

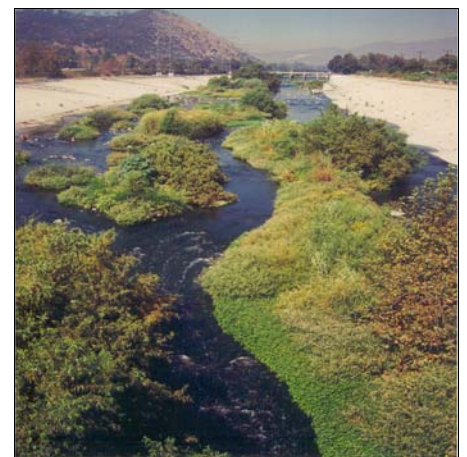
## Section Background

Prior to the creation of the Los Angeles River Watershed Section, many catastrophic and triumphant milestones occurred in the watershed. Major flood events at the turn of the century caused many deaths and prompted the Los Angeles River to be engineered into a 51-mile channelized waterway by the 1950's. This engineering feat has stirred controversy between environmentalists and technical experts. In the early 1990's, this controversy escalated when the Los Angeles County Drainage Area (LACDA) Study revealed that the River parapet walls, throughout Long Beach, would need to be heightened to alleviate flooding and, in turn, reduce insurance requirements for neighboring residents (LACDA project). The opposition required Public Works and the Army Corps of Engineers (Corps) to consider alternate resolutions to reduce flooding, but it was still determined that the LACDA project was the most feasible alternative and the project was completed in 2002.

The LACDA controversy was a major step towards watershed management conscientiousness. As a result, the Corps required the development of a stormwater management plan, as part of LACDA, to ensure that future LACDA projects may be avoided. The plan will identify

projects that would address the River's future water conveyance demands.

Watershed management, for the Los Angeles River Watershed, was also initiated and influenced by the Sun Valley Watershed project, the Los Angeles River Master Plan, and the Arroyo Seco Restoration Study. Prior to the formation of this Division, stakeholder groups were well established for each of these projects. Sun Valley stakeholders worked together to evaluate alternate options, other than a typical storm drain system, to alleviate flooding. Since the Los Angeles River Master Plan (LARMP) adoption in 1996, stakeholders have collaborated on a common River revitalization effort. Arroyo Seco stakeholders have taken this revitalization effort a step further and are interested in removing the concrete to restore the Arroyo Seco.



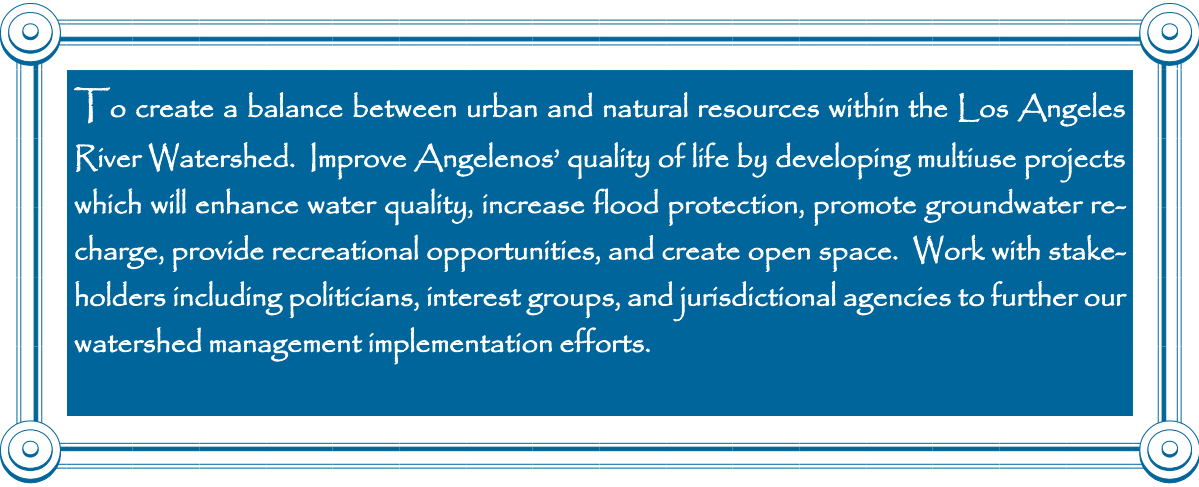
The Los Angeles River Watershed Section initially focused on Public Works' already established collaboration with stakeholders on the previously mentioned projects involving 1) an effort to restore or

revitalize the channels within the watershed and 2) a more conscientious effort to consider watershed management alternatives.

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## Mission

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To create a balance between urban and natural resources within the Los Angeles River Watershed. Improve Angelenos' quality of life by developing multiuse projects which will enhance water quality, increase flood protection, promote groundwater recharge, provide recreational opportunities, and create open space. Work with stakeholders including politicians, interest groups, and jurisdictional agencies to further our watershed management implementation efforts.

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## Accomplishments

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### Established Strong Stakeholder Relationships

This Section gained further support from existing stakeholder groups, while developing projects for the Sun Valley and Arroyo Seco Watersheds, and the Los Angeles River corridor. A successful partnership with North East Trees, a non-profit organization, was established to complete the Arroyo Seco Watershed Restoration Feasibility Study. Issues were resolved between Public Works and other agencies to facilitate the development of projects such as MRCA's Studio City Outdoor Classroom project, North East Trees' Taylor Yard to Sunnynook project, and the City of Los Angeles' Studio City Greenway. The Section supported the Board offices by representing the watershed management requirements when reviewing projects such

as the proposed Public Works' Tujunga Wash Trunkline and the City of Los Angeles' Residential Special Materials Facility.

The Section participated in technical advisory committees to review proposed projects and offer recommendations for integrating watershed management alternatives. Specifically, the Section assisted with planning, the development of what could be the largest wetlands creation along the Los Angeles River, by linking Dominguez Gap and the DeForest Restoration Feasibility Study. The Section facilitated stakeholder meetings and development of a concept for the Phase II multiuse development of the Rio Hondo and San Gabriel Basin Spreading Grounds to integrate landscaping and recreational opportunities. Technical expertise to constituents during the planning phase of projects such as the

North East Trees' South Gate Riparian Restoration Project, North East Trees' Los Angeles River Bikeway and Greenway Planning Study, Los Angeles Theatre Works' River Headwaters Project, and the Coastal Conservancy's Taylor Yard Feasibility Study. Lastly, the Section participated in the development of Phase I of the City of Los Angeles' Integrated Plan for the Wastewater Program and provided watershed perspectives for the initial framework of the City's Floodplain Management Plan.

## Initiated Watershed Management Projects

The Section proposed watershed management alternatives for various concepts which included: covering Rubio Wash; covering and landscaping the open channel of Project 461; adding Best Management Practices (BMPs) to Flood Maintenance Division (Longden Yard); addressing water quality and maintenance needs in the Calabasas Creek Low Flow Modification; resolving flooding issues along Townsend Avenue, Aranbe Avenue, and DDI22; and restoring the Central Branch of Tujunga Wash.

The Section implemented and managed programs that assess the watershed's water quality conditions. The development of the Los Angeles River Trash and Debris Collection System as an innovative pilot demonstration test to capture urban trash and debris at the mouth of the Los Angeles River was managed by the Section. A water quality sampling program in Sun Valley was also organized and managed.

In addition, the Section worked on the development of projects such as the Public Works Headquarters' parking lot project which considers watershed management features; the Tujunga Wash Restoration

project which involves the Mountains Recreation and Conservation Authority and Supervisorial District 3; Valleyheart Greenway between Laurel Canyon Boulevard and Radford Avenue in Studio City; Ernie's Walk Expansion; and a cooperative agreement for the development of the Rio Hondo Spreading Grounds Proposition A Bike Path.

## Facilitated Project Implementation

The Section identified and implemented resources to facilitate the implementation of projects and to promote outreach with the stakeholders. For example, worked with the Corps and 12 Advisory Task Force members to complete the compilation of over 140 layers of GIS to facilitate the development of pilot projects for the Los Angeles/San Gabriel Rivers Watershed Feasibility Study.

Web resources were used to improve communication with the stakeholders and a website was created to document the progress of the Sun Valley project. Information was organized about the Los Angeles River Watershed and stakeholders on WMD's website. Publishing newsletters for the Los Angeles River and Sun Valley brought awareness to this Section's efforts. Furthermore, this Section presented the LARMP goals and implementation progress at the 2002 Water Environment Federation Conference.

## Applied for Grants to Implement Projects

To leverage Flood Control funds, the Section applied for Propositions 12 and 13 grants to implement projects. For the Proposition 13 Nonpoint Source

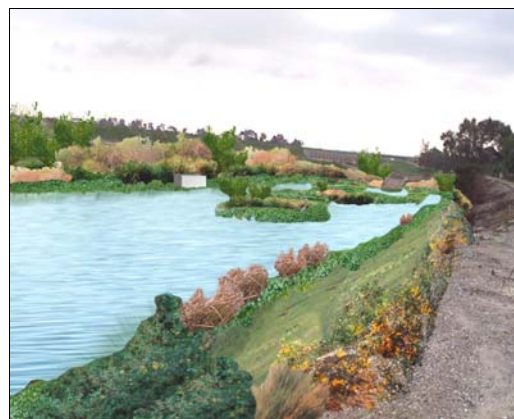
Pollution Control Program, funds were applied for the Sun Valley Watershed Park Pilot Demonstration Project and the Headquarters' Parking Lot Stormwater BMP Demonstration Project. For the Proposition 13 CALFED Drinking Water Quality Program, funds were applied for the Dominguez Gap Enhanced Groundwater Recharge Project and the Sun Valley Watershed Park Pilot Demon-

stration Project. A Proposition 12 grant application was applied from the Resources Agency for \$5 million for the Tujunga Wash Restoration Project.

Thus far, this Section has received \$430,000 in funding from the CALFED Program for the development of the multiuse Sun Valley Watershed Management Plan.



EXISTING DOMINGUEZ GAP



PROPOSED DOMINGUEZ GAP WETLANDS

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## Projects in the Los Angeles River Watershed

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### Arroyo Seco

The Arroyo Seco is one of ten model watersheds designated in California by the Wayne Watershed Act (AB 2117). The Arroyo Seco Watershed Restoration Feasibility Study was initiated by North East Trees and the Arroyo Seco Foundation in October 2000, with funding from the California Coastal Conservancy and Santa Monica Mountains Conservancy.

Public Works has been an active partner in this study since its inception. Public Works provided in-kind services including hydrologic analysis of the 47 square mile watershed, as well as extensive technical review and recommendations. The Restoration Feasibility Study was completed in May 2002, and has

laid an effective framework for future restoration efforts that focus on 1) restoration of the natural hydrologic functioning of the watershed, 2) management of water resources and water quality improvement, 3) habitat restoration, and 4) improved recreational opportunities and open space.



Funding for continued planning efforts and public outreach has been acquired through Proposition 13 and CALFED grants. Also, the Corps has initiated a reconnaissance study for the watershed that will likely bring federal funding to the project.

As part of these continuing efforts, Public Works is investigating the feasibility of concrete channel removal and stream restoration in Pasadena's Lower Arroyo Park. Public Works also serves as the lead

local sponsor for the Corps Study, and actively participating in the Council of Arroyo Seco Agencies.



## Los Angeles River Master Plan

Public Works has been responsible for implementing the Los Angeles River Master Plan, since its adoption by the Board of Supervisors in 1996. Although no funding was allocated toward the Master Plan implementation in 1996, the Master Plan has succeeded in attracting over \$40 million in river projects, to date. Furthermore, Public Works has committed to implement approximately \$2 million in river projects per year.

The Master Plan identifies opportunities for aesthetic, recreational, and environmental resource enhancements along the Los Angeles River and Tujunga Wash, while recognizing the River's primary purpose for flood protection. In addition to constructing river developments, Public Works is developing signage, landscaping, and maintenance guidelines for river stakeholders to use when developing a river project to assist in overseeing the Master Plan implementation. Public Works leads an Advisory Committee, on a quarterly basis, to review, plan, and seek funding for river projects

that would further the development of a 51-mile river greenway.

Between August 2000 and August 2002, the Advisory Committee worked on issues related to mural projects and bringing awareness to the River. Subcommittees were formed to initiate the development of signage and maintenance guidelines which will provide further guidance for the development of restoration projects. The Advisory Committee also drafted procedure guidelines for permitting artwork projects.

To further implement the Master Plan, the Fifth Annual Earth Day was held on April 2001 and involved a groundbreaking for the Valleyheart Greenway project which will be constructed in Fall 2003.



BEFORE E DAY 2001—Valleyheart Greenway



AFTER E DAY 2001—Valleyheart Greenway

## Los Angeles River Trash and Debris Collection System

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Public Works, with the assistance of Nautilus Marine Protection, Inc., tested an innovative trash collection boom on the Los Angeles River that was designed to remove urban debris and uprooted vegetation that finds its way down the River and into the Long Beach Harbor. This pilot project has effectively reduced the amount of trash and debris that washes up onto local beaches and compromises the water quality of the harbor and ocean. The system consists of 50-foot sections of polyethylene pipe with metal skirts that extend below the water surface. The collection system is held in place with cables, anchors, and keel blocks. A crane and harvesting bucket is used to remove material from the River and placed into containers and transported to a landfill. The project, beginning in April 2000, was initially funded with a \$640,000 State Grant. In April 2001, the County extended the pilot project by allocating over \$900,000 to support additional operation, testing, and monitoring of the trash collection system.

Results of the two years of testing have been encouraging, showing the system to be very effective under moderate storm conditions. The trash collec-

tion boom captured approximately 160 tons of material during the testing period. The collected material, in general, consisted of approximately 75 percent vegetation and 25 percent man-made materials.

The pilot demonstration test is complete and Public Works is beginning routine operation and maintenance of the system for the next two to seven years. The new contract is anticipated to begin in April 2003. Along with the removal of trash and debris floating down the Los Angeles River and into the



Pacific Ocean, the testing of this new technology provides valuable information and offers potential solutions to similar concerns at other rivers and tributaries in the Los Angeles County.

## Paseo Del Rio Hondo and San Gabriel Coastal Basins Spreading Grounds Phase II Multiuse Improvements

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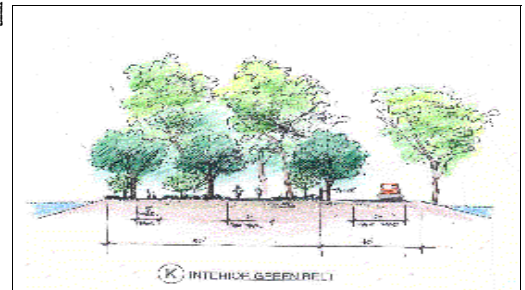
In May 2000, Public Works, in partnership with the City of Pico Rivera, began investigating the feasibility of beautifying and adding passive recreational improvements to the Rio Hondo and San Gabriel Coastal Basins Spreading Grounds. Phase I of the project, managed by Water Resources Division,

beautified the perimeter of the spreading grounds with landscaping, ornamental fencing, and monuments. The City received a Proposition A grant to build a bike path and rest area within Rio Hondo Spreading Grounds. Public Works managed the design and construction of the project which was

completed in November 2002. Public Works and the City are sharing in the maintenance responsibilities for these improvements.

Phase II expands on the existing improvements by providing increased public access, beautifying the interior of the spreading grounds, and providing passive recreational and educational improvements including walking and biking trails, rest areas, interpretive signage, and a visitor's center. A Stakeholder Group was formed to solicit input from various agencies and groups including Public Works, Supervisorial District 1, Central Basin Municipal Water District, Water Replenishment District, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), Cities of Pico Rivera, Montebello, and Whittier, and community residents.

Draft conceptual plans for Phase II have been developed and reviewed by the stakeholder group. WMD is currently preparing a concept report for this phase of the project. The total Phase II construction cost for both spreading grounds is estimated at \$5 million. The City of Pico Rivera has applied for funding for these improvements through Proposition 12 and a Caltrans grant. Other funding opportunities, including Proposition 40 and Metropolitan Transportation Authority (MTA) grant monies, will be pursued.



## Sun Valley Watershed Management

The Sun Valley Watershed Management Project is the first attempt in the nation to retrofit an established urban/industrial community (4.4 square miles) with various structural and nonstructural watershed management techniques and BMPs. Its success will serve as a blueprint of sustainability for the future.

This multipurpose project will provide solutions to the chronic flooding problem in Sun Valley while retaining, treating, and reusing stormwater from the watershed, resulting in less dependency on imported water and decreased stormwater pollution. It will also revitalize this underserved Sun Valley community by providing much needed recreational opportunities, aesthetic enhancements, and wildlife habitat. In addition, this innovative project will provide all these benefits while remaining technically, socially, and economi-



BEFORE-SUNVALLEY



AFTER-SUNVALLEY

cally feasible.

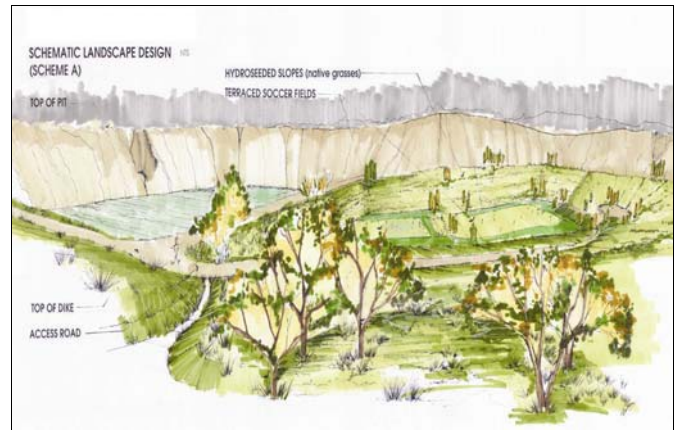
Also, because the Sun Valley project will offer a variety of benefits, it has the potential to attract multiple partners and funding sources. One of these funding partners includes the CALFED Bay-Delta Program, consisting of

over 20 State and Federal agencies with a mission to restore ecological health and improve water management in the San Francisco Bay-Sacramento River Delta ecosystem.

CALFED sees the Sun Valley project as a model for urban watershed management that will impact the Bay-Delta environment, both directly and indirectly. Widely implemented, the practices that will comprise the Sun Valley plan could reduce Southern California's thirst for imported water.

CALFED awarded Public Works a \$430,000 grant towards the development of a Watershed Management Plan for Sun Valley. TreePeople, another project partner, received \$350,000 for an edu-

cation and outreach program to compliment that plan.



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## Lessons Learned

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- When working with multiple agencies, it is critical to ensure that the agencies communicate the project effectively within their own department, particularly between their various levels of management.
- Managing expectations is a key component to a successful project.
- Watershed management education requires not only pamphlets and public outreach, but also personal interaction with multiple agencies. In other words, it requires the need to develop public relationships, rather than public relations.
- Stakeholders often expect us to know all the answers regarding watershed management.
- Stakeholders scrutinize our project developments before applying watershed management to their own practices.
- For effective watershed management planning, it is necessary to have a good understanding of the features and parameters that make up the watershed. This is best accomplished through a readily available GIS-based data set. WMD needs to improve the accessibility of this information.
- Watershed management projects are often very politically driven, partly due to the high level of public/stakeholder participation. It is necessary to become familiar with the politics behind these projects, not just the engineering and science.
- Stakeholders have higher expectations of WMD and it is difficult to convince them to trust other divisions. It has taken time to prove to stakeholders that watershed management is accepted Departmentwide.
- Transition from “planning” practices to “watershed management” is a difficult transition. Public members are still being educated on a case-by-case scenario regarding WMD’s roles with resolving drainage issues.

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## Future

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This Section proposes to continue to abide by the mission and learn from past efforts. It will continue to lead studies and projects to resolve flood protection issues, while improving the County of Los Angeles' recreational and natural resources. Some of the anticipated goals for the next two years include:

- Complete the Sun Valley Watershed Management Plan with an Environmental Impact Report and implement four out of six demonstration projects.
- Complete the Los Angeles River Signage and Maintenance Manuals.
- Complete the construction of projects such as the Los Angeles River Headwaters Restoration project, Cudahy Riverfront Landscaping project and the Tujunga Wash Restoration Project
- Define concepts and concept designs for Los Angeles River restoration projects to further the Master Plan implementation.
- Implement the feasible concepts for resolving drainage issues, improving flood protection, and alleviating open channel concerns.
- Develop design plans for wetlands creation at the Dominguez Gap Spreading Grounds and for the restoration of the Central Branch of Tujunga Wash.
- Continue operation of the Los Angeles River Trash and Debris Collection System and refine the system to improve performance while seeking opportunities to model it at other waterways.
- Develop a project design concept for stream restoration in Pasadena's Lower Arroyo Park.
- Develop design plans and begin construction of multiuse improvements to the Río Hondo and San Gabriel Coastal Basins Spreading Grounds.
- Develop watershed management plans for Arroyo Seco and Compton Creek Watersheds.
- Address Total Maximum Daily Loads (TMDLs) and other water quality issues through watershed management efforts.