CITY OF LOS ANGELES
CALIFORNIA

DEPARTMENT OF
PUBLIC WORKS

BUREAU OF
ENGINEERING

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May 30, 2008

The Los Angeles City Council

Honorable Ed P. Reyes, Chair
Ad Hoc Committee on the Los Angeles River
Los Angeles City Council
200 N. Spring Street, Room 410
Los Angeles, CA 90012

Dear Councilmember Reyes and Honorable Members:

COUNCIL FILE NO. 07-1342-S1—TRIBUTARIES/WATERSHEDS/LOS ANGELES RIVER REVITALIZATION MASTER PLAN

The following is a report in response to the City Council's direction to the Bureau of Engineering (BOE) to develop a plan of action on how to include the various tributaries and watersheds which feed into the Los Angeles River into the work done on the Los Angeles River Revitalization Master Plan (LARRMP), and to report back with suggestions for possible funding to achieve the expressed goal of including the tributaries and watersheds into LARRMP implementation.

DISCUSSION

The Tujunga Wash is a significant tributary to the Los Angeles River, its confluence and significant upstream reaches—including the Hansen Dam Flood Control Basin—are located within the City, it is undergoing a watershed-scale analysis, and this focus is consistent with the LARRMP's pledge to coordinate with efforts within the watershed, it is a particularly appropriate candidate for future near-term focus. Also, given that portions of the Tujunga Wash have already been targeted for redevelopment funding by the Community Redevelopment Agency (CRA), and that the CRA will be taking the lead in developing the LARRMP-recommended River Revitalization Corporation, the Tujunga Wash could provide an important early-case for implementation of revitalization projects.

RECOMMENDATION

As articulated in the attached report, entitled, *Plan of Action: Linking the Tujunga Watershed with Los Angeles River Revitalization*, we recommend that the City proceed with identifying and funding projects in the Tujunga Watershed through its Community Redevelopment Agency project area work program. However, because the CRA project areas only intersect with a small portion of the waterways within the Watershed, we recommend that the City identify additional matching funds to augment the CRA contribution so that projects outside the CRA's jurisdictional boundary may be initiated in concert with the efforts of the CRA and other stakeholders.

These City projects will be early examples of multi-agency collaboration on Los Angeles River revitalization by improving the upstream treatment of contaminated runoff, by facilitating flow attenuation and storage where possible, and by allowing opportunities for ecological restoration that are consistent with the LARRMP and supportive of the City's ongoing partnership in the U.S. Army Corps of Engineers Los Angeles River Ecosystem Restoration Feasibility Study.

The Bureau of Engineering has worked closely with the Community Redevelopment Agency in developing the attached draft report articulating the feasibility of this work for the City. If you have any questions regarding the report, please contact Carol Armstrong of the Bureau of Engineering Los Angeles River Project Office at: (213) 485-5762.

Sincerely,

Gary Lee Moore

Gary Lee Moore, P.E.
City Engineer

Cecilia V. Estolano
Chief Executive Officer
Community Redevelopment Agency of
Los Angeles

Attachment

Plan of Action: Linking the Tujunga Watershed with Los Angeles River Revitalization (May 29, 2008)

Cc:

Honorable Wendy Greuel, Councilmember, District 2
Honorable Jack Weiss, Councilmember, District 5
Honorable Tony Cardenas, Councilmember, District 6
Honorable Richard Alarcón, Councilmember, District 7
Nancy Sutley, Deputy Mayor
Laurie Hancock, Office of the City Administrative Officer
Tom Erb, Department of Water and Power
Shahram Kharagani, Bureau of Sanitation
Darryl Ford, Recreation and Parks

Plan of Action:
Linking the Tujunga Watershed with Los Angeles River Revitalization

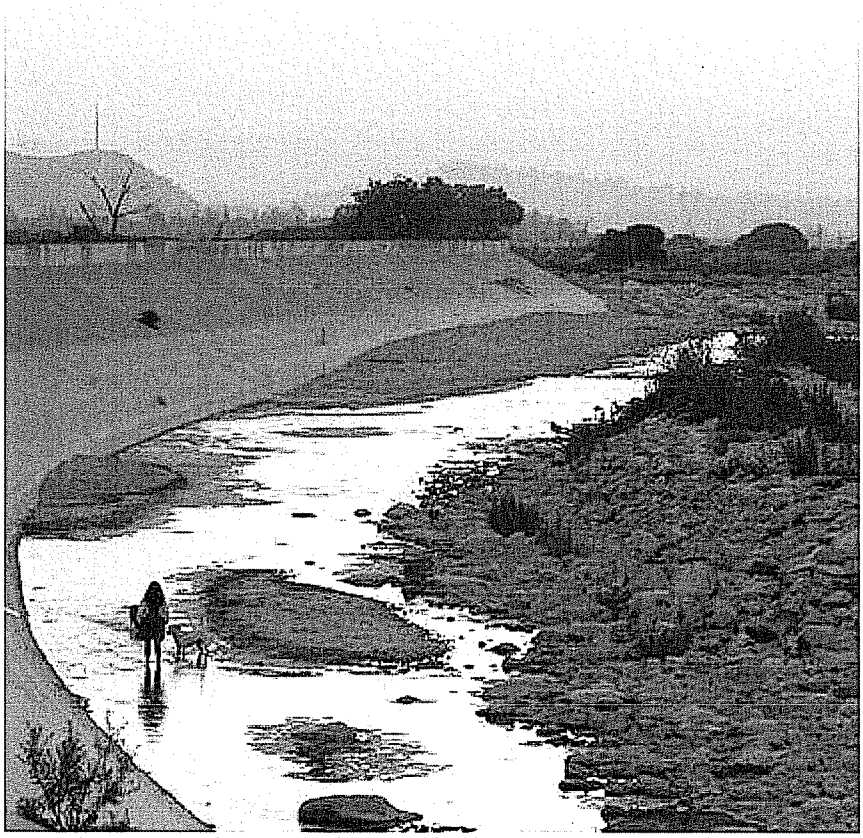


Photo: Sunset at Tujunga Wash, facing west at Big Tujunga Canyon Road and Oro Vista Avenue
Source: Stormwind, September 2, 2005: www.flickr.com, Copyright 2007 Yahoo!

May 29, 2008

Prepared by the
LOS ANGELES RIVER PROJECT OFFICE
City of Los Angeles
Bureau of Engineering
in conjunction with the
Community Redevelopment Agency of the City of Los Angeles

Bureau of Engineering, Public Works Building, 1149 S. Broadway, Suite 600, Los Angeles, CA 90015

CONNECTIONS: LA RIVER REVITALIZATION AND THE TUJUNGA WATERSHED

On May 9, 2007 the City Council adopted the *Los Angeles River Revitalization Master Plan* (LARRMP) as a vision document constituting the framework within which all future Los Angeles River (River)-related development within the City of Los Angeles will be implemented. The LARRMP is a vision document providing a blueprint for River revitalization for the next 20-50 years; its recommendations address the first 32 miles of the River, which flow through the City of Los Angeles—intersecting 10 Council Districts, approximately 20 Neighborhood Council areas, and 12 Community Plan areas.

The LARRMP is focused on the River corridor and its nearby communities, providing a comprehensive, integrated, and more sustainable way of addressing the City's future ability to maintain flood damage protection, and an improved natural environment through creation of new habitat, open space, park, and recreation amenities as well as stormwater treatment and water quality benefits. These improvements are expected to result in improved air, water, and soil quality and an improved quality-of-life for residents.

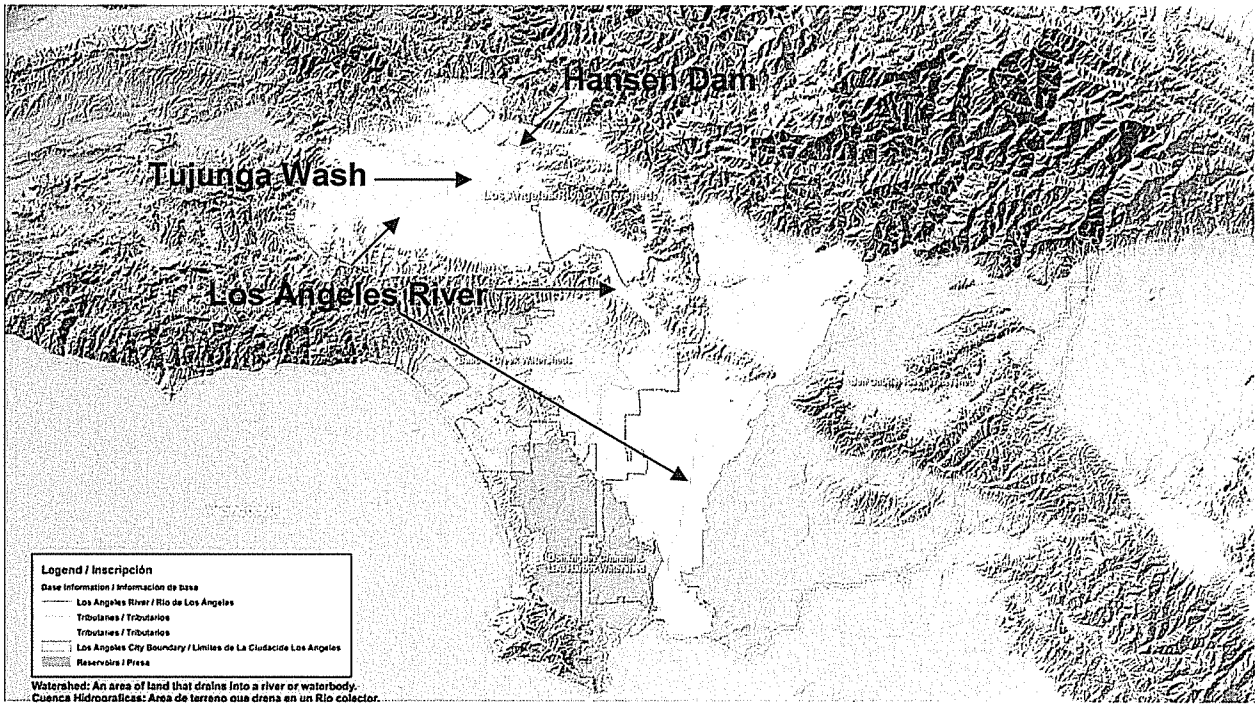
The LARRMP is intended to serve as a guide for the City to implement a variety of greening projects as well as bicycle trails, bridges, enhanced connector streets, channel modifications, ecological restoration, revitalized riverfront communities in key opportunity areas and recommendations for creation of a *Los Angeles River Improvement Overlay* (LA-RIO) district along the stretch of the River that flows within the City.

The approximately 240 projects referenced in the LARRMP are intended as examples also; these projects may assume different scopes and locations as communities express their priorities, but they are provided to demonstrate how LARRMP typologies might be implemented near the River. Although the LARRMP is framed within a watershed context, it does not propose such detailed project-level change within the entire 834 square-mile Los Angeles River watershed (See map on the following page.); however, it does not preclude the possibility of implementing such projects. Indeed, realization of the LARRMP's objectives will require that projects be implemented upstream—particularly those that result in water attenuation and storage.

According to the City's Bureau of Sanitation (BOS), there are approximately 80 named tributaries to the Los Angeles River; these range from the very small Silver and Vasquez Creeks (approximately one mile in length) to the Tujunga Wash and Arroyo Seco (25 and 23 miles in length, respectively). A variety of watershed-based planning efforts are already taking place along the River's tributaries, including the County of Los Angeles and U.S. Army Corps of Engineers' *Arroyo Seco Watershed Feasibility Study* (in conjunction with the County of Los Angeles and Arroyo Seco Foundation, Council of Arroyo Seco Organizations, and Council of Arroyo Seco Agencies) and the 225-square mile *Tujunga/Pacoima Watershed Plan* project (completed in April 2008 through a partnership between The River Project and the CalFed Bay Delta Program).

Both of these tributaries—the Arroyo Seco and the Tujunga Wash—are significant water bodies and their flows impact what kind of change may take place within the River channel. Because of this, not only are their confluences key areas to address in River revitalization, but also their upstream reaches. The LARRMP states that water storage

and attenuation are critical aspects of enabling change within the River channel; thus, upstream activities must be considered as the LARRMP is implemented. This upstream coordination is an important and expected function of implementation and one that will be addressed through the River Memorandum of Understanding—a cooperative



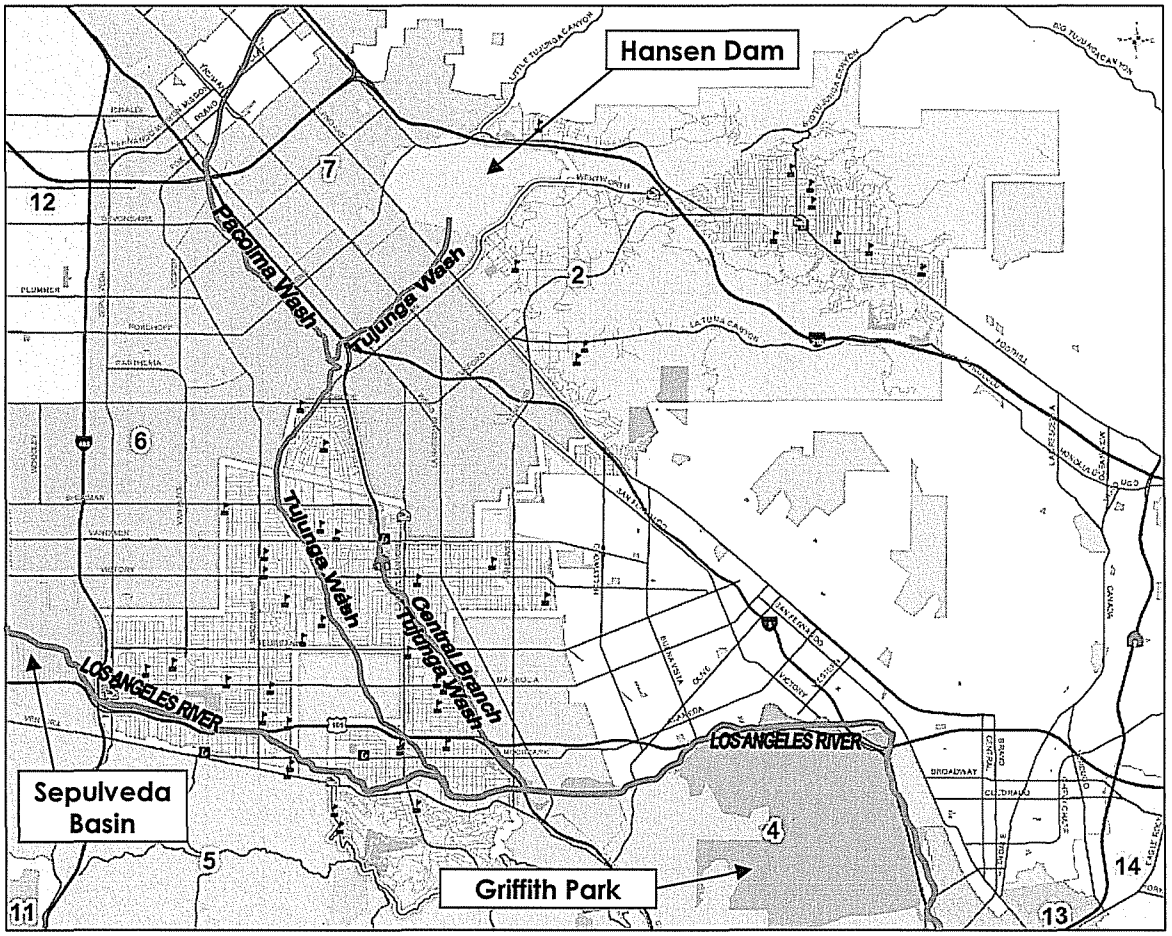
agreement to be forged between the City and the County of Los Angeles, in coordination with the State of California and the U.S. Army Corps of Engineers.

The Los Angeles River watershed, including the Los Angeles River and its major tributaries, are water bodies with not only region-wide, but also State-wide impact. Their flows directly enter the Pacific Ocean and affect at least 11 downstream cities along the way. Thus, LARRMP implementation must consider both upstream and downstream concerns, as follows:

> The full revitalization of the Los Angeles River will require ongoing coordination of the efforts of many agencies, jurisdictions, interest groups and individuals. The three-tiered River Management recommendation is intended to guide the effective implementation of the Plan's recommendations for the River Corridor and nearby communities. There will remain an important need for a more comprehensive, region-wide coordination of River planning, including tributary, water quality, and land-use planning and policymaking that will establish long-term improvements that move toward an integrated watershed approach. As the Plan's proposed projects are readied for implementation, along with those of other jurisdictions that are part of the Integrated Regional Water Management Plan area, the Los Angeles County River Master Plan area and others, it will become more and more important that one entity emerge to facilitate collaboration between implementing jurisdictions, funding partners, and regulatory agencies. (LARRMP 2007, p. 10-3)

Moreover, the LARRMP commits to implementation "in coordination with existing and future watershed plans—to successfully improve and protect water quality and restore aquatic resources throughout the Los Angeles River Watershed." (Ibid., p. 3-19)

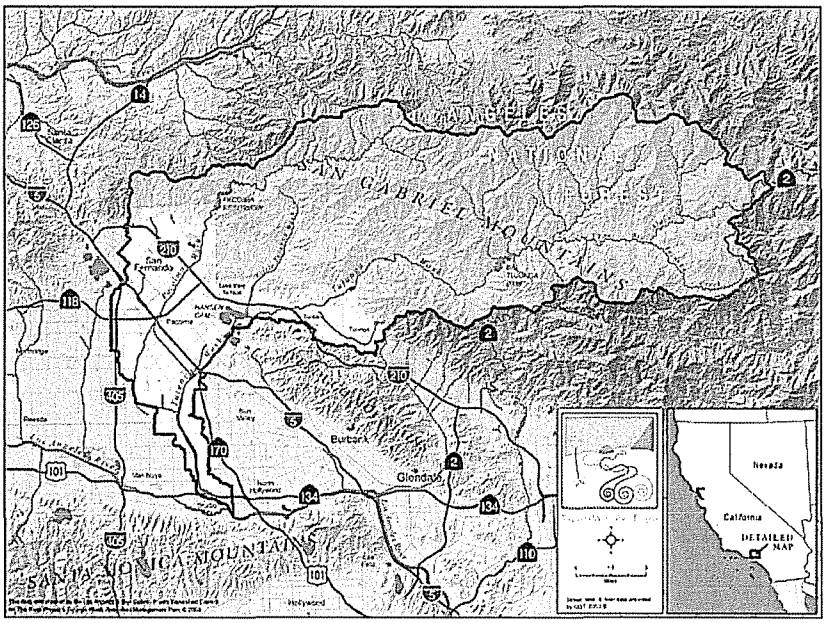
Given that the Tujunga Wash is a significant tributary to the Los Angeles River, that its confluence and significant tributary—the Pacoima Wash—and upstream reaches, including the Hansen Dam Flood Control Basin, are located within the City and intersect five Council Districts (See map below.), that it has undergone a watershed-scale analysis, and this focus is consistent with the LARRMP's pledge to coordinate with efforts within the watershed, it is a particularly appropriate candidate for future near-term focus. Also, given that portions of the Tujunga Wash have already been targeted for redevelopment funding by the Community Redevelopment Agency (CRA), and that the CRA will be taking the lead in developing the LARRMP-recommended River Revitalization Corporation, the Tujunga Wash could provide an important early-case for River-related revitalization.



Notes: Map adapted from City of Los Angeles Council District 2 boundary map (2007); numbers indicate Council Districts; waterway locations and dimensions are approximate.

CONTEXT: THE TUJUNGA WATERSHED

The Tujunga Wash is located in the San Fernando Valley with its headwaters in the San Gabriel Mountains. It is a major tributary of the Los Angeles River. (U.S. Army Corps of Engineers, Darrell Buxton, May 2005) The Tujunga Wash is situated within a 225 square mile watershed (See map below.), which is the largest subwatershed of the Los Angeles River Watershed. (*The State of the Tujunga*, The River Project/CalFed Bay Delta, October 2006). The Tujunga Watershed, which includes both the Big Tujunga, Little Tujunga, and Pacoima Washes, is the subject of an ongoing study, *The Tujunga Watershed Project*, being prepared by The River Project for the California Bay Delta Authority (CalFed Bay Delta). (Ibid.) This area is home to more than half a million people. (Tujunga Watershed Project Demographic Summary, March 2005) The majority of the population lives within the City of Los Angeles; however, the watershed also includes the City of San Fernando, which is surrounded by Los Angeles. (Ibid.) More than half of the Tujunga Wash's upper watershed is located within the sparsely-populated Angeles National Forest; its lower watershed is highly urbanized with varying densities of development. (Ibid.)



Source: www.tujungawash.org

The Tujunga Watershed is a major contributor to the regional groundwater supply and, since channelization, the aquifer underlying the watershed has experienced less than natural infiltration of stormwater, but still provides nearly 13 percent of the City's drinking water supply. (The State of the Tujunga, p. 6 and DWP comments (05/20/2008)) Because the lower portion of the Tujunga Watershed overlies part of the San Fernando and Sylmar Ground Water Basins (p. 35), opportunities exist to enhance the replenishment of the aquifer by restoring the natural hydrologic functions of the watershed. In addition to flood control channel infrastructure, the watershed includes four dams and reservoirs, 16 debris basins, five spreading grounds, four gravel mining operations, and a power generating station. (p. 6) Many of these facilities offer opportunities for implementing large-scale multi-benefit water supply replenishment efforts through redesign, retrofit, and redevelopment and should be considered in revitalization projects proposed for implementation in or near the Tujunga Wash.

The Tujunga Wash begins as the Big Tujunga Creek, which flows from steep mountainous terrain westward around the Verdugo Mountains and then southwest through the San Fernando Valley:

> Historically, Tujunga Wash was a braided channel system with at least three channels...The main channel occurred along the same curved path as the current Tujunga Wash with a narrower active channel within a larger channel that flowed during large flood events. During large storm events two minor channels branched off on the eastern side of the main channel. The historical channel width (prior to 1927) is estimated to have ranged between 1,200 feet and 2,850 feet with a flow capacity of 13,400 to 80,900 cubic feet per second (cfs). (p. 35)

After the Creek turns into the Wash's two branches, they join the Los Angeles River (See map on the following page.), which flows on to the Pacific Ocean. The Wash branches' confluences with the Los Angeles River also present important opportunities for future revitalization efforts; thus, coordination with implementation of the *Los Angeles River Revitalization Master Plan* is critical.


Hansen Dam
PACOIMA WASH
TUJUNGA WASH
CENTRAL BRANCH TUJUNGA WASH
LOS ANGELES RIVER
San Fernando
Mission Hills
Pacoima
Stonehurst
North Hills
Panorama City
Sun Valley
Van Nuys
Sepulveda Basin
Valley Village
North Hollywood
Sherman Oaks
Studio City
Tujunga Wash and the L.A. River
©2007 Google
1 mi
1 km

Because of the Hansen Dam Flood Control Basin's location on the Tujunga Wash, opportunities exist for project partnerships between the U.S. Army Corps of Engineers, the County of Los Angeles Flood Control District, the Los Angeles Department of Water and Power, and other public and private sector entities. Additionally, because of the Wash's intersection with three Community Redevelopment Agency project areas (Pacoima/Panorama City, North Hollywood, and Laurel Canyon), an unprecedented opportunity exists for the City to align its economic redevelopment and sustainable development goals in an underserved community that has significant ecological value through the identification of small- and large-scale multi-benefit projects. Current activities and potential partnerships will be discussed next.

CURRENT ACTIVITIES IN THE WATERSHED

The City would benefit from developing and implementing projects within the Tujunga Watershed that result from the meaningful input and participation of the wide variety of stakeholders who have already or are currently conducting similar efforts. Some of these groups are the County of Los Angeles—through its Flood Control District and its *Los Angeles River Master Plan* Advisory Committee, the Los Angeles District of the U.S. Army Corps of Engineers, the Mountains, Recreation and Conservation Authority (MRCA), the California Coastal Conservancy, the Los Angeles and San Gabriel Rivers Watershed Council, and The River Project.

For instance, future City projects can build on the work of the County's *Los Angeles River Master Plan* (June 1996) and the subsequent augmenting documents to this Plan, including the *Sign Guidelines* (March 2004), and the *Landscaping Guidelines and Plant Palettes* (March 2004). As mentioned above, new projects should be consistent and compatible with the City's *Los Angeles River Revitalization Master Plan* (2007) and *Los Angeles River Improvement Overlay* (LA-RIO) district (which is expected to be considered by the Los Angeles City Council in the fall of 2008) as well as the City-supported U.S. Army Corps of Engineers *Los Angeles Ecosystem Restoration Feasibility Study* (F3 Phase completed Internal Review process in November 2007; F4 Phase is now underway.).

Given the City's obligations to comply with water quality improvement mandates—such as the Total Maximum Daily Load (TMDL) compliance requirements, each new project should integrate water quality considerations. Project considerations may also include, but are not limited to: habitat restoration/improvement; specific pollutant reduction; water conservation and supply; groundwater protection and/or recharge; recycled water use; and urban runoff collection, treatment and reuse. Projects should also be multi-purpose in nature—providing public open space amenities that incorporate the recommendations of the Integrated Resources Plan (IRP) and Water Quality Compliance Master Plan of the City's Bureau of Sanitation, which address water quality and water use in the region, and measures identified in the County-led Integrated Regional Water Management Plan (IRWMP), which was developed in response to State water resource management policies.

As mentioned above, a variety of key projects are already underway or planned for implementation within the Tujunga Watershed and the City's future activities should take these into consideration; they include:

U.S. Army Corps of Engineers

- Hansen Dam Recreation Area and Flood Control Basin
- Los Angeles County Drainage Area (LACDA) Study
- Los Angeles River Ecosystem Restoration Feasibility Study
- Rehabilitation of the Hansen Dam Lower Lakes
- Sun Valley Watershed Study
- Tujunga Wash Environment Restoration 905(b) Reconnaissance Report and Tujunga Wash Ecosystem Restoration Feasibility Study

County of Los Angeles Flood Control District

- Big Tujunga Dam-San Fernando Basin Groundwater Enhancement project (with DWP; under IRWMP funding consideration[1]) Cost: Approximately $81 million; Funding: Proposition 13 ($6.6 million); FEMA Hazard Mitigation Grant Program ($7.3 million); LADWP ($9 million); County ($24 million); Pursuing $34 million from Propositions 1E
- Hansen Spreading Grounds Basin Improvements (with DWP (See below.); under IRWMP funding consideration) Cost: Approximately $15 million; Funding: County ($7.5 million); LADWP ($7.5 million);
- Los Angeles River Headwaters, Phase I project (under IRWMP funding consideration)
- Lower Pacoima Wash Improvements (with DWP (See below.))
- Pacoima Spreading Grounds Improvements (with DWP (See below.); under IRWMP funding consideration)
- Sheldon Pit Stormwater Capture Project (with DWP (See below.))
- Sun Valley Middle School Multi-Use project (with BOS (See below.); under IRWMP funding consideration)
- Sun Valley Watershed-Strathern Pit Multi-Use (with DWP (See below.); under IRWMP and Proposition O funding consideration)
- Tujunga Wash Restoration project (Section 1135)/Tujunga Spreading Grounds Enhancement Project (with DWP (See below.); under IRWMP funding consideration)
- Sun Valley Watershed-Tuxford Green Project (with BOS (See below.)) Cost: $3.6 million; Funding: County ($3.6 million); Maintenance by the City.
- Valley Generating Station Stormwater Recharge project (with DWP (See below.)
- Sun Valley Park Multi-Use Project (with BOS (See below.)) Cost: $6 million; Funding: $220,000 grant from the State Department of Water Resources; $400,000 Proposition 12 grant received by TreePeople; about $5.4 Million from

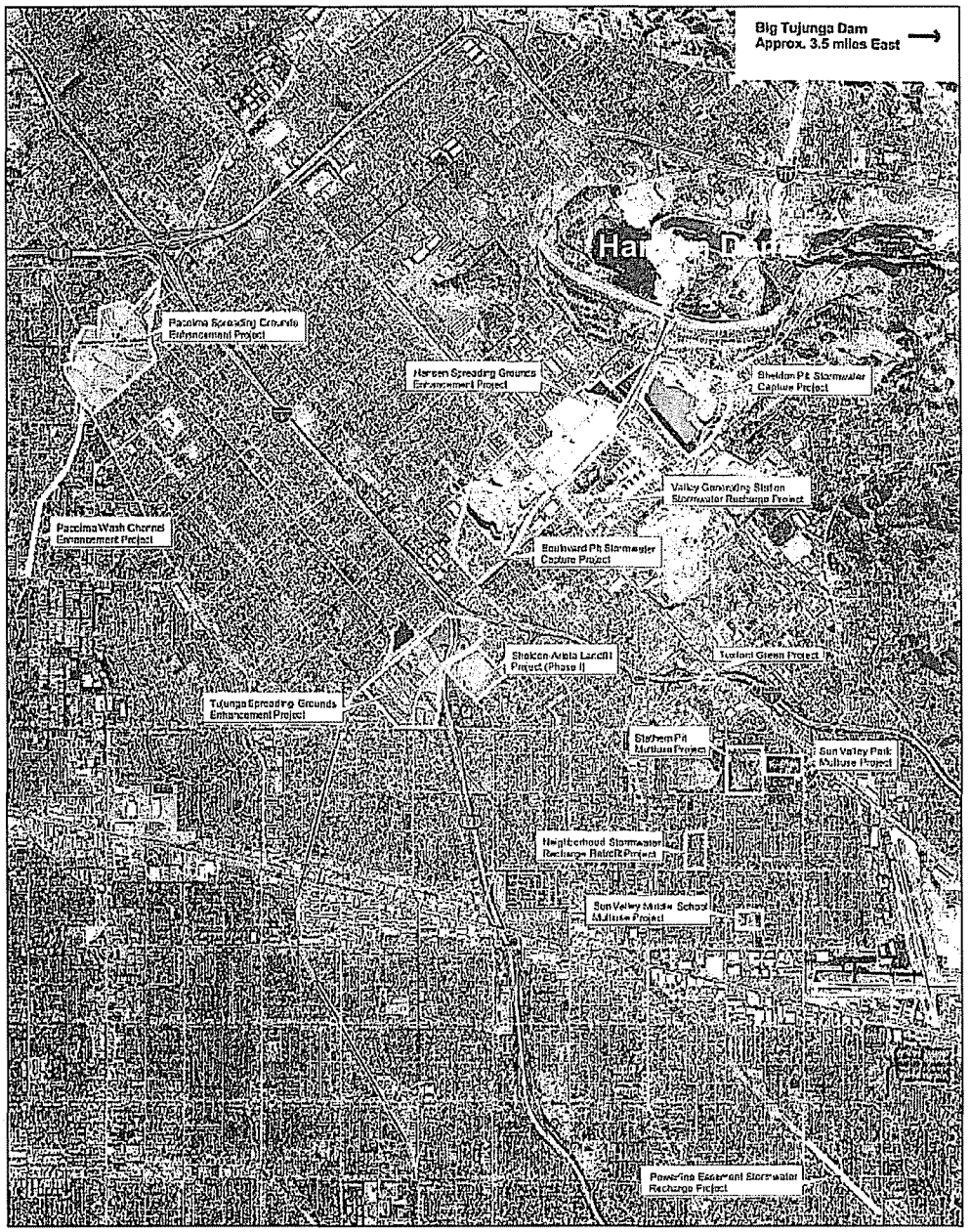
[1] All IRWMP projects are undergoing a reevaluation and reprioritization process as of this printing—May 2008. Also, it remains unclear how much IRWMP funding the entire Southern California region would receive and therefore many of the projects listed here may not receive any funding from this source.

the Los Angeles County Flood Control District. Maintenance is shared between the County and the City.

Department of Water and Power (DWP)

- Big Tujunga Dam Seismic Restoration project (with Los Angeles County Flood Control District);
- Boulevard Pit Stormwater Capture project (under IRWMP funding consideration); Cost: 30-50 million; Funding: Substantial external funding is needed to move this project forward.
- Hansen Spreading Grounds Enhancement project (with Los Angeles County Flood Control District);
- Lower Pacoima Wash Recharge project (with Los Angeles County Flood Control District); Funding: to be determined
- Pacoima Spreading Grounds Enhancement project (with Los Angeles County Flood Control District); Cost: $18 million; Funding: County and LADWP to cost-share a portion of the project—pursuing $10 million in external funding
- Neighborhood Stormwater Recharge Retrofit Project (with the Los Angeles and San Gabriel Rivers Watershed Council); Cost: $2.5 million; Funding: Several City and Governmental Funding Partners—pursuing considerable external funding
- Sheldon-Arleta Landfill Project (with BOS (See below.))
- Sun Valley Powerline Easement Stormwater Recharge project; Cost: $10.5 million; Funding: County and LADWP to cost-share a portion of the project—pursuing substantial external funding
- Tujunga Spreading Grounds Enhancement project (Cost TBD)
- Valley Generating Station Stormwater Recharge project (with Los Angeles County Flood Control District; under IRWMP funding consideration); Cost: $25 to 30 million Funding: County and LADWP to cost-share a portion of the project—pursuing substantial external funding

The locations of these DWP projects are shown on the aerial photograph on the following page.



Locations of existing and proposed DWP Projects, Source: DWP 2007

Mountains Recreation and Conservation Authority (MRCA)

- Lopez Spreading Grounds: Large spreading grounds at the foot of Lopez Dam, includes areas that can function with seasonal inundation; may support active recreation fields or natural wetlands. (within City of Los Angeles)
- 8th Street Property/Pacoima Wash: Partnership between the City of San Fernando and MRCA to construct park on vacant parcels; the land has been acquired and construction documents are 90 percent complete; Permitting has begun. The project will include passive recreation and the community park will treat City of Los Angeles runoff by removing trash and sediment and infiltrating water on site. (within City of San Fernando near border with City of Los Angeles)

- Valley Regional High School: The project involves a large Los Angeles Unified School District high school and the proposed design may be modified to respond to creek/wash adjacency. Opportunities exist for connectivity along and across Pacoima Wash.
- Asphalt Recycling Facility: This is a very large parcel currently housing an industrial asphalt recycling facility. It is one of very few sites with a possibility to provide natural areas on both sides of Pacoima Creek/Wash. (within City of Los Angeles and leased by the City of Los Angeles)
- City of San Fernando Public Works Property (First Street Park): The City's Public Works operations here are relocating to allow for construction of First Street Park. Park planning, being done by the City of San Fernando, is underway. This is a potential peer case for similar developments within the Tujunga Watershed.
- Del Sur Street Property: This is a large parking lot behind a tilt-up construction building, which offers an opportunity for a creekside pocket park with enhanced plantings. (within the City of Los Angeles, under private ownership)
- El Dorado/Telfair Park: This is the longest undeveloped area along the Pacoima Creek; backs-up to new and existing residential development and provides an exceptional opportunity for linear development adjacent the creek.
- Ritchie Valens Park: This is a large existing recreational park, which may be enhanced with new trails and riparian plantings to respond to the adjacent creek—providing water quality treatment (and possible storage), habitat connectivity, and environmental education benefits. Current design needs to be revised to accommodate these potentialities. (within the City of Los Angeles)
- Hansen Dam Recreation Area Parking Lot and Wetlands Restoration: Installation of treatment wetlands to capture and treat wet and dry-weather flows from 3 parking lots. Redesign and resurface portions of parking lot and redirect flow from all 3 lots into a complex of treatment facilities; provide recharge, environmental educational and recreational benefits.

The figure on the following page shows the area in which these MRCA projects would be located.

MRCA Area of Focus, Source: MRCA 2007

The table (below) lists ongoing MRCA projects, their jurisdiction and funding status. Notably, the Tujunga Park in the City of Los Angeles—featuring a park, walking trail and arroyo with infiltration capability—opened to the public on November 7, 2007, serving as a best practice case example of the kind of projects that may be implemented elsewhere in the entire Los Angeles River Watershed.

Potential MRCA Projects	Description	Opportunities	Jurisdiction	Site Control	Status	Funding
Lopez Spreading Grounds	Large spreading grounds at the foot of Lopez Dam	Areas that can function with seasonal inundation. Active recreation fields or natural wetlands.	City of Los Angeles	LA County	Initial Concept Design	Unfunded
8th Street Property	Partnership between City of San Fernando & MRCA to construct park on vacant parcels. Land acquired. 90% construction docs. Permitting begun.	Passive recreation community park will treat City of LA runoff by removing trash and sediment and infiltrating water on site.	City of San Fernando	MRCA for City of San Fernando	Construction Documents	Prop 50 Chapter 8 (pending grant agreement)
Valley Regional High School	Large LAUSD high school.	Educational opportunities. Current proposed design could be modified to respond to creek adjacency	City of San Fernando	LAUSD	Initial Concept	Unfunded
Asphalt Recycling Facility	Industrial asphalt recycling facility. Very large parcel.	One of very few sites with possibility of natural areas on both sides of creek. (Across from City of SF Public Works Property)	City of Los Angeles	Leased by City of Los Angeles	Initial Concept	Unfunded
City of San Fernando Public Works Property (First Street Park)	Public works relocating allow for construction of First Street Park by the City of San Fernando. Funding not secured.	Park planning by the City of San Fernando underway. (See related comment above)	City of San Fernando	City of San Fernando	Concept Design	Unfunded
Del Sur Street	Large parking lot behind a tilt-up construction building	Creekside pocket park with enhanced plantings	City of Los Angeles	Private	Initial Concept	Unfunded
Telfair North Property- (El Dorado)	Undeveloped area along the creek. Letter of intent signed with City of LA (Dept of Recreation and Parks)	Projects requiring linear progression for function or impact.	City of Los Angeles	Private	Initial Concept	Application for Prop K Funding Submitted
Telfair South Property- (Telfair Park)	Longest undeveloped area along the creek. Backs-up to new and existing residential devel. (Parts of 2 parcels)	Projects requiring linear progression for function or impact.	City of Los Angeles	Private	Initial Concept	Unfunded
Tujunga	Wide creek-adjacent vacant land	Park provides walking trail, shade trees, and arroyo with infiltration capability	City of Los Angeles	LA County	Completed-Opened on Nov. 7th	Funded
Tujunga-Upstream	Wide creek-adjacent vacant land	Continuation of existing park north to this location. (see above) Park, walking trail, shade trees, and water infiltration capabilities.	City of Los Angeles	LA County	County Project-Status Unknown	Funding Status Unknown
Hansen Dam-Parking Lot Infiltration	Vacant area of Hansen Dam Park—project involves Recreation Area Parking Lot and Wetlands Restoration	Remediate and infiltrate stormwater runoff from parking lots	City of Los Angeles	Corps Lease to City Rec. and Parks	Initial Concept-MOU w/ LA BOE Pending	Funded
Hansen Dam-Camp Holiday	Vacant area of Hansen Dam Park	Outdoor activities for at-risk youth	City of Los Angeles	Corps Lease to City Rec. and Parks	Initial Concept	Funding Identified

Source: MRCA, October 10, 2007

Below is a photograph of the Tujunga Wash project completed by MRCA in conjunction with the County of Los Angeles, which includes an off-channel arroyo that results in water infiltration.

Source: MRCA, October 2007

The River Project

The Tujunga/Pacoima Wastershed Plan project (completed in April 2008, see: www.tujungawash.org) has compiled a list of projects from a variety of stakeholders within the watershed. Using a computer-based decision support system, the group's Steering Committee considered projects at varying scales:

> The Project Team spent several months meeting with stakeholders at all levels to identify and/or develop over two hundred potential green infrastructure projects that could address watershed conditions...Once these projects were identified, stakeholders were asked to quantify potential project benefits for water supply recharge, water quality improvement, and flood management; and define additional benefits such as public access, open space, habitat, and recreation...A Geographic Information System analyzed criteria such as infiltration potential; park needs; distance from nearest park, trail or storm drain; habitat connectivity; and special districts. A Decision Support System was used to review and

prioritize the projects, considering additional factors such as innovation, watershed awareness, and potential to improve collaboration. After analyzing the results, stakeholders looked also for a range of project types and their geographic distribution throughout the watershed. (*The Tujunga/Pacoima Watershed Plan*, April 2008, p. 4-1)

Twenty-four neighborhood-scale and thirteen watershed-scale represent the Plan's "preferred project scenario." (Ibid.) Large-scale projects are also prominent in the Plan; these are generally projects dealing with significant infrastructure and extensive land areas, such as dams, spreading grounds and gravel pits; many of these are proposed by the City, the County, and the Corps and offer opportunities for collaboration of all three governmental entities.

Bureau of Engineering (BOE)

- Big Tujunga Canyon Road: Following a washout, this project proposes to reconstruct Big Tujunga Canyon Road at its current, temporary road alignment and install a wall to prevent further road erosion by the Wash. The road runs along Big Tujunga Wash in Council District 2. The project is fully-funded at $3.4 million. A temporary road has been constructed and is in service at this time. The permanent road is in its design phase.
- Foothill Boulevard/Tujunga Wash-2033: This project proposes to replace the T-beam superstructure with a box-girder. The proposed bridge has 5-foot sidewalks and a curb-to-curb width of 56 feet. This project also proposes to retrofit the bridge to meet the latest Caltrans seismic requirements. Construction of new architectural barriers and improvements to the bridge approach and transition guardrail will be implemented.
- Glenoaks Boulevard/Tujunga Wash-1181: This project proposes to rehabilitate and widen the existing bridge deck by 20 feet on each side. A similar widening is proposed for an existing County undercrossing structure a few hundred feet west of the bridge. Construction of new architectural barriers and improvements to the bridge street approach are also a part of this project.
- Moorpark Street/Tujunga Wash-0076: The proposed project will widen the bridge deck by 29 feet by adding safety shoulders. A new pile-supported substructure will be required. The approach roadway will be aligned for smoother horizontal curvature. Architectural barriers are also proposed for this project.
- Tujunga Avenue, N/O Strathern Washout: Reconstruct Tujunga Avenue and its abutting downhill slopes at the location of storm damage washout between Goss Street and Strathern Street. This project is fully budgeted for $468,600, but not fully funded. The project will not be fully-funded until it is awarded for construction; it is currently in the design phase.
- Tujunga Avenue/Los Angeles River-1341: The project proposes to replace and widen the bridge deck by 12 feet for a total bridge width of 60 feet. The shoulders and sidewalks will be 5.6 feet and 4 feet respectively. The substructure and approach settlement of the bridge will be inspected, evaluated and/or mitigated.
- Tujunga Canyon/Marcus Avenue Sewer: This project involves the installation of approximately 1831 lineal feet of 8-inch vitrified clay pipe sewer with appurtenant

structures and approximately 932 lineal feet of 6-inch house connection laterals in Tujunga Canyon Boulevard and Marcus Avenue.

- Bradley Avenue/Pacoima Wash-1106: The proposed project will widen the bridge by 7 feet on the south side. The project will improve the bridge's deck geometry, widen the south sidewalk to 5 feet and replace the bridge's existing railings on both sides with ornamental railings. The project has an estimated construction cost of $1.5 million and is currently in its final design phase (awaiting LA County permits).
- San Fernando Bike Bridge/Pacoima Wash-1309—Phase 2: At the request of LADOT, this project encompasses the design and construction of a bicycle bridge over the Pacoima Wash as part of the San Fernando Road Bikeway Phase 2 Project, which lies between the railroad track and San Fernando Road. The bridge is a two-span, through-girder structure, approximately 16 feet wide and 200 feet long, with artistic railings. The Bureau of Street Services (BSS) is responsible for the at-grade bikeway design. The project is fully-funded at approximately $7.3 million. BOE is responsible for the bridge over Pacoima Wash with a construction estimate of $1.5 million. BSS is responsible for the rest of the at-grade bikeway. The bridge design is complete. The project will be ready for bid and award upon LADOT obtaining CALTRANS funding authorization.
- San Fernando Bike Bridge/Pacoima Wash-1309—Phase 3: At the request of LADOT, this project, as a continuation of the San Fernando Road Bikeway Phase 2 Project, which lies between the railroad track and San Fernando Road, encompasses the design and construction of a bicycle bridge over the Tujunga Wash. The Bureau of Street Services is responsible for the at-grade bikeway design. Phase 3 is fully-funded at approximately at $9.5 million. BOE expects to be responsible for the design and construction of the bridge over Tujunga Wash with a construction estimate of $4 million. BOE is ready to proceed with design as soon as LADOT issues the notice to proceed.
- Van Nuys Boulevard/Pacoima Wash-1355: The proposed project will widen the bridge deck by 24 feet and construct a new substructure and improve the bridge's railings, approaches and transition guardrails.
- Osborne Street Bridge Replacement: is at Kagel Canyon Creek in the vicinity of Little Tujunga Wash in CD 7
- Osborne Street Bridge Replacement: The project is fully-funded at $4 million. The existing bridge has been temporarily repaired and is in service at this time. The bridge replacement is in its design phase.

Bureau of Sanitation (BOS)

- Neighborhood Stormwater Recharge Retrofit Project (with the Los Angeles and San Gabriel Rivers Watershed Council); Cost: $2.5 million; Funding: Several City and Governmental Funding Partners—pursuing considerable external funding
- Sun Valley Watershed-Strathern Pit Multi-Use project (with Los Angeles County Flood Control District); Cost: Approximately $23 million; Funding: County ($4.7 million); City of Los Angeles' Proposition O ($17.8 million)

- Sun Valley Middle School Multi-Use project (with Los Angeles County Flood Control District); Cost: Approximately $7 to $10 million; Funding: to be determined
- Sun Valley Park Multi-Use project (with Los Angeles County Flood Control District); Project is complete.
- Sun Valley Watershed-Tuxford Green project (with Los Angeles County Flood Control District);
- Sheldon-Arleta Landfill project (with DWP): will renovate the gas collection system at the landfill in order to restore the historic spreading capacity of the Tujunga Spreading Grounds (which are presently restricted to operating at 40 percent capacity)—later phases propose construction of a 40-acre park on top of the closed landfill; Cost: Phase I: approximately $9.5 million: Phase II and III approximately $30 million; Funding: Phase I: LADWP ($5.3 million); City of Los Angeles' Proposition O ($3 million); External Funding ($1.2 million)
- Aliso Wash - Limekiln Creek Confluence Restoration Project: Capture, clean and infiltrate runoff in public green spaces; create riparian woodland and wetland habitat; education; removal of exotic plants, trail improvements and amenities.
- Catch Basin Opening Screen Covers to Meet 30% Trash Reduction Milestone - Phase III: This project will install catch basin opening screens in medium and low trash generation areas of the City to remove trash and debris from stormwater and urban runoff. This project will assist the City in meeting the goals of the Trash TMDL.
- Modeling of the Upper Reaches of the Tujunga Wash
- Water Quality Compliance Master Plan - The development of the Water Quality Compliance Master Plan for Urban Runoff (Council Motion 07-0663) started in March 2007 and has the objective of developing strategic guidelines for maximizing pollution reduction from stormwater to meet water quality regulations. The Master Plan proposes a watershed-based approach for future stormwater management with an implementation strategy consisting of the following three initiatives: the Water Quality Compliance, Citywide Collaboration and Public Outreach Initiatives. The implementation strategy builds on existing plans and efforts to improve water quality. Key elements in the implementation strategy include: source control and public outreach, implementation of green solutions and multiple-benefit projects and the re-use of urban runoff for groundwater recharge and irrigation.

Department of Recreation and Parks (RAP)

RAP operates, maintains, or leases, over 1,700 acres of land in the Tujunga Watershed in order to provide recreation and park services for City residents and visitors.

Some of these parks and facilities, due to their locations on, or adjacent to, the Tujunga and Pacomia Washes, provide ideal locations for stormwater infrastructure projects. As one of the largest landowners in the Tujunga Watershed, RAP will play an important role in the City's efforts to improve the watershed.

The table on the following page lists these parks and facilities.

Park Name	Acres
Andres Pico Adobe Park	2.13
Blythe Street Park	1.10
Brand Park	19.00
Branford Recreation Center	13.60
Carey Ranch	23.81
David M. Gonzales Recreation Center	6.80
Devonwood Park	4.88
Hansen Dam Bluffs Park	2.04
Hansen Dam Recreation Area	1,451.92
Hartland Mini Park	0.12
Howard Finn Park – Community Garden	2.00
Hubert H. Humphrey Memorial Park	9.52
Kagel Canyon Park	3.50
Kittridge Mini Park	0.12
Lake View Terrace Park	11.17
Little Landers Park (Bolton Hall Museum)	1.16
McGroarty Park	16.16
Moorpark Park	2.00
North Hills Community Park	3.52
Oro Vista Park	8.96
Panorama Recreation Center	6.00
Ritchie Valens Park	24.44
Roger Jessup Park	14.82
Sepulveda Recreation Center	10.62
Sunland Recreation Center	16.45
Sylmar Recreation Center	19.65
Tobias Avenue Park	1.61
Tujunga Greenbelt & Pedestrian Bridge	11.00
Tujunga Infiltration Galleries	51.00
Valley Glen Community Park	5.72
Verdugo Hills Pool	0.69

Source: City of Los Angeles Department of Recreation and Parks, January 2008

Further, as part of RAP's ongoing efforts to design sustainable parks and facilities, all future RAP parks and/or park developments in the Tujunga Watershed (and the City) will be designed with appropriate stormwater BMPs and water conservation/efficiency measures. Sustainable improvements to the City's park system will have a positive environmental impact that will be felt in communities and neighborhoods across the City.

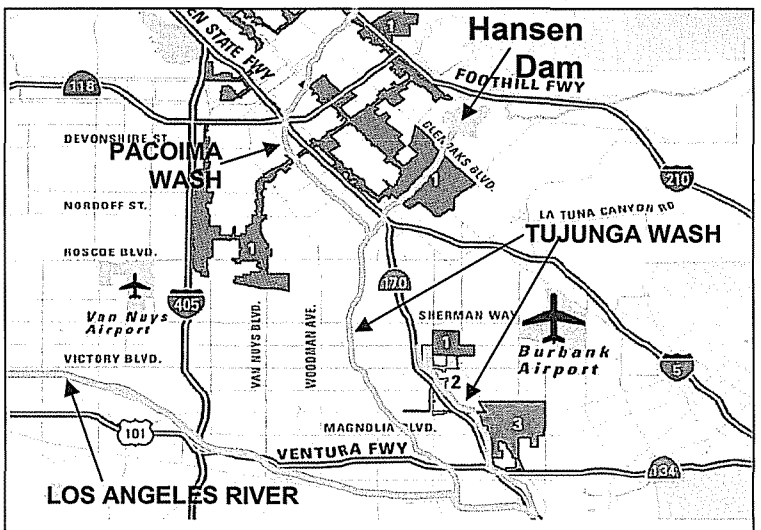
Community Redevelopment Agency (CRA)

Three CRA project areas intersect the Tujunga and Pacoima Washes in the Tujunga Watershed (See map on the following page.) Because of this and because of the CRA's commitment to spearhead the City's River Revitalization Corporation, an unprecedented opportunity exists for the City to link its economic development and environmental improvement goals through a comprehensive, regional approach. By improving the environment of the Tujunga Watershed along with its redevelopment efforts, the City

can set in motion a sustainable, smart growth agenda that will not only benefit the local communities in the San Fernando Valley, but will benefit the City's downstream communities as well and result in more responsible water resource management practices.

Coordination of projects within the East Valley would support the City's commitment to restore respect to the Los Angeles River and revitalize its communities. Through upcoming visioning processes for its project areas, CRA efforts can incorporate LARRMP-compatible community development goals, including environmental education, water conservation and storage, water quality improvement, recreation, habitat establishment and connectivity, and wider ecological restoration.

Through the River Revitalization Corporation, the CRA can also provide a critical function of building public trust and participation in multi-benefit projects by bringing a variety of new stakeholders into the public water resource management dialogue. Examples of multi-benefit and Low Impact Development (LID) projects may include greening commercial, industrial, and affordable housing communities by providing native, drought-tolerant, California-friendly, and riparian (where appropriate) landscaping, encouraging water conservation and storage in structures and landscaping, developing a River Improvement Overlay for the Tujunga and Pacoima Washes, using bioswales and other kinds of water quality best management practices near streets, paths and in parking areas, encouraging LEED (Leadership in Energy and Environmental Design)-compliant building, creating green streets, reducing the amount of new impervious surfaces (such as parking lots) to promote infiltration, and planning for ecological connectivity of waterways—particularly the Pacoima and Tujunga Creeks/Washes and the Los Angeles River.



1: Northeast San Fernando Valley
2: Laurel Canyon
3: North Hollywood

Source: CRA/LA 2007; Waterways added—locations are approximate.

The CRA's *East Valley Region Office Activity Report: 1st Quarter 2007* identifies many existing and upcoming redevelopment projects within the three East Valley project areas, which include: the Earthquake Disaster Assistance Project for portions of Council Districts 7, 6, and 2; the Earthquake Disaster Assistance Project for the Laurel Canyon Commercial Corridor; and the North Hollywood Redevelopment project. The City has an opportunity to examine the feasibility of coordinating implementation of these redevelopment activities with the various water resource management projects outlined earlier in this report.

Pursuant to a Council Motion (Council File No. 07-1208) introduced by Councilmembers Richard Alarcón (Council District 7) and Tony Cardenas (Council District 6), CRA has initiated a visioning process for its redevelopment project area, which encompasses communities in the northeast San Fernando Valley. The Agency aims to commence the "Strategic Plan/2015 Visioning Project" in early 2008, facilitating a community engagement process among key stakeholders to define a broad vision and strategic plan for redevelopment in a wide range of areas, including land use planning, economic development, transportation and urban design. As part of this effort, watershed improvement opportunities could be considered, recognizing potential linkages between the Pacoima and Tujunga Washes and Los Angeles River revitalization efforts.

Other potential connections in the northeast San Fernando Valley redevelopment project area may exist as follows:

- Develop project implementation principles that are supportive of Creek, Wash, and River restoration and revitalization efforts, including the Tujunga/Pacoima Wash Management Plan and Pacoima Wash Greenway Master Plan, and which work toward an overall reduction in impervious surfaces in the Tujunga Wash Watershed;
- Apply greening with habitat benefits in coordination with brownfield redevelopment (e.g., sites that are vacant or underutilized, so that they do not attract illegal dumping, and plantings may serve to clean the soil through modified natural attenuation while awaiting redevelopment);
- In the rehabilitation and redevelopment of projects, orient structures toward waterways and provide for public access to them, with green, open space amenities directed along and toward waterways;
- Incorporate environmental education in all kinds of projects (for workers and tourists as well as residents);
- Identify areas for subterranean water storage and/or infiltration; and
- Encourage the attraction of eco-industrial development.

A demonstration project Concept Report can initially be prepared that is focused on the northeast San Fernando Valley project area. The Laurel Canyon and North Hollywood project areas (also within CRA's East Valley Region) may offer similar potential connections between redevelopment and multi-benefit revitalization efforts, and could be the subjects of future analyses.

It is noteworthy that there are several existing large facilities clustered in the Pacoima–Sun Valley-Sunland areas, located either within or directly adjacent to the Pacoima/Panorama City project area, and within the natural paths of the Tujunga and Pacoima Washes, including: Hansen Dam; Hansen Spreading Grounds; Branford Spreading Grounds; Tujunga Spreading Grounds; Pacoima Spreading Grounds; Bradley Landfill; Sheldon–Arleta Landfill; Branford Landfill (closed); Lopez Canyon Landfill; Cal Mat Pit; and Vulcan Mineral Plant. Also, a portion of the redevelopment project area lies within a geographical area declared by the City Council in July 2005, as an "Environmental Justice Improvement Area." (See Council File No. 03-2529.) The Tujunga Wash bisects a substantial portion of the redevelopment project area between Glenoaks Boulevard and the Interstate 5 Freeway. A project Concept Report articulating the linkages between redevelopment and multi-benefit revitalization would help guide future coordination and set an important precedent for replicating similar projects in other areas.

RECOMMENDATIONS

This report demonstrates that the City's East Valley region is a priority for both economic redevelopment and water resource management (particularly through flood control, water conservation, and water quality improvement). It also illustrates that a variety of separate efforts taking place in the East Valley could benefit from greater regional coordination. Now that the City has endorsed the *Los Angeles River Revitalization Master Plan* and tasked the CRA with implementation of its recommended River Revitalization Corporation, and because the CRA will be planning a variety of new efforts in East Valley Region, it is uniquely well-suited to coordinate and implement key multi-benefit revitalization measures within the Tujunga Watershed.

Therefore, future CRA seed funding resources may be appropriate to:

- Research and Identify Existing, Planned, In-Progress, and Anticipated Future Projects within the Tujunga Wash Watershed;
- Identify Key Locations and Opportunities to Build Upon and/or Collaborate with Existing, Planned, In-Progress, and Anticipated Future Projects within the Tujunga Wash Watershed;
- Propose Key Projects; and
- Articulate a Comprehensive Project Design and Implementation Strategy.

In support of these objectives, it is recommended that the City Council:

(1) Instruct CRA to coordinate with the City's Los Angeles River Project Office through its monthly Interdepartmental Task Force on the development of a demonstration project Concept Report related to visioning efforts in the Earthquake Disaster Assistance Project for portions of Council Districts 7, 6, and 2 within the Tujunga Wash Watershed, consistent with ongoing planning efforts;

(2) Request the CRA to work with DWP to facilitate community stakeholder engagement on issues related to redevelopment and its linkages with sustainability and water resource planning through its "Strategic Plan/2015

Visioning Project" in the redevelopment project area encompassing the northeast San Fernando Valley; and

(3) Request the CRA to consider including in its future work program development of project Concept Reports for other redevelopment project areas in the East Valley Region.

Additionally, because the Tujunga Wash is a significant tributary of the Los Angeles River and its watershed is a significant sub-area of the larger Los Angeles River Watershed—intersecting five Council Districts—and because a variety of important stakeholders have been working to implement multi-benefit projects within the Tujunga Watershed for many years, it is important that the City establish a longer-term institutional strategy for coordinating its efforts at planning for and implementing projects that result in watershed-wide benefits.

In support of this objective, it is recommended that the City Council initiate a planning effort to make sure that regional coordination in the Tujunga Watershed results in projects that consider topography and the flow of water—irrespective of agency boundaries—and therefore:

(4) Instruct the City's River Project Office to work with the City Administrative Officer (CAO) to identify funds for an additional three concept reports for projects that are within the Tujunga Wash Watershed, but fall outside of CRA project areas, and to work with the Bureau of Sanitation (BOS) regarding the development and funding of the projects' water quality elements; and

(5) Instruct the City's River Project Office to work with the City Administrative Officer (CAO) to identify planning funds to develop a Tujunga Wash Action Plan Compendium Document to the Los Angeles River Revitalization Master Plan that builds upon existing planning efforts, to conduct a related public outreach program, and to coordinate with the Department of Water and Power (DWP) on the potential for establishing a Tujunga Watershed-based coordinating authority.

PARTNERS AND FUNDING

Initial funding for projects along the Tujunga Wash could come from existing CRA resources and are expected to potentially be augmented by the same funding sources intended for other projects in the region. These funds may include: the CalFed Bay Delta Program, which currently funds the *Tujunga Watershed Project* and the *Sun Valley Watershed Project*, planning funds from current State bonds (e.g., Proposition 84), a partnership with the County's Flood Control District, U.S. Army Corps of Engineers Ecosystem Restoration funds (through the Water Resources Development Act of 2007), and/or transportation mitigation funding (e.g., intended to address contaminated runoff). It should be noted that these funds are made available through highly-competitive grant processes and, if awarded, are usually disbursed in small amounts.

An overview of the recommended initial funding strategy is provided in the table on the following page.

POTENTIAL TUJUNGA WASH REVITALIZATION FUNDING*~	
Description	**Approximate Amount**
CRA CONTRIBUTION^ Pacoima/Panorama City Project Area • Project Concept Report 1	$50,000
CITY MATCHING FUND CONTRIBUTION To be identified for 3 additional projects in areas outside the CRA Project Area boundaries • Project Concept Report 2 • Project Concept Report 3 • Project Concept Report 4	 $50,000 $50,000 $50,000
EXTERNAL PLANNING FUND CONTRIBUTION • Development of a Tujunga Wash Action Plan compendium document to the Los Angeles River Revitalization Master Plan and related public outreach program • Research and recommendations regarding the establishment of a single Tujunga Watershed-based coordinating authority.	 $150,000 $50,000
TOTAL	$400,000

*Initial funds for projects may be augmented in the future with resources from the following City departments and agencies with responsibilities for water resource management: the Department of Water and Power (water and power conservation); the Department of Recreation and Parks (recreation facility operations and maintenance); the Bureau of Sanitation (watershed management, particularly TMDL compliance); the Bureau of Engineering (Proposition K grants); and Other (City General Fund contributions).

~Initial funds for projects may be augmented in the future with resources from external groups and agencies, including the California Coastal Conservancy (State); Proposition A (County); Proposition 12 (State); Proposition 50 (State); Proposition 84 (State); the County Flood Control District; through the Integrated Regional Water Management Plan (IRWMP)(State); the Santa Monica Mountains Conservancy and Mountains Recreation and Conservation Authority (State); the CalFed Bay Delta (Joint State/Federal) Partnership; and the U.S. Army Corps of Engineers (Federal).

^This contribution may be expended as part of the larger "Strategic Plan/2015 Visioning Project" in the Pacoima/Panorama City Redevelopment Project Area.

Subsequent to completion of project concept reports, additional future expenses are expected to include completion of at least one grant application per project along with a matching fund contribution. An example of these costs is provided in the table on the following page.

EXAMPLE OVERALL PER PROJECT COST*	
Item	**Cost**
Typical Project Concept Report	$50,000
Two Grant Applications (More than one grant application is usually necessary to secure adequate funding.)	$20,000
Matching Funds (These would vary depending upon the scope of the project, e.g., the acreage and type of components. Assuming a 1 acre project—at a cost of $1.5 million for construction of a multi-benefit park—with an additional 35% for implementation costs (including design and construction management), this example would equal a total project cost of $2,025,000. A 50% match of this total cost would equal $1,012,500—as reflected to the right; however matching requirements vary.)	$1,012,500
Approximate per project total cost	**$1,082,500**

*Excludes maintenance costs.

RESOURCES

Books

Eden by Design: The 1930's Olmstead-Bartholomew Plan for the LA Region (2000), Greg Hise and William Deverell
LA River Studio/Book, Harvard Study (2002)
Rio LA: Tales from the Los Angeles River, Patt Morrison (2001)
Supernatural Urbanism, LA River Studio, Harvard University Study (2003)
The Los Angeles River: Its Life, Death and Possible Rebirth, Blake Gumprecht (2001)

Studies and Reports

An Open Space Study of Northeast Los Angeles (Fall 2003), Conducted by students in the Advanced Environmental Analysis and Planning course, University of California, Los Angeles (UCLA) Extension Landscape Architecture Program
Arroyo Seco Watershed Restoration Feasibility Study (May 2002), North East Trees and the Arroyo Seco Foundation
Beneficial Uses of the Los Angeles and San Gabriel Rivers, Heather Trim
Boyle Heights, Los Angeles, CA: A Los Angeles Design Action Planning Team Report (May 1990), Department of City Planning and The Urban Design Advisory Coalition
California Coastal Conservancy's Watershed Planning Guide, (http://www.coastalconservancy.ca.gov/Publications/ws_planning_guide.pdf)
California Watershed Assessment Manual, (http://www.cwam.ucdavis.edu/)
Common Ground from the Mountains to the Sea, Watershed and Open Space Plan/ San Gabriel and Los Angeles Rivers, The California Resources Agency, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and the Santa Monica Mountains Conservancy
East Valley Regional Office Activity Report: 1st Quarter 2007, Community Redevelopment Agency of Los Angeles. Available online at:
El Pueblo Lake Initial Concept Study, City of Los Angeles Bureau of Engineering
Headworks Ecosystem Restoration Feasibility Progress Update (2004), U.S. Army Corps of Engineers and the Department of Water and Power
http://www.crala.net/internet-site/Projects/Regional_Areas/upload/activity_report.pdf.
Los Angeles River and Biological Habitat Assessment (April 2004), U.S. Bureau of Reclamation Natural Resources Group
Los Angeles River Bikeway and Greenway Planning Study, North East Trees
Los Angeles River Bridges Recording Project, National Park Service, City of Los Angeles Bureau of Engineering
Los Angeles River Cornfields Area Environmental Restoration Study, U.S. Army Corps of Engineers
Natural Resource Projects Inventory, (http://www.ice.ucdavis.edu/nrpi/)
Our Future Neighborhoods: Housing and Urban Villages in the San Fernando Valley (July 2003), Economic Alliance of the San Fernando Valley
Second Nature, Adapting LA's Landscape for Sustainable Living, TreePeople
Strategic Plans for Lincoln Heights (draft), Site Planning and Development Studio (UP 273), Department of Urban Planning, School of Public Policy and Social Research, University of California, Los Angeles
Survey of Invasive Non-Native Plants, Primarily *Arundo Donax*, along the Los Angeles River and Tributaries (April 2002), Bill Neill, Riparian Repairs

Sustainable Conservation and the Natural Resources Conservation Service permit streamlining project, (http://www.nrcs.usda.gov/partners/)
Taylor Yard Multiple Objective Feasibility Study, Coastal Conservancy, (CD & Brochure)
Taylor Yard Public Consensus Plan, prepared jointly by City of Los Angeles Department of Recreation and Parks and California State Parks
The River Through Downtown, Friends of the LA River (FoLAR), et al.
The Science and Biology of the Los Angeles River Conference (May 2004), City of Los Angeles, Bureau of Sanitation, Watershed Protection Division

Plans/Projects

A Common Thread Rediscovered, San Gabriel River Corridor Master Plan, LA County Department of Public Works, Public Review Draft 2004
Arroyo Seco Parkway Corridor Management Plan, a rehabilitation and preservation plan for Southern California's most historic road (February 2002), The National Trust for Historic Preservation, Rural Heritage / Historic Roads Program
City of Los Angeles Integrated Plan for the Wastewater Program, Available online: (http://www.lacity.org/san/ipwp/)
Conservation Plan (December 1973), Department of City Planning
Los Angeles County Los Angeles River Master Plan Update (newsletter, includes lists of projects completed and underway)
Los Angeles River Landscaping Guidelines and Plant Palettes, LA County
Los Angeles River Master Plan, Los Angeles County Department of Public Works, Available online: http://www.ladpw.org/wmd/watershed/LA/LA_River_Plan.cfm
Long Beach RiverLink, Connecting City to River, Kris Barker, et al., Available online: http://www.longbeachriverlink.org/study.htm
Los Angeles River Greenway: Sherman Oaks to Studio City, Master Plan
Los Angeles River Landscape Maintenance Manual: http://www.ladpw.org/wmd/watershed/LA/Maintenance/LARmpMainManual.pdf
Los Angeles River Revitalization Master Plan (April 2007), City of Los Angeles Department of Public Works, Bureau of Engineering
Pacoima Wash Greenway Master Plan (June 2004), City of San Fernando
Rehabilitation of the Hansen Dam Lower Lakes, U.S. Army Corps of Engineers, Los Angeles District
Rim of the Valley Trail Corridor Master Plan (June 28, 1990), the Santa Monica Mountains Conservancy, prepared by Dangermond & Associates.
The State of the Tujunga: An Assessment of the Tujunga/Pacoima Watershed (October 2006), The River Project, CalFed Bay Delta, and The Tujunga Watershed Project.
Urban Water Management Plan (2000), City of Los Angeles, Department of Water and Power

Miscellaneous

2004 City of Los Angeles City Council Ad Hoc Committee on the Los Angeles River Update: BMP Summary Fact Sheets, City of Los Angeles Bureau of Sanitation, Watershed Protection Division
City of Los Angeles Landscape Ordinance
Development Best Management Practices Handbook, City of Los Angeles Bureau of Sanitation, Watershed Protection Division

Glendale Narrows Riverwalk Project (April 2003), Pamela Burton & Company, Landscape Architecture, City of Burbank http://www.ci.burbank.ca.us/
Los Angeles River Emergency Response Signage Proposal, City of Los Angeles Bureau of Engineering
Los Angeles River Flyover, Los Angeles Department of Water and Power (DVD)
Los Angeles River Public Outreach Committee, Los Angeles River Public Outreach Efforts, (spreadsheet), City of Los Angeles Bureau of Sanitation
Los Angeles River Public Education Program Outline, City of Los Angeles Bureau of Sanitation Watershed Protection Division
Los Angeles River: Linking Us Together, City of Los Angeles Bureau of Sanitation Watershed Protection Division (DVD)
LARRMP Proposed Project Fact Sheets (various projects along the River), City of Los Angeles Bureau of Engineering (2007)
Seeking Streams: A Landscape Framework for Urban and Ecological Revitalization in the Upper Ballona Creek Watershed, Jessica Hall, et al., sponsored by the City of Los Angeles Bureau of Sanitation Watershed Protection Division
U.S. Army Corps of Engineers Operation and Maintenance Manual
U.S. Army Corps of Engineers, Los Angeles District Outreach Program, City of Los Angeles Workshop (CD)
Watershed-University/Arroyo Seco Notebook, North East Trees, et al.

Websites

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Arroyo Seco Foundation, http://www.arroyoseco.org/
California State Parks, www.parks.ca.gov
Canada Geese Project, http://www.canadageese.org/
City of Los Angeles Stormwater Program, http://www.lacity.org/SAN/wpd/index.htm
City of Los Angeles, City Council Ad Hoc Committee on the Los Angeles River, http://www.lariver.org
City of Los Angeles, Community Redevelopment Agency, www.lacity.org/cra/projects
City of Los Angeles, Department of Water and Power, www.ladwp.com/waterprojects
Coastal Conservancy, www.coastalconservancy.ca.gov
County of LA Department of Public Works, http://ladpw.org/wmd/watershed/LA/
Friends of the LA River, http://www.folar.org/
Heal the Bay, http://www.healthebay.org/
International Rivers Network, http://www.irn.org/index.html
Livable Places, http://www.livableplaces.org/
Los Angeles and San Gabriel Rivers Watershed Council, http://www.lasgrwc.org/
Los Angeles Conservation Corps, www.lacorps.org
Los Angeles County Bicycle Coalition, http://www.labikecoalition.org/
Los Angeles Regional Water Quality Control Board (LA River Watershed):
Los Angeles River Center and Gardens, http://smmc.ca.gov/
Los Angeles River Center and Gardens, http://smmc.ca.gov/Riv/RivCenter.htm
Los Angeles River Connection, http://www.lalc.k12.ca.us/target/units/river/riverweb.html
Los Angeles River Master Plan (1996), Sign and Landscape Guidelines, http://www.ladpw.org/wmd/watershed/LA/LA_River_Plan.cfm
Los Angeles River Project, Occidental College, www.oxy.edu/lariver
Mountains Recreation and Conservation Authority: www.mrca.gov

National Audubon Society, http://www.audubon.org/
National Park Service, www.nps.gov
Navigate LA Website, LA River Revitalization Layer, http://navigatela.lacity.org/
North East Trees, http://www.northeasttrees.org
River Network, http://www.rivernetwork.org/
Santa Monica Bay Keeper, http://www.smbaykeeper.org/
Santa Monica Mountains Conservation, www.smmc.ca.gov
Sun Valley Watershed Stakeholders, www.sunvalleywatershed.org
The Arroyo Seco Foundation, http://www.arroyoseco.org/
The River Project, http://www.theriverproject.org/
The Sierra Club, http://www.sierraclub.org/
Tree People, http://www.treepeople.org/
U.S. Army Corps of Engineers, Los Angles District, www.usace.army.mil
U.S. Bureau of Reclamation, www.usbr.gov
Village Gardeners, (818) 981-1606
www.swrcb.ca.gov

Peer Cases from Other Cities

City of Napa-Downtown Riverfront Urban Design Plan
Guadalupe River Park, San Jose Redevelopment Agency, et al. (http://www.sjredevepopment.org/Guadalupeplan.pdf)
Master Plan for Buffalo Bayou and Beyond, Buffalo Bayou Partnership, City of Houston, et al. (http://www.buffalobayou.org/masterplan.html)
Rio Salado Park Master Plan, Tempe Arizona
Santa Rosa Creek Photos, BOE/Architectural Division (CD)
SARIP Concept Design Guidelines, San Antonio River Improvements Project (CD)