Enhancement and Management Plan addresses only the 500-year floodplain). The fact that the river crosses county jurisdictions may be a limiting factor for either the Los Angeles County Watershed Management Division or the Ventura County Flood Control District taking the initiative.

Friends of the Santa Clara River (FSCR), a volunteer-operated non-profit, has been addressing issues along the length of the river for at least ten years. FSCR has been instrumental in the development of the reports for the 500-year floodplain plan, has conducted some volunteer water quality monitoring in the past, and will soon implement a citizen monitoring program to assist the river's nutrient TMDL study. The group has recently acquired a 230-acre river bottom parcel in Ventura County near the town of Santa Paula, with the assistance of the Coastal Conservancy. Despite this activity, FSCR doesn't seem to have the resources to undertake a watershed management plan effort, without the significant assistance of an agency (county) or larger organization (SCWRP).

The cities of Santa Clarita, Acton, and Agua Dulce, are developing a plan called *One Valley, One Vision*, that addresses development and open space issues in the upper watershed, but individually or collectively, these cities don't seem prepared to assume watershed management planning responsibility. Heather Merendes of City of Santa Clarita's Planning Department, has expressed an interest in convening a LASGRWC-esque roundtable to discuss issues of open space and land use in the upper watershed.

The US Army of Engineers has expressed willingness to conduct a feasibility study, half of which ($4 million) is to be paid by local partners.

The Regional Water Board has spearheaded formation of a Santa Clara River nutrient TMDL stakeholder group. The Regional Board must address this TMDL in the river by 2003. This stakeholder group has, in turn, formed a steering committee which will assess existing data, identify gaps in that data, and address those gaps. FSCR's citizen monitoring activity will assist the effort of the steering committee. The steering committee members, in particular County Sanitation Districts of Los Angeles and Ventura County, have funded the hiring of a consultant to develop a model that will identify the sources of nutrient loading and perform linkage analyses to see if sources are reaching the river. While addressing issues critical to the health of the river, this group won't focus on watershed management planning.

The Nature Conservancy (TNC) has been quite active in the last year acquiring both river bottom and upland parcels between Fillmore and Santa Paula in Ventura County, in an effort to protect pristine riparian habitat and wildlife corridors between the Santa Monica Mountains and the Angeles National Forest. In April, TNC hired a biologist to function as its Santa Clara River Coordinator. This Coordinator is not in a position to undertake watershed management planning.

The complexity of this watershed system, coupled with divergent goals among upstream developers, downstream farmers, and environmental interests, necessitate that extra planning resources be allocated to this watershed.

Priorities

Stakeholder Group Development

Development of a comprehensive, watershed-wide stakeholder organization is the first priority. This group must consist of representatives from both counties, the Regional Water Quality Control Board, state conservancies active in the region, the Department of Fish and Game, the USACE, river cities, and environmental, agricultural, and development/business interests.

Plan Development

Once this group is established, nurturing a comprehensive, equitable watershed management plan is the next priority.

APPENDIX: WATERSHED PLANNING ORGANIZATIONS OF LOS ANGELES COUNTY

San Gabriel Watershed

Los Angeles and San Gabriel Rivers Watershed Council

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy

Los Angeles County Department of Public Works
Watershed Management Division

San Gabriel Mountains Regional Conservancy

Orange County Public Facilities and Resources Department
Watershed & Coastal Resources Division

Los Angeles Watershed

Los Angeles and San Gabriel Rivers Watershed Council

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy

Santa Monica Mountains Conservancy

Los Angeles County Department of Public Works
Watershed Management Division

San Gabriel Valley Council of Governments

Arroyo Seco Foundation

North East Trees

Dominguez Watershed

Dominguez Watershed Advisory Committee
c/o Los Angeles County Public Works - Watershed Management Division

Santa Monica Bay Watershed

Santa Monica Bay Watershed Council

Ballona Creek Watershed

Ballona Creek Watershed Task Force
c/o Los Angeles County Public Works - Watershed Management Division

Malibu Creek Watershed

Malibu Creek Watershed Advisory Council
c/o RCDSMM

Topanga Creek Watershed

Topanga Creek Watershed Committee
c/o RCDSMM

Santa Clara River Watershed

Santa Clara River Enhancement and Management Plan Steering Committee
c/o Ventura County Flood Control Division