# PROGRESS REPORT

# LOS ANGELES RIVER MASTER PLAN

October 1993

Los Angeles County Departments of

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and the
Los Angeles River Advisory Committee

Technical Assistance from
National Park Service
Rivers, Trails and Conservation
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## EXECUTIVE SUMMARY

This progress report of the Los Angeles River Master Plan marks the completion of Phase A: Outreach and Document Review, and Phase B: Analysis (including Resources Inventory, Issues, Goals and Objectives). The remaining phases will be completed over the next two years.

Since the 1980s there has been a renewed interest in the river as a valuable asset for the entire Los Angeles basin: As a multi-use resource, the river can serve human needs in a much broader sense than it does today. In July 1991, the Los Angeles County Board of Supervisors directed the Departments of Public Works, Parks and Recreation and Regional Planning to coordinate all interested public and private parties in the planning, financing and implementation efforts of a Master Plan for the Los Angeles River and Tujunga Wash. The National Park Service's Rivers, Trails and Conservation Assistance Program is providing technical assistance and group and community facilitation in this Planning Team effort.

Public participation is a key element in the four-year master planning process. An Advisory Committee consisting of cities, agencies and citizen group representatives has worked with the Planning Team since September of 1992 to identify key issues and formulate these goals for the river:

### LOS ANGELES RIVER MASTER PLAN GOALS

- **Ensure flood control and public safety needs are met.**
- **Improve communities' pride and appearance of the River.**
- **Promote the River as an economic asset to adjacent communities.**
- **Preserve, enhance and restore environmental resources in and along the River.**
- **Consider stormwater management alternatives.**
- **Ensure public involvement and coordinate Master Plan development and implementation among jurisdictions.**
- **Provide a variety of recreational opportunities along the River in a safe environment.**
- **Ensure safe access to and compatibility between the River and other activity centers.**

Subcommittees were formed and, based on the above goals, developed preliminary project ideas. These project ideas, along with the resource information summarized in this report, will be reviewed and revised through a series of public workshops beginning in the fall of 1993.

Development and implementation of this master plan will maintain the river as a facility that provides flood protection, generates new opportunities for recreation and environmental enhancement, improves the aesthetic qualities of the river, enriches the quality of life for residents, and contributes to the economy of the region.

## ACKNOWLEDGEMENTS

The Planning Team would like to thank the members of the Advisory Committee and the Subcommittees for their interest in and contribution to the development of the Los Angeles River Master Plan.

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# I. BACKGROUND

**Master Plan Origin**

The Los Angeles River Master Plan is the result of renewed citizen interest in the River occurring since the mid-1980s. Responding to this interest, Los Angeles Mayor, Tom Bradley, established a Task Force to investigate the opportunities for enhancing the River's environment and developing public recreation sites. The Task Force was specifically directed to identify demonstration projects that would illustrate opportunities for river enhancement.

The Task Force met for over a year studying the complex nature of the River; its historic importance as a dependable source of water, the siting of the Pueblo near its banks, the role it plays in providing protection from flooding, as well as the surprisingly abundant vegetation and bird life in certain reaches. The Task Force discussions culminated in 11 long range goals for the River and proposals for three demonstration projects.

While the Task Force's focus was on the portion of the River within the City of Los Angeles, it became evident that the River must be planned for as a whole. The task force proposed in their goals that a Master Plan be completed for the entire 51 mile length of the River.

In July 1991, the Los Angeles County Board of Supervisors unaminously approved a motion to undertake such a Master Plan with the intent of finding ways to take positive actions toward enhancing the Los Angeles River and Tujunga Wash environments.

The Board of Supervisors directed the County Department of Public Works to undertake the planning effort, along with the Departments of Parks and Recreation and Regional Planning. Based on the success of its involvement in Mayor Bradley's Task Force and other projects around the country, the National Park Service's Rivers, Trails and Conservation Assistance Program was invited to provide technical assistance in the County's Master Plan.

**Study Area**

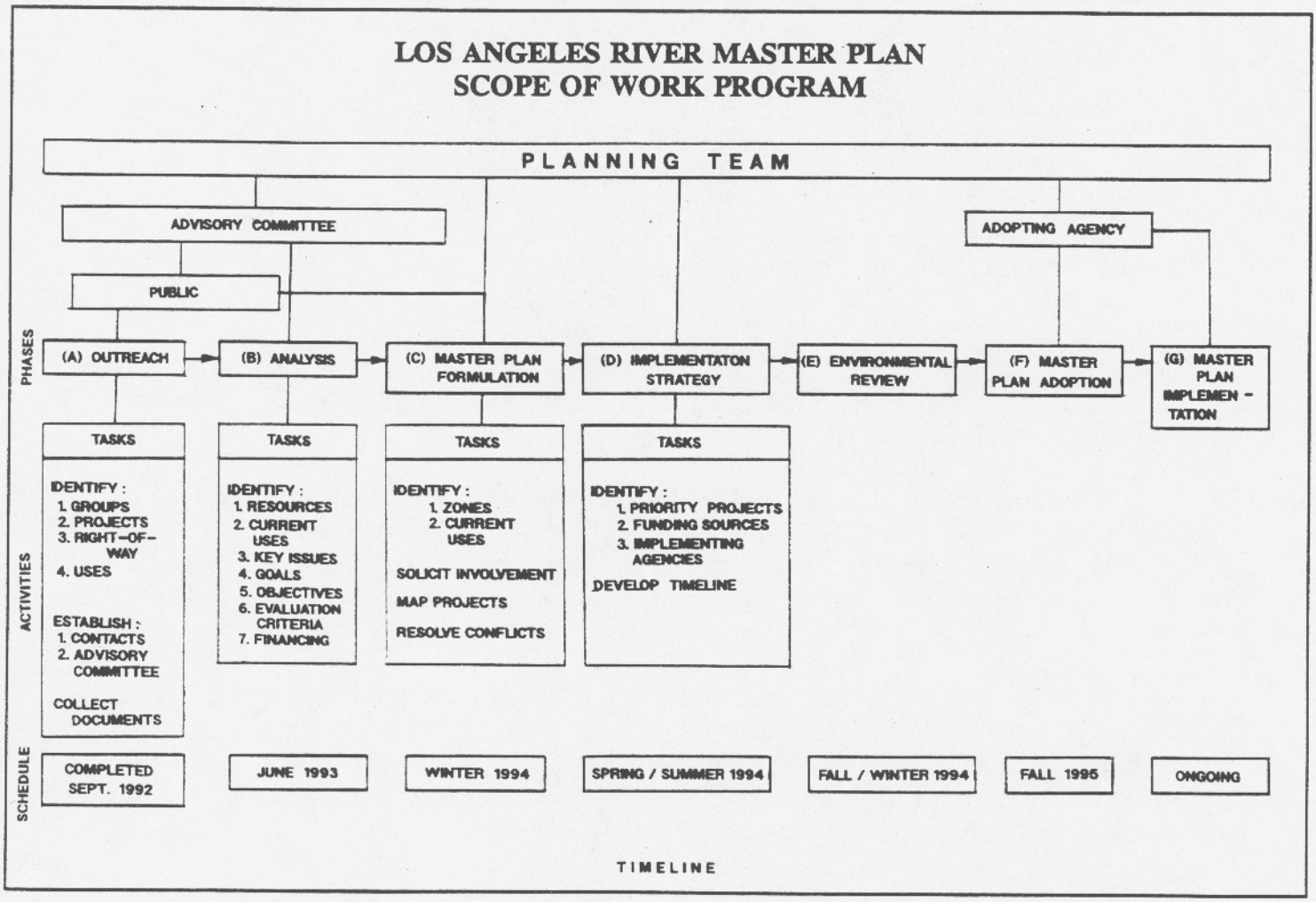
The Master Plan study area, referred to as the "River" in this Report, encompasses a one mile wide swath of the Los Angeles River from its headworks at the confluence with Bell and Calabasas Creeks to the Pacific Ocean and Tujunga Wash from Hansen Dam to the Los Angeles River.

**Vision of the Master Plan**

The Master Plan is intended to reflect the needs and ideas of the diverse communities, groups and individuals with an interest in the future of the River. One means of accomplishing this is through the participation of the Los Angeles River Advisory Committee, which was formed in the fall of 1992. The role of the Advisory Committee is to:

- Identify the issues critical to the enhancement of the river.
- Develop a community involvement program, including public meetings.
- Make project recommendations based on Master Plan findings.
- Develop an implementation plan for the projects identified in the Master Plan.

The Master Plan is being carried out in phases as shown in the work program below. This report marks the completion of Phases A and B. Phase B; Analysis of Resources, Uses, Issues and Goals, is being published for review before public workshops begin in the fall of 1993. The final product of this planning effort will be a Master Plan that proposes projects and programs that have been developed in conjunction with the people that will be using them. The Plan will reflect the opportunities and conditions faced by cities, agencies and citizen groups and recommend feasible and contiguous projects.




The Los Angeles River is a complex environment, touching many geographic areas and performing many functions in the urban environment. This is the very reason it has the potential to be a significant link between people and neighborhoods. But, it will require a concerted effort and inter-agency cooperation and coordination.

**The Need for Open-Space**

The pressure for development and flood protection consumed the once abundant open-space in the Los Angeles basin and brought about the channelization of the River. The basin was 98 percent "built out" by the 1980s. Only 4 percent of the land in the City of Los Angeles is devoted to public open-space and parks, the least of any major urban center in the nation. This compares to 9 percent in Boston and 17 percent in New York City.

The presence of public open-space significantly improves the quality of life in urban environments. Specific benefits of open-space and recreational facilities, such as trails, include:

Recreational - Access to close-to-home parks and open-space can benefit the millions of urban residents that typically do not travel great distances to county, state and federal parks and forests.

Health - Opportunities for stress-reducing exercise, which contributes to better health and lower medical expenditures.

Property Values - Many studies have shown that parks, greenways and open-space increase nearby property values, and that the resulting increase in local tax revenue can offset the cost of open-space/greenway acquisition and development.

Environmental - Trees and water that are often present in open spaces mitigate water and air pollution. Development of trails and greenways can decrease air pollution by encouraging people to ride bicycles, run, jog or walk instead of driving cars.

Educational - Public open-space provides appropriate sites for outdoor science classrooms and for urban wildlife viewing.

The need for these amenities in urban Los Angeles was documented most recently in a survey sponsored by Rebuild L.A. Over 77 percent of residents of the areas most affected by the 1992 civil unrest see parks, recreation and adult sports programs as "absolutely critical" or "important" needs in their communities. This need ranks second only to youth services.[1]

In the search for open-space, people are looking to public and quasi-public lands that in the past were dedicated to single purpose uses. Within Los Angeles County, hundreds of miles of flood control channels, railroad rights of way and utility corridors may offer some of the best opportunities for developing multi-use, public open-space. The Los Angeles River and Tujunga Wash are resources with the highest potential for enhancement.

1. L.A. Times - April 10, 1993

## II. HISTORY OF RIVER DEVELOPMENT

### Early Settlements

The year-round availability of freshwater has always been essential to the survival of Los Angeles area inhabitants. The rivers that flowed continuously in the Los Angeles basin; the San Gabriel, Rio Hondo, and the Los Angeles Rivers all changed their courses several times throughout history. Each time a change occurred, the local environment, economic activity, and peoples' lives were affected. The Los Angeles River has played a key role in the history and development of the greater Los Angeles basin.

Native Americans depended on the River for centuries. One of their major villages, Yangna, was located in what is now downtown Los Angeles. At that time, the village was located on the sweeping curve of the River as it turned west along its ancient course, outletting into Santa Monica Bay.

The first European to see the River was the Spanish explorer, Don Gaspar de Portola, as he commanded a land expedition from San Diego to Monterey in 1769. Father Juan Crespi, principal diarist for the expedition, described the River as "well-grown with cottonwoods and alders passing through a spacious valley."

A pueblo was strategically established to take advantage of the River's water for irrigation. A series of ditches, or zanjas, were constructed to carry water through the pueblo and across to the fields. Just as the Native Americans had located Yangna along the River, the Spanish built their town near the banks.

### The Natural Environment

The Los Angeles Coastal Plain is surrounded by a 150 mile steep mountainous perimeter containing 236 watersheds. The coastal plain is traversed by two major rivers, the San Gabriel and the Los Angeles.

Historically, the Los Angeles River had a natural riparian edge much wider (up to several miles in some places) than what exists today. When flooding occurred, water would spread across the coastal plain, frequently redefining the course of the River and alternating its ocean outflow between Santa Monica and San Pedro Bays. As the waters spread over the land, lakes, ponds, marshes and sloughs formed, interspersed within a forest cover. Plant communities that once dominated the area adapted to flooding. Valleys and meadows supported an abundance of plants among the forest cover of cottonwood and alder trees such as the slender horned spine flower. Also, these communities supported large populations of native freshwater fish and birds, such as the Least Bell's Vireo and Willow Fly Catchers. These birds are currently listed as endangered species.

Throughout its history, the Los Angeles River has gone through many alterations for human purposes. Originally, populations depended on the River for the essential provision of water. However, with the burgeoning development of the region in the last half century (6 million additional residents from 1940 to 1990) a need for flood protection was demanded by the public. The current interest may supplement its purpose by developing additional multi-uses.

**Characteristics of the Watershed**

Periodic major flooding is intrinsic to the Los Angeles region. "The foothill and mountainous portions of the Los Angeles watershed is comprised of 363 square miles or about 43 percent of the 839 square mile watershed, and of this area, 272 square miles are within the boundary of the Angeles National Forest."[2]

"Los Angeles and nearby cities are located on an alluvial plain, about 30 miles wide, lying between the Pacific Ocean and the San Gabriel Mountain Range. From the outwash fans at the northern edge of this alluvial plain to the tops of the higher peaks there is a difference in elevation of as much as 4,500 feet."[3] In the mountainous zone many areas have overall hillside slopes exceeding 68% on average. "The steep-sided canyons have channel gradients ranging up to 3,000 feet per mile (57%). The mountains themselves are formed largely of granitic rock, heavily faulted and deeply weathered, yielding large quantities of rock debris by normal erosional processes."[4] They are among the most erodible mountains in the world according to Dr. Frank Weirich, geomorphologist at the University of Iowa.

"When the characteristic local storms of high intensity occur, the steep canyons of these mountains discharge torrential flows of water and debris upon the suburban and urban areas lying along the mountain front at the edge of the valley floor.

"The intensity of the torrential flows from the mountains, and the damages caused by the debris and boulders which they transport, increase to an astonishing degree whenever the mountain watershed is denuded by forest fires. Damages resulting from these local torrential floods are out of all proportion to the size of the area from which the floods originate."[5] Dr. Weirich has also indicated that increases in discharge magnitudes in excess of 40 times and sediment increases of 100 times, are not uncommon for burned areas in these mountains.

**History of Flood Control Programs**

Flooding has become a greater problem as development came to the area. Reportedly, in 1815, the Spanish City Plaza was washed away and, with the arrival of railroads in the 1880s, the population growth boomed in the region. In 1825, after a major flood, the River changed its westward course and turned southerly emptying into the San Pedro Bay as it does now.

In 1892, President Harrison and Congress established a 1,500,000 acre San Gabriel Watershed Reserve "primarily for the purpose of watershed protection and the improvement of water-flow conditions".[6]

Extensive flooding in 1914 resulted in a number of deaths and $470 million (1990 dollars) in damages and was due, in part, to development which impacted the River's natural flow path. In response to public outcry, the State created a County Flood Control District which

2. Dept. of Agriculture, Survey Report - Los Angeles Watershed, June 14, 1941, p. 29
3. Ibid., p. 18
4. Ibid., p. 18
5. Ibid., p. 19
6. Ibid., p. 31

began working on ways to control the flooding. Between 1920 and 1939 fifteen flood control and water conservation dams were constructed within the basin.

In 1934 the La Crescenta flood disaster caused the Flood Control District to seek assistance from Congress and the U.S. Army Corps of Engineers (Corps). The Corps' commitment was underscored after the 1938 flood cut Los Angeles off from the rest of the nation for a week. Between 1938 and 1970, the Corps designed and built a regional flood control system which encompassed the River and its tributaries.

Concurrently, in 1940 the United States Department of Agriculture, now the United States Forest Service (USFS), issued a survey report regarding a watershed program for upstream flood control on properties owned by and under the jurisdiction of the U.S. government. The watershed program presented by the USFS does not conflict with or substitute for any elements of the downstream system of reservoirs, debris basins, and channels now installed or proposed for installation by other agencies. It is essentially a program for watershed treatment and deals with the land surface and small waterways rather than with accumulated waters and large channels.

While the USFS, through its watershed management programs, seeks to lessen the impact of floods emanating in the mountains, the publicly financed system of concrete open channels, underground storm drains, debris basins and dams help protect the lives and property of residents and businesses in the Los Angeles basin during the winter rainy season. Over the years, this system has prevented an estimated $3.6 billion in flood damages and has allowed the development of the Los Angeles basin.

Efforts to combat floods have been multi-objective and multi-jurisdictional. The USFS undertook watershed management of federally-owned forest lands; the County Flood Control District separately and in concert with the USFS constructed check dams and debris basins in highly erodible canyons; dams and reservoirs were also constructed in the mountains to capture winter rains for both immediate flood control and year-round water conservation; the Corps constructed major dams and channels on the coastal plain; vacant lands were purchased and developed for groundwater recharge spreading grounds in the foothill areas and other areas suitable for groundwater recharge; channels were constructed and in areas where deep-acquifer groundwater recharge could be achieved, the channel bottoms were left in a natural state to promote percolation of runoff. Finally, storm drains were constructed in response to complaints about flooding problems in developed areas.

## III. THE LOS ANGELES RIVER TODAY

**Existing Conditions**

The Los Angeles River's course stretches 51 miles, starting at the confluence of Bell and Calabasas Creeks at the western end of the San Fernando Valley. From here the river flows easterly through Sepulveda Basin to Griffith Park, where it makes a sharp bend toward the south. It continues south-easterly through the Glendale Narrows, skirts the eastern tip of the Santa Monica Mountains and heads south through downtown Los Angeles. The river curves through cities such as Vernon, Bell, and South Gate before finally emptying into the Pacific Ocean in Long Beach. The portion of Tujunga Wash included in this study begins at Hansen Dam in the Lake View Terrace area and continues 9 miles to its confluence with the Los Angeles River, near Laurel Canyon Boulevard in Studio City. Taken together, the Los Angeles River and Tujunga Wash have the potential of providing up to 60 miles of trails, open space and other multi-purpose facilities for the benefit of the region's population.

During the 1940s and 1950s, the River was channelized in response to demands of residents who suffered property damage and loss of life from major floods. The channel was built in a trapezoidal or rectangular configuration to minimize costly right-of-way acquisition, and lined in concrete to prevent erosion and scour of the loose native soils. The smooth concrete surface was designed to allow flood waters to move quickly and to provide a durable, low maintenance flood protection system.

In the sections of the river that have a high ground water table or that serve as flood control basins, the channel bottom was lined with boulders and cobble. With the continual flow of 60 million gallons a day of tertiary treated effluent from two waste water treatment plants, these "soft-bottom" areas now support vegetation which serves as wildlife habitat. These vegetated areas contrast sharply with the surrounding concrete structure, and are most noticeable in three locations: Sepulveda Basin, Griffith Park and Willow Avenue estuary area in Long Beach.

There is very little natural flow throughout most of the year. The reclaimed waste water that enlivens these and other reaches of the river is from the Tillman (City of Los Angeles) and Glendale Waste Water Treatment Plants. This water is of a very high quality, though not potable. This source currently provides 80% of the water in the river during the dry seasons.

Cities along the Los Angeles River and Tujunga Wash study areas include: Bell, Bell Gardens, Burbank, Carson, Commerce, Compton, Cudahy, Downey, Glendale, Long Beach, Los Angeles, Lynwood, Maywood, Paramount, South Gate, Vernon and portions of unincorporated Los Angeles County. As the course of the river winds through these communities, various land uses can be seen adjacent to the river including residential, industrial, commercial, utility corridors, railroads, schools, and parks. Numerous parcels of open land can also be found along the river. Although relatively small, these open areas may provide an opportunity for a continuous network of existing and new recreational facilities, bike paths and equestrian trails. Areas of open land may also provide opportunities for environmental and aesthetic enhancement along the river.

**Resource Maps**

The Los Angeles River Master Planning Team has gathered information and developed a set of maps illustrating the existing conditions within the study area. Major proposed transportation projects were also mapped. These maps are: Land Use, Community Resources, Cultural and Historic Resources, General Plan Designations and Redevelopment Areas, and Open Land.

A. Land Use

Land use information was compiled from an existing County database in its GIS/Arc Information System. This database was originally compiled from 1990 aerial photos at a scale of 1=2000'. Land uses designated by various colors include low, medium and high density residential, commercial, public facilities, industrial, water conservation facilities, freeways and major roads.

B. Community Resources

Two base maps of the river study area show community resources at a scale of 1" = 2000'. The maps were developed from a GIS/Arc Information System and include symbols for various amenities that occur within the one mile radius study area of the River. Community resources that were mapped include: schools, parks, golf courses, transportation lines, equestrian trails and centers, foot trails, bike paths. (Cultural and historical points of interest were mapped separately.) The maps also indicate projects in the river study area being planned by CALTRANS and Los Angeles County Metropolitan Transportation Authority.

C. Cultural and Historical Resources

Cultural/historic information that was mapped includes architectural, historical or cultural landmarks, buildings, bridges, structures and sites that were within the area designated as the Los Angeles River Study Area boundary illustrated on the Land Use Map. This study area boundary consists of a one mile radius on either side of the River.

Resource information was taken from a City of Los Angeles, Cultural Affairs Department publication. This publication has documented historic and cultural monuments in the past 31 years since the establishment of a Cultural Board in 1962. It is important to note that the publication indicates that the Historic Cultural Monument listing in no way represents the total of architectural, historical or cultural landmarks, buildings, structures and sites in the City of Los Angeles which should be identified and marked for preservation. Information within the publication is dependent on incoming nominations from interested citizens.

As the Planning Team continues to meet with various groups in our Advisory Committee, Subcommittee and Public meetings, it can continue to gather information that can be mapped. Thus, mapping is also dependent on incoming resource information from groups and or members with expertise on this subject matter. The Cultural Resources tissue overlay with information on early settlements along the River was taken from a map provided by the National Park Service.

D. Environmental/Biological Resources

Biological Resource information was provided by several interested members that were in attendance at the first sub-committee meeting in February 1993. At this meeting, individuals with specific biological information were invited to indicate all related resource data on base maps. The data mapped includes locations of water bodies, wildlife habitats, potential wildlife migratory routes, Significant Ecological Areas and areas with a potential for development restoration.

E. General and Redevelopment Plan

The General and Redevelopment Plan map shows proposed land use and redevelopment areas for cities within the study area at a scale of 1"=2000'. Presently, the Planning Team is using a GIS map at a scale of 1"=5000' created from information obtained during the production of the 1980 Countywide General Plan. General Plan information from all jurisdictions has been standardized to fit into nine categories. These include low to high density residential, major commercial, major industrial, public and semi-public, non-urban and open space. The Planning Team is in the process of updating General Plan information and Redevelopment project area boundaries from various cities along the river. To date, only three redevelopment project areas in the cities of Cudahy, Paramount and Burbank, have been identified. In order to complete the General and Redevelopment Plan map, information from the other remaining cities must be obtained. Ultimately, this map will be digitized with each cities' information. The GIS system will allow the production of a high quality comprehensive map. Each city will receive a copy of the map including the surrounding cities to enhance coordination between adjacent communities if desired.

F. Public Open Space/Ownership

At a scale of 1"=150', existing open space is identified on a series of County Assessors' maps. Existing vacant land is located on aerial photographs and then outlined on the County assessor's maps. Vacant land includes, but is not limited to, parking lots, utility corridors and rail lines. The assessor' maps indicate ownership of vacant land, an essential process in determining publicly-owned land.

**Sources of Information**

Sources used to map these resources include Los Angeles County Regional Planning Department land use maps, City General Plan Maps, City Redevelopment maps, various documented studies, aerial photographs, historic photographs and contributions from individuals with knowledge about the river. In some cases individuals contributed information, based on their personal knowledge, to the mapping effort.

## IV. PROJECT AND PROGRAM OPPORTUNITIES

This section of the report presents the work of six subcommittees which were formed to begin developing implementable objectives that address the goals identified by the Advisory Committee. The six subcommittees were: Aesthetics, Economic Development, Environmental Quality, Flood Management/Water Conservation, Jurisdiction and Public Involvement, and Recreation.

Working with the goals established by the Advisory Committe, subcommittees composed of community members and agency representatives developed lists of preliminary project and program ideas. These were developed during two 90 minute workshops in May and June 1993. Each group was coordinated by a member of the Planning Team. Participants for the subcommittee were gathered by several means: recommendations from Advisory Committee members, volunteers, representatives from agencies associated with a particular topic, and references from people interested in the Los Angeles River Master Plan process.

In order to compare the preliminary project ideas with the original goals, a matrix has been constructed with project ideas down the left hand side and goals across the top. These matrices can be used as work sheets to comment on the relationship between the project ideas and the goals.

The reader should bear in mind that the project ideas listed here are not final and are not necessarily supported by the Advisory Committee nor the Planning Team. These lists will serve as a starting point to gather more ideas during community meetings. The process of refining project ideas into specific proposals will involve more research, many discussions with the communities along the river, and the development of funding strategies.

**Los Angeles River Master Plan**
**AESTHETICS Subcommittee**

## THE GOALS

The goals developed by the Advisory Committee for aesthetics are:

- IMPROVE COMMUNITIES' PRIDE AND APPEARANCE OF THE RIVER

  - Improve appearance of the river, encourage river cleanup and promote beautification.
  - Increase community pride and promote identity of the river.
  - Provide interconnection between communities and recreation facilities.
  - Green the river.
  - Encourage development of a riverfront.

## SUBCOMMITTEE DISCUSSIONS

The aesthetics subcommittee addressed the overall issue of developing a sense of pride and connection to the river for the adjacent communities and the residents of the Los Angeles basin. The discussions revolved around the need for river beautification and incorporating a stronger or richer public perception of the river.

The committee concluded that improving river aesthetics involved not only projects that altered the appearance of the river, but projects that would provide a deeper sense of awareness about the history and importance of the river in development of the basin. This included projects that would make the river inviting, educational, and provide the scale necessary for human interaction.

It was agreed that these projects would vary based on the configuration of the river throughout its length, but that a common visual or thematic element would be needed to provide continuity and serve as a reminder of the entire river.

## PRELIMINARY PROJECT IDEAS

1. Painted faces
   Like existing "cats" painted on storm inlets, use other wildlife faces as education of what exists in basin.

2. Defensive plantings
   Use vines on buildings and levee walls to soften harsh concrete surfaces and deflect graffiti.

3. Art contest for river logo
   Education for local schools and potential fund raiser. Run contest within high school art classes.

4. Clean-ups
Expand on City of LA "Clean-sweep" & "Adopt-a-spot; FOLARs River Clean-up; Dept. of Public Works Adopt-a-Channel.

5. Stenciling of storm inlets
County and City of Los Angeles project marking drain inlets with "this leads to ocean". Expand to other cities and "leads to river & ocean".

6. Art of river in adjacent parks
Public education and potential fund raiser. Have days to create art from river images, and exhibits in adjacent parks.

7. Anza Trail
National Park Service project that demonstrates historic significance of river. Sites along river planned.

8. Historic bridges
Current bridges to act as unifying elements of the river. Emphasize views to them; improve signage; influence new bridge design to have character of historic ones.

9. Bridge banners
Every bridge crossing river to have colorful banner for recognition of crossing.

10. Bronze maps of entire river along route
To emphasize complete system; celebration of entire river; building on sections.

11. Water as art
Create diversions for river parks; textured surfaces for different effects; fountains.

12. Colored/stamped concrete walls
To provide visual river on channel walls.

13. Tree planting programs
Expand on Midway Yard/Blue Line Greenway type programs.

14. Nurseries in easements
Expand for greening. Encourage community gardening; sustainable planting; forestry; economical landscapes.

15. Griffith/Taylor area
Bend of river as visually and historically significant identifying element for entire system.

16. Master Plan Map
Use as logo; identifying element of continuity on maps.

17. Art-installations
To increase river recognition. Create media events; tie to museums; installations at various spots on river on an exhibit that moves the entire length of river over time.

18. "Walk-ins" (like drive-ins)
Show videos on concrete walls with bleachers set up in rights-of-way.

19. Petroglyphs
Historical images painted on walls of river channel.

20. Educational centers
Museum like places for displays of cultural history, engineering, and natural systems of river. To occur at several spots along entire route.

21. Shadow images
Use plantings and objects to create shadow relief on channel walls.

| Los Angeles River: Aesthetics<br>PRELIMINARY PROJECT IDEAS | | | | | |
|---|---|---|---|---|---|
| | CLEAN-UP/ BEAUTIFY | COMMUNITY PRIDE & IDENTITY | COMMUNITY RECREATION INTERCONNECT. | GREENING | RIVERFRONT |
| 1. Painted faces | | | | | |
| 2. Defensive plantings | | | | | |
| 3. Logo Art | | | | | |
| 4. Clean-ups | | | | | |
| 5. Inlet stenciling | | | | | |
| 6. Art in Parks | | | | | |
| 7. Anza Trail | | | | | |
| 8. Historic bridges | | | | | |
| 9. Bridge banners | | | | | |
| 10. Bronze maps | | | | | |
| 11. Water art | | | | | |
| 12. Colored/stamped walls | | | | | |
| 13. Tree plantings | | | | | |
| 14. Easement paintings | | | | | |
| 15. Griffith/Taylor Yard area | | | | | |
| 16. Master Plan map | | | | | |

| Los Angeles River: Aesthetics<br>PRELIMINARY PROJECT IDEAS | | | | | |
|---|---|---|---|---|---|
| | CLEAN-UP/ BEAUTIFY | COMMUNITY PRIDE & IDENTITY | COMMUNITY RECREATION INTERCONNECT. | GREENING | RIVERFRONT |
| 17. Art installations | | | | | |
| 18. Walk-in theaters | | | | | |
| 19. Petroglyphs | | | | | |
| 20. Educational Centers | | | | | |
| 21. Shadow images | | | | | |

**Los Angeles River Master Plan**
**ECONOMIC DEVELOPMENT Subcommittee**

## THE GOALS

Goals developed by the Advisory Committee for Economic Development are:

- PROMOTE THE RIVER AS AN ECONOMIC ASSET TO ADJACENT COMMUNITIES

    - o Provide education, training, jobs and business opportunities to benefit communities.
    - o Establish long and short term funding sources.
    - o Promote responsible development.
    - o Preserve and enhance real estate values.
    - o Ensure maximum citizen involvement in all phases of economic development planning.
    - o Balance local and regional benefits.

## SUBCOMMITTEE DISCUSSIONS

Economic development is important to all the communities along the Los Angeles River and the Advisory Committee identified this as an issue that should be addressed in the Master Plan process. This subcommittee considered the contributions the river might make to the future economic health of adjacent communities. Key issues identified by the Advisory Committee, which became the focus of the Subcommittee discussions, included jobs creation, enhancement of real estate values and the need to balance regional benefits with those benefits received by the communities adjacent to the river.

## PRELIMINARY PROJECT IDEAS

1. Taylor Yard Transit Development Study
   MTA study of the Taylor Yard and surrounding area. This study of the Taylor Yard and surrounding area adjacent to the river could include potential jobs, business and training opportunities.

2. Bike Path Through Midway Yard
   A proposed bike path link through Pasadena Metro Line maintenance area at Midway Yard connecting with City of Los Angeles bike paths. Real estate values may be enhanced and businesses established to service bike path users.

3. Alameda Corridor Project
   A proposed below-grade rail line along the "Alameda Corridor" for the movement of cargo containers from the ports of Los Angeles and Long Beach to downtown Los Angeles. Portions of this corridor are within the Master Plan study area.

4. Slauson Avenue Interchange
A proposal for an interchange including off and on ramps to the 710 freeway at Slauson Avenue. Some jobs may be generated, but this project will provide more regional benefits in terms of employment. Improved access could bring increased business traffic to the local community.

5. Pacific Pipeline
A proposed underground oil pipeline from Santa Barbara County to Los Angeles Harbor. Though some jobs may be created for local communities, most benefits from this project will be felt at the regional level.

6. Kal Kan-Lunch Area
The utility right-of-way has been landscaped and furnished with picnic tables to serve as an outdoor lunch area for workers at the Kal Kan facility in Vernon. Many such utility easements exist along the river next to industrial uses and similar lunch areas could be developed with a potential for new businesses (restaurants) to serve these areas.

7. Vernon Redevelopment Project Area
This proposed redevelopment project area encompasses approximately 60% of the City of Vernon. The City's goals for the area include stabilizing the economic base, addressing irregular lot sizes and providing capital improvements. Most of the redevelopment area is within the river study area and suggests the potential for coordinating site development with adjacent riverfront enhancements.

8. Gateway Center
Proposed headquarters of the Los Angeles County Metropolitan Transportation Authority. Businesses may be established to service workers in an enhanced riverfront setting.

9. Master Plan for Union Station
This is a development plan for the Union Station area. Transportation facilities are seen as stimulating economic development. The potential for an enhanced Los Angeles Riverfront to contribute to the revitalization of this area could be considered in this planning process.

10. Burbank Media District
This Specific Plan was adopted in 1991 to guide development in the southwestern area of Burbank, known as the Media District. The entire district is within the Los Angeles River Master Plan study area, and includes standards for promoting economic development. Review for applicability to the riverfront.

| Los Angeles River: Economic Development<br>PRELIMINARY PROJECT IDEAS | | | | | | |
|---|---|---|---|---|---|---|
| | EDUCATION, TRAINING, JOBS, BUS. OPPORTUNITY | ESTABLISH FUNDING SOURCES | PRESERVE & ENHANCE REAL ESTATE VALUES | RESPONSIBLE DEVELOPMENT | CITIZEN INVOLVEMENT | BALANCE LOCAL & REGIONAL BENEFITS |
| 1. Taylor Yard Study | | | | | | |
| 2. Bike Path - Midway Yard | | | | | | |
| 3. Alameda Corridor | | | | | | |
| 4. Slauson Avenue Interchange | | | | | | |
| 5. Pacific Pipeline | | | | | | |
| 6. Kal Kan Utility ROW Facility | | | | | | |
| 7. Vernon Redevelopment Project | | | | | | |
| 8. Gateway Center | | | | | | |
| 9. Union Station Master Plan | | | | | | |
| 10. Burbank Media District | | | | | | |
| | | | | | | |
| | | | | | | |

## THE GOALS

Goals developed by the Advisory Committee for environmenatal quality are:

- PRESERVE, ENHANCE AND RESTORE ENVIRONMENTAL RESOURCES IN AND ALONG THE RIVER

    - o Improve and create natural plant and animal habitats.
    - o Increase water conservation efforts and provide for most beneficial use of river water.
    - o Improve water quality and cleanliness of river.
    - o Improve air quality.

## SUBCOMMITTEE DISCUSSIONS

The Environmental Quality Subcommittee was initially formed to gather information on the existing biological resources of the Los Angeles River. Information gathered at a meeting in February became the basis for the Biological Resources Map described in the Existing Conditions section.

At two subsequent meetings of the subcommittee (with additional participants), the group listed ongoing projects and studies, proposed additional projects and identified research areas. The group, comprised of people in the fields of water quality, biological sciences, native plants, urban wildlife, and planning, discussed the following issues that affect the environmental quality of the Los Angeles River.

Water sources/flows:
Currently about eighty percent of the dry season flow in the river is from tertiary treated effluent from the Tillman and Glendale Treatment Plants--approximately 78 million gallons a day (239 acre-feet per day). Other sources are industrial discharge, urban runoff, and seepage when groundwater rises. Future demand/markets for reclaimed water will result in lower flows in the river for habitat and other uses.

Water quality:
Due to the high proportion of tertiary treated effluent in the flows, the quality of the river water is relatively good. The pollutants carried from industrial and urban runoff can negatively affect the quality at various times. As required by the Clean Water Act, the County and cities are currently working to control this "non-point source" pollution through the National Pollutant Discharge Elimination System (NPDES) permitting process. This process requires that each jurisdiction attempt to reduce non-point source pollutants reaching the streams, rivers and oceans from their areas. The water in the river is being monitored by the Los Angeles County Department of Public Works and the Regional Water Quality Control Board.

Urban Wildlife:
Elements in the urban environment (people, pets, noise, traffic, air pollution) can negatively impact wildlife in those habitats that do remain. Conversely, elements in habitat environment (mosquitoes, midge flys, etc.) can negatively impact human populations in close proximity to standing water. Planning for the protection and restoration of wildlife habitats near urban environments should take these potential impacts into consideration.

Types of wetlands:
The almost complete loss of the original wetlands, and the altered hydrology of the river, make it difficult to know what types of wetlands would be most successful if restoration efforts were undertaken. Plans would need to consider several variables including current flow patterns and future water availability.

Part of a system:
The Los Angeles River is one of several important regional habitats for birds and other wildlife. Major flyways exist between the river and other sites with surface water, including Hansen Dam and Pierce College. It is necessary to protect and enhance the entire system of habitats to adequately provide for wildlife in the region.

Integrated approach to water/watershed management:
Resulting urban runoff can have a cumulative affect on the entire watershed. Planning and development policies should be reviewed for potential regional impacts.

**PRELIMINARY PROJECT AND PROGRAM IDEAS**

1. Sepulveda Basin Urban Wildlife Refuge
   Potential nomination for Sepulveda Basin adjacent to river for Urban Wildlife Refuge subject to inundation. Multi-agency management with Memoranda of Understanding; environmental overlay. Organized per USFWS guidelines.

2. Los Angeles River Urban Wildlife Refuge
   Look at potential for Urban Wildlife Refuge in parts of the river that are important to wildlife, such as soft-bottom sections and the shore bird habitat at Willow Avenue.

3. Fisheries Habitat Restoration
   Through Department of Fish and Game's Urban Fishing Program, enhance the fisheries habitat at locations along the river where access could be safely provided and monitored. Possible location: Los Feliz/Glendale Narrows. Include river awareness and environmental education in the Urban Fishing Program's outreach program to the schools and in their fishing clinics.

4. Los Angeles River Significant Ecological Area (SEA)
   Investigate possible Los Angeles County SEA designation for sections of the river.

5. Wetlands Designation
   Investigate possibility of wetlands designation for soft-bottom sections of the river.

6. Protection of SEA's and Habitats
Preserve/protect the existing significant habitats and SEAs adjacent to the river.

7. Off-Site Riparian Area Mitigation
Within the Los Angeles River, identify potential sites for off-site riparian area mitigation.

8. Open Land Inventory
Inventory available land for potential greenbelt parks and natural open space.

9. Regional Bike Paths
Encourage non-polluting transportation by developing a regional system of bike paths.

10. Wetlands Restoration
Evaluate existing conditions to determine the re-establishment of appropriate types of wetlands. Look at annual patterns of the Los Angeles River. Use L.A. County Museum of Natural History's report as a starting point. Enlist adjacent colleges and universities to carry out the studies and to develop projects. This would provide opportunities for community involvement and environmental training.

11. In-Channel Ground Water Recharge
Is in-channel water recharge possible? What would be the possibility of using the low flow channel for recharge by removing the concrete? Would there be erosion problems?

12. Sod Farm Conversion
Investigate the possibility of converting the sod farms in Sepulveda Basin into wildlife habitat areas.

13. Use of Power Line Rights-of-Way
Investigate the possibility of using power line rights-of-way for habitat; wetlands to serve as a filter for urban runoff.

14. Educational Programs
Expand NPDES/BMP educational programs to include the river, to change attitudes and mind sets about the river and the watershed. Also work with Audubon Society and other environmental groups to add water quality and river and watershed awareness to their programs and presentations.

15. Revegetation Program
Revegetation, canopy plantings using native species along the maintenance roads, river banks and levees, etc.

16. Review Local Planning and Development Impacts
Look at the affect of local planning and development decisions on regional runoff situation. Consider using the detention/retention basins (similar to Pan Pacific Park) elsewhere in the County.

## EXISTING PROJECTS AND PROGRAMS

1. Water Quality Monitoring
   Los Angeles County Department of Public Works monitors water quality in L.A. River. Data goes back to early 1980's. All parameters. Fixed sites: Wardlow Rd., Firestone Blvd., Arroyo Seco, and near Tujunga Wash confluence. Data goes to EPA's STORET program. River water also monitored by the City of Long Beach Health Department and the RWQCB. In updating its Basin Plan, the RWQCB is also gathering water monitoring data from all other agencies.

2. NPDES Program
   Being coordinated by County DPW. Phase 2 includes upper river, Phase 3 includes lower river.

3. Coastal Non-Point Source Program of the National Oceanic and Atmospheric Administration (NOAA)
   (through Coastal Commission and Coastal Zone Management Act) and EPA (through RWQCB): requires the State Water Resources Control Board and the Regional Boards to implement enforceable non-point source controls in coastal watersheds.

4. Santa Monica Bay Consent Decree
   The Consent Decree concerns the City of Los Angeles and the quality of water being discharged from the Hyperion service area into Santa Monica Bay and it tributaries. Portions of the Los Angeles River Watershed are in the Hyperion service area.

5. Urban Fishing Program
   In Los Angeles and Orange Counties the program consists of education, management of lakes and ponds, stocking trout and catfish and lake fish habitat restoration of urban lakes. (Examples: Lake Balboa, Echo Park Lake, Alondra Park Lake) Los Angeles River could be a candidate. Funded by Federal/State at a 75/25% split. Federal Funding though USFWS.

6. Environmental Education Programs
   Ongoing in Sepulveda Basin by Audubon Society, etc.

7. Storm Drain Stenciling
   RWQCB has a contract with Heal the Bay to do storm drain stenciling in the region.

8. U.S. Fish and Wildlife Service Endangered Species Program
   Recovery Plans or Listing Packages for Endangered or Endangered (Candidate) species in various native habitats in upper Los Angeles River drainages, especially coastal sage scrub and riparian plant communities. Listing packages being developed for California Spotted Owl, Coastal Cactus Wren and other plants, mammals, herps., etc.) Recovery Plans for Least Bell's Vireo, and others. Initiated by USFWS.

9. Sepulveda Basin Enhancement Programs
California Native Plant Society and others carry out habitat enhancement programs in Sepulveda Basin.

10. "Headworks Project"
Pilot study to check the ground water quality that results from spreading and percolating untreated Los Angeles River water. City of L.A. Department of Water and Power at the Headworks Spreading Basin (near Forest Lawn Drive).

11. Los Angeles River Bike Path
City of Los Angeles Transportation Department and Bureau of Engineering are in the design phase of the first segment of a bike path that will parallel the Los Angeles River from Zoo Drive to San Fernando Road. When completed, the bike path will provide an alternative means of commuting from San Fernando Valley to Downtown, and contribute to better air quality in the region.

12. Los Angeles River Watercourse Study
At the request of the City of Los Angeles and the County, U.S. Army Corps of Engineers funded a reconnaissance study of the river from Sepulveda Basin to the confluence with Arroyo Seco looking for potential environmental and habitat restoration projects. The study recommended three undeveloped sites next to the river for restoration: the "Headworks" spreading basin, a 12 acre park near Victory Boulevard, and parts of Taylor Yard (about 40 acres). A local sponsor has not yet been identified for the next stage, a feasibility study.

13. The Biota of the Los Angeles River
An overview of the historical and present plant and animal life of the Los Angeles River drainage. Prepared by the Natural History Museum of Los Angeles County Foundation in March 1993 under a contract with the California Department of Fish and Game. Includes sections on algae, vascular plants, freshwater mollusca, freshwater fish, amphibians and reptiles, avifauna and mammals.

14. Wetlands Inventory
Being done for the Regional Board by Dr. Saint of Cal State Fullerton.

Abbreviations:

BMP - Best Management Practices

DPW - Department of Public Works, both City of Los Angeles and Los Angeles County have departments by this name.

DWP - Department of Water and Power, City of Los Angeles

EPA - U.S. Environmental Protection Agency

NOAA - National Oceanic and Atmospheric Administration

NPDES - National Pollutant Discharge Elimination System, a federal permit for discharge to surface waters.

RWQCB - Regional Water Quality Control Board, the local branch of the State Water Resources Control Board.

SWRCB - State Water Resources Control Board

SEA - Significant Ecological Area (Los Angeles County designation)

USFWS - U.S. Fish and Wildlife Service

| Los Angeles River: Environmental Quality<br>PRELIMINARY PROJECT IDEAS | | | | |
|---|---|---|---|---|
| | HABITATS | WATER CONS. & USE | WATER QUAL. & CLEANLINESS | AIR QUALITY |
| 1. Sepulveda Urban Wildlife Refuge | | | | |
| 2. L.A. River Urban Wildlife Refuge | | | | |
| 3. Fisheries Habitat Restoration | | | | |
| 4. L.A. River SEA | | | | |
| 5. Wetlands Designation | | | | |
| 6. Protect SEA's & Existing Habitats | | | | |
| 7. Off-Site Riparian Mitigation | | | | |
| 8. Open Land Inventory | | | | |
| 9. Regional Bike Paths | | | | |
| 10. Wetlands Restoration | | | | |
| 11. In-Channel Ground Water Recharge | | | | |
| 12. Sod Farm Conversion | | | | |
| 13. Use of Powerline ROW's | | | | |
| 14. Education Programs: NPDES, Audubon | | | | |
| 15. Revegetation Program | | | | |
| 16. Review Planning/Development Impacts | | | | |
| | | | | |
| | | | | |

## Los Angeles River Master Plan
## FLOOD MANAGEMENT/WATER CONSERVATION Subcommittee

### GOALS

The goals developed by the Advisory Committee for flood management/water conservation are:

- ENSURE THAT FLOOD CONTROL AND PUBLIC SAFETY NEEDS ARE MET

- CONSIDER STORMWATER MANAGEMENT ALTERNATIVES

    - o Ensure that public safety is primary.
    - o Ensure that flood control needs are met.
    - o Seek consensus on land use decisions.
    - o Consider stormwater management alternatives.

### SUBCOMMITTEE DISCUSSIONS

Educating children and adults on river safety will become more crucial as the river and adjacent areas are adapted to multi-uses in addition to flood control. Where it is feasible, some areas may be restored to natural habitats and native vegetation. Urban residents that have little experience with these kinds of settings will have the opportunity to learn more about natural environments.

The need to maintain and enhance the river's primary function of flood control was stressed. In addition, efforts to increase water conservation and aesthetic enhancement were encouraged by the group.

The group discussed the need for improved stormwater management practices and recognized that future benefits could include water conservation and multiple use facilities.

### PRELIMINARY PROJECT IDEAS

1. <u>Fresh Water Harbor</u>
   A 5,070 acre area basin at the mouth of the Los Angeles River in Long Beach, to capture 300,000 acre feet of runoff for reuse.

2. <u>National Forest Watershed Management</u>
   The U.S. Forest Service will study methods to reduce runoff from the upper watershed.

3. <u>Capture and Re-use</u>
   a. On-site detention/retention: look at potential for each property owner providing on-site stormwater detention/retention.
   b. Grey water: Re-use of tertiary treated water for multiple uses.

4. Taylor Yard
Develop a multiple use facility on the site of the abandoned rail yard.

5. Power Line Easements
Make use of existing power line easements adjacent to river right-of-way for multiple use projects including stormwater detention.

6. Quarries
Study abandoned rock quarries for potential water conservation uses.

7. Whittier Narrows Dam Diversion
Divert water from the Los Angeles River to Whittier Narrows Dam for water conservation and re-use.

8. L.A. City South-West Management Studies
Review these ongoing studies for consideration.

9. Watershed Mulching
Reduce runoff and erosion, increase percolation.

10. Educational Programs
Educate the public to reduce runoff and improve water quality.

11. Los Angeles (and others) City Ordinances
New ordinances requiring new development projects to reduce amount of runoff generated.

12. University Studies
Two studies already underway which might contribute to future discussions.
a. Cal State Fullerton - Water Quality Study
b. Cal Poly Pomona - Multi-use study for Los Angeles River and Taylor Yard.

13. LACDA Study
Los Angeles County Drainage Area Study to increase the hydraulic capacity along the lower Los Angeles River.

14. LACDA Water Conservation and Supply Reconnaissance Study
Initiated by Los Angeles County Department of Public Works and U.S. Army Corps of Engineers to evaluate ways and means of better conserving our limited water supply. The one-year preliminary study will determine whether economic, hydrological, engineering, environmental and current-use considerations appear to be sufficiently favorable to recommend proceeding to more detailed investigation, the feasibility phase.

| Los Angeles River Master Plan: Flood Management/Water Conservation<br>PRELIMINARY PROJECT IDEAS | | | | |
|---|---|---|---|---|
| | PUBLIC SAFETY | FLOOD CONTROL | CONSENSUS LAND USE | STORMWATER MGMT. |
| 1. Fresh Water Harbor | | | | |
| 2. National Forest Watershed Management | | | | |
| 3. Capture and Re-use<br>a. On site detention/retention<br>b. Grey water | | | | |
| 4. Taylor Yard | | | | |
| 5. Power Line Easements (detention) | | | | |
| 6. Rock Quarries | | | | |
| 7. Diversion to Whittier Narrows | | | | |
| 8. Incorporate City Stormwater Studies | | | | |
| 9. Watershed Mulching | | | | |
| 10. Education Programs | | | | |
| 11. City Ordinance (reduce runoff) | | | | |
| 12. University studies | | | | |
| 13. LACDA Project | | | | |
| 14. LACDA Water Con and Supply Study | | | | |

**Los Angeles River Master Plan**
**JURISDICTION AND PUBLIC INVOLVEMENT Subcommittee**

## THE GOALS

The goals developed by the Advisory Committee for jurisdiction and public involvement are:

- ENSURE PUBLIC INVOLVEMENT AND COORDINATE MASTER PLAN DEVELOPMENT AND IMPLEMENTATION AMONG JURISDICTIONS

    - o Develop comprehensive planning goals.
    - o Integrate public involvement.
    - o Coordinate Master Plan management
    - o Clearly define Master Plan objective.

## SUBCOMMITTEE DISCUSSIONS

The members of this subcommittee expressed concern that local authority might be diminished by the imposition of land use, redevelopment and implementation mandates as a result of this project. The subcommittee also discussed ways of improving communication and coordination among communities and organizations, and addressed the importance of involving community members in shaping the Master Plan to reflect their needs and interests. And, finally, they recognized the need for coordination among the jurisdictions in implementing the elements of the plan.

## PRELIMINARY PROJECT IDEAS

1. Sister City/Family of Communities
   Establish sister city/family of communities relationships. This program would be intended to improve communication and coordination of projects among cities along the river.

2. Flow Chart of Jurisdictional Relationships
   Design a flow chart of jurisdictional relationships that would include a directory, and a map showing ownership and jurisdiction of the river channel and easements.

3. Watershed Agency
   Establish a single-focus watershed agency to supersede authority of existing agencies.

4. Maintain Local Jurisdictional Control
   Respect local jurisdictional control so that decisions with respect to land use, redevelopment, and implementation are made at the local level.

5. Facilitate Adoption of Master Plan
   Facilitate adoption of the Master Plan so the goals and objectives of the plan are clearly identified and implemented comprehensively.

6. Community Participation Program

Establish a process of extensive community participation so that all sectors of the community are given an opportunity to review and provide input to the Master Plan process.

| Los Angeles River Master Plan: Jurisdiction and Public Involvement<br>PRELIMINARY PROJECT IDEAS | | | | |
|---|---|---|---|---|
| | COMP. PLANNING GOALS | PUBLIC INVOLVEMENT | COORDINATE MASTER PLAN MANAGEMENT | DEFINE MASTER PLAN OBJECTIVES |
| 1. Sister City/Family of Communities | | | | |
| 2. Flow Chart of Jurisdictional Relationships | | | | |
| 3. Watershed Agency | | | | |
| 4. Maintain Local Jurisdictional Control | | | | |
| 5. Facilitate Master Plan Adoption | | | | |
| 6. Community Participation Program | | | | |
| | | | | |

**Los Angeles River Master Plan**
**RECREATION Subcommittee**

## GOALS

The goals developed by the Advisory Committee for recreation are:

- PROVIDE A VARIETY OF RECREATIONAL OPPORTUNITIES ALONG THE RIVER IN A SAFE ENVIRONMENT

- ENSURE SAFE ACCESS TO AND COMPATIBILITY BETWEEN THE RIVER AND OTHER ACTIVITY CENTERS

    - o Secure ongoing/long-term funding for construction, maintenance and land acquisition.
    - o Provide a network of continuous multi-use trails.
    - o Ensure access and compatibility between the River and other activity centers.
    - o Provide for a variety of active and passive recreational opportunities.
    - o Ensure public safety and security along the River.
    - o Expand open space.

## SUBCOMMITTEE DISCUSSIONS

One concern of this group was that there be a variety of recreational uses along the river and that they be compatible with the particular areas. For example, the group pointed out that while some areas have the potential for active recreation, passive recreation might be more suitable for other sections. In addition, it is important to provide transition zones between the two types of activity areas.

This group was very concerned that public relations and marketing techniques be used as soon as possible to make people aware of this planning process. A successful Master Plan requires active grassroots support from all of the neighborhoods along the river.

Safety was also an important discussion point. The group felt that if any recreation activities are to occur along the river, the users as well as the adjacent property owners, must be informed of and protected from any potential hazards.

Trail issues were also very important to this group. Everyone agreed that filling in existing gaps within the trail system should be a priority. Some participants stated that the trails should be multi-use, while others felt they should be planned as bike trails that could serve as a primary form of transportation in the area.

Although this group focussed on recreation, they felt that a strong funding source would be mandatory for any of these projects to become implementable. One person suggested that joint funding at the City, County and Federal level would be essential in order to implement the Master Plan.

**PRELIMINARY PROJECT AND PROGRAM IDEAS**

1. River Interpretive Plan
   Showing engineering aspects, cultural, historical points of interests. Look at Minneapolis as model.

2. Marketing and Public Relations Program
   Promote the possibilities of the River using tools such as a presentation of a comprehensive vision for the river.

3. Celebrities
   To promote the River (Public Awareness).

4. Network Trails
   Network trails from Hansen Dam to Los Angeles River.

5. Trail Continuity
   Connect trails to form one continuous trail system (connect existing gaps).

6. "Language Change"
   All bikeways should be made for transportation purposes to encourage their use for transportation.

7. Cornfield Property
   In the City of Los Angeles near rail spur for acquisition as River Park with potential for commercial/mixed use.

8. Ralph Dills Park
   (Formerly Banana Park) This neighborhood park is in need of slope protection and enhancement and improved access to the river.

9. Safety Training Program
   Before opening river to the public, must educate the public on potential hazards. Possibly provide demonstration training centers adjacent to the river.

10. River Channel
    Open river channel to recreational activities. Will this disrupt wildlife habitats? What about safety issues?

11. Accessibility
    Ensure that facilities, either on the levees or in the river itself, are accessible to people of all abilities.

12. Water Park Example
    South Bank Australia Community Park, Beach, Recreation and Equestrian Facility. Could a project like this be developed in downtown Los Angeles utilizing abandoned rail lines?

13. Safety Elements
Call boxes, signage, access of ingress/egress, lighting.

14. Trail Access
Better trail access, especially in lower reaches.

15. Educational Programs
Programs that will provide a general public awareness of the River.

16. Trail Widths
Expand trail easements to allow space for landscaping.

17. River Identity
Use design elements to establish a river identity.

18. Vacant Land
Utilize area behind Hansen Dam/multi-use (trails, greenways, etc.) lots of vacant land in this area

**EXISTING PROJECTS AND PROGRAMS**

1. L.A. River Bike Path
City of Los Angeles project, currently in Phase I, to be completed in Summer of 1993. It will run from Los Feliz Boulevard to Zoo Drive on the south west side of the river.

2. L.A. River Bike Path
City of Los Angeles bike path project in Phase II (in study phase) to go from Zoo Drive to Tujunga.

3. Los Angeles River Tree Planting
Along river from Los Feliz Boulevard to Zoo Drive (City of Los Angeles).

4. Arroyo Seco Tree Planting
Arroyo Seco (Northeast Trees).

5. Paramount-Bellflower Rail-Trail
Paramount/Bellflower/LAMTA utilizing old Southern Pacific right-of-way to develop a multi-use trail connecting the Los Angeles and San Gabriel Rivers.

6. Anza Trail
A National Historic Trail being planned by the National Park Service with local participation from Santa Monica Mountains Conservancy.

7. Trail Gap
Proposal to connect Arroyo Seco trail to future trails along the Los Angeles River. (City of L.A.)

8. Wrigley Greenbelt
Being proposed by a homeowners group in Long Beach.

9. "Adopt-A-Reach"
Los Angeles County Department of Public Works program which encourages citizens to care for a short section of the landscape adjacent to the river. (Example: "Ernie's Walk" in Van Nuys)

**EXISTING STUDIES**

1. Bike Path Coordination
The City of Los Angeles and the Los Angeles County Metropolitan Transportation Authority are coordinating on the continuation of the Los Angeles River Bike Path from Barclay Street to Union Station.

2. Taylor Yard Study
A study being conducted by Los Angeles County Department of Public Works and Friends of the Los Angeles River through a grant from the Urban Streams Restoration Program of the State Department of Water Resources. Should be completed in the Fall of 1993.

**ADDITIONAL STUDY IDEAS**

1. Vandalism/Crime Study
Conduct a vandalism/crime study of the entire River area.

2. Physical Impacts Study
Conduct a study which surveys the physical impacts that prospective projects would have on the environment.

3. Land Inventory
Inventory of open publicly owned land along the river.

4. Bridge Design
Investigate trail bridge designs that are adapted to flooding.

| Los Angeles River Master Plan: Recreation<br>PRELIMINARY PROJECT IDEAS | | | | | | |
|---|---|---|---|---|---|---|
| | FUNDING | TRAIL NETWORK | ACCESS/ COMPATIBILITY | ACTIVE/ PASSIVE REC | PUBLIC SAFETY | OPEN SPACE |
| PRELIMINARY PROJECT IDEAS | | | | | | |
| 1. River Interpretive Plan | | | | | | |
| 2. Marketing and Public Relations | | | | | | |
| 3. Celebrities | | | | | | |
| 4. Network Trails | | | | | | |
| 5. Trail Continuity | | | | | | |
| 6. Language Change | | | | | | |
| 7. Cornfield Property | | | | | | |
| 8. Ralph Dills Park | | | | | | |
| 9. Safety Training Program | | | | | | |
| 10. River Basin | | | | | | |
| 11. Accessibility | | | | | | |
| 12. Water Park Example | | | | | | |
| 13. Safety Elements | | | | | | |
| 14. Trail Access | | | | | | |
| 15. Educational Programs | | | | | | |
| 16. Trail Widths | | | | | | |
| 17. River Identity | | | | | | |
| 18. Vacant Land | | | | | | |

| Los Angeles River Master Plan: Recreation<br>PRELIMINARY PROJECT IDEAS | | | | | | |
|---|---|---|---|---|---|---|
| | FUNDING | TRAIL NETWORK | ACCESS/ COMPATIBILITY | ACTIVE/ PASSIVE REC | PUBLIC SAFETY | OPEN SPACE |
| | | | | | | |
| EXISTING PROJECTS AND PROGRAMS | | | | | | |
| 1. Los Angeles River Bike Path | | | | | | |
| 2. Los Angeles River Tree Planting | | | | | | |
| 3. Arroyo Seco Tree Planting | | | | | | |
| 4. Paramount-Bellflower Rail-Trail | | | | | | |
| 5. Anza Trail | | | | | | |
| 6. Trail Gap | | | | | | |
| 7. Wrigley Greenbelt | | | | | | |
| 8. Adopt-a-Reach | | | | | | |
| | | | | | | |
| EXISTING STUDIES | | | | | | |
| 1. Trail Coordination | | | | | | |
| 2. Taylor Yard Study | | | | | | |
| | | | | | | |

| Los Angeles River Master Plan: Recreation<br>PRELIMINARY PROJECT IDEAS | | | | | | |
|---|---|---|---|---|---|---|
| | FUNDING | TRAIL NETWORK | ACCESS/ COMPATIBILITY | ACTIVE/ PASSIVE REC | PUBLIC SAFETY | OPEN SPACE |
| | | | | | | |
| ADDITIONAL STUDY IDEAS | | | | | | |
| 1. Vandalism/Crime Study | | | | | | |
| 2. Physical Impacts Study | | | | | | |
| 3. Land Inventory | | | | | | |
| 4. Bridge Design | | | | | | |

## V. PROJECT STATUS

This report marks the conclusion of Phase B under the Master Plan Work Program outlined previously in Section I.

Phase C, soliciting public involvement through community meetings, will soon begin to map preferred or proposed projects and resolve conflicts. Completion of this phase is tentatively scheduled for Winter of 1994.

Phase D will involve identifying priority projects, specific funding sources, implementing agencies and the development of a timeline schedule. This Phase is scheduled to be completed by Spring/Summer of 1994.

Phase E involves an environmental analysis and review of the Master Plan document and implementation strategies to determine its impact. Completion is due Fall/Winter of 1994.

Phase F, Master Plan adoption, will occur in the Fall of 1995 after soliciting final public support for the recommendations included in the Master Plan. The final Phase, Phase G, involves implementation of the recommended projects by jurisdictional agencies and monitoring of their activities to ensure compliance with the Master Plan. This Phase will be an ongoing process.

## APPENDIX A: ISSUES AND GOALS

Under Phase B, an open process of identifying issues and goals was necessary to develop a Master Plan with implementable projects and recommendations. The process for identifying issues and developing goals was:

**Identify Issues**
- Gather issues from Advisory Committee
- Meeting discussion and brainstorming
- Questionnaires

**Develop Goals Addressing Six Issue Areas**
- Brainstorm positive action statements
- Capture the intent of the action statement in a goal statement
- Write summary goals statement(s) for each of the six issue areas

**Issues**

Information was solicited from the Advisory Committee members during the initial meeting regarding key issues they believed the Master Plan should address. Also, a questionnaire was handed out requesting submittance of any additional issues which should be included for consideration.

The following is a list of issues which were compiled and grouped by the Planning Team under six general topics.

**Aesthetics**
- Graffiti/debris and litter.
- Quality of life/sense of place/community identity.
- River represents a physical, social and economic barrier.
- Need to link river with other greenways to form a network.
- Potential impacts to adjacent land uses.

**Economic Development**
- Low real estate values along certain sections of the River.
- There are opportunities to establish multiple uses in addition to flood control.
- Funding sources and mechanisms.
- Employment, housing, open-space, transportation potentials are not maximized in the River corridor.
- Need for affordable housing.
- The river offers opportunities for economic development.
- Opportunities for tourism and entertainment related uses.
- Ensure public safety and accessibility.

**Environmental Quality**
- Water quality control/river clean-up.
- Preserve and provide for wildlife along the River.

- Need to capture a naturalistic setting to induce a native and naturalized plant and animal habitat.
- Air quality improvement.

**Flood Management/Water Conservation**
- Flood control needs are primary.
- Potential impacts to adjacent land uses.
- Flood Water Management instead of control.
- Need for improved public safety.

**Jurisdiction and Public Involvement**
- Lack of interagency coordination in river planning and development.
- Need to maintain local control over land use, redevelopment and implementation of Plan.
- Clearly define intent of Plan.
- Need to encourage community input and participation.

**Recreation**
- Need to provide improvements to existing parks and better integrate them with River.
- Trails along the flood control channel.
- Need for more open-space, parks and recreation, especially along the River corridor.
- Need for accessibility.
- Lack of continuous bikepaths.
- Safety of facility users.

## Goals

At the third meeting of the Advisory Committee held February 25, 1993, members participated in two workshop sessions to develop draft goals derived from the previous list of issues.

During the workshop, members were asked to participate in two of six groups, each addressing or "brainstorming" on a specific topic: Aesthetics, Economic Development, Environmental Quality, Flood Management/Control, Jurisdiction and Public Involvement and Recreation.

A facilitator for each topic asked the participants to write an action phrase, beginning with a verb, best describing one of the issues listed. Up to three phrases were collected and posted on a flipchart so everyone could see them. The following represents all the phrases collected for each topic.

**Economic Development**

Job/Business Opportunities
- Improve job opportunities.
- Inform surrounding communities of opportunities.
- Use transportation industry to create job market.

- Identify commercial opportunities for tourism.
- Permit local small business opportunities.

Real Estate
- Identify real estate development opportunities along the river.
- Optimize real estate values through clean up and beautification.

Funding
- Utilize state bond revenue to implement non-polluting recreation.
- Utilize transportation funds to finance low cost housing.
- Start user fees.
- Utilize Community Redevelopment Agency (CRA) funds to increase open-space and parks.

Development Strategy
- Maximize various uses in the corridor (transit, recreation, open-space) to trigger economic development; inclusion approach.

Local Jobs
- Projects have local jobs component.
- Establish local job content criteria.

Property Values
- Capture increased real estate value for public benefit.
- Increase real estate values.
- Increase property value through greenway development.

Small Business
- Establish adjacent businesses linked to recreation usage.
- Include concessions, community facilities in greenways/bikeways.
- Encourage tourism, entertainment, commercial recreation.

Development Incentives
- Convert abandoned buildings into multi-use facilities with housing.
- Encourage mixed use, multiple uses.
- Use transit stations to spur joint development and pedestrian oriented urban form.

**Flood Management and Water Conservation**

Public Safety
- River Education: enjoyment, dangers.
- Develop other river uses with public safety in mind.
- Water Management: water quality of sources need to be determined before allowing or planning access by the public.
- Public Safety: increased access to river facilities needs to be monitored at a high level to prevent disasters recently experienced.

Flood Control

- Flood control: solutions should enhance flood control benefits currently enjoyed by the citizens of the adjacent lands.
- Channels and drains must be designed primarily to prevent flood damage and allow water conservation.
- Maintain the river's function as a flood control and water conservation facility.
- Aesthetics, recreation, etc., may be designed into a flood control project.
- Even unattractive devices, if necessary for flood control, should be constructed.

Land Use Decisions

- Potential impacts: access to proposed multi-use areas adjacent to the river sites--coordination.
- The river should support adjacent uses, not vice versa--consistency with adjacent land uses.

Stormwater Management

- Divert/reduce flow through reclamation.
- Measure flow in river--determine "natural" features (water management).
- Additional retention and detention throughout watershed.
- Increase flood retention along corridor (water management).
- Incorporate flood management with joint use where possible.
- Requirement for on site stormwater management.

**Jurisdiction and Public Involvement**

Master Plan Objectives

- Define plan intention.
- Plan should maximize the benefits which can be derived from rivers.

Master Plan Management

- Develop land use/local control plan.
- Ensure local autonomy over implementation alternatives.
- Develop comprehensive watershed/basin management through County government.

Public Involvement

- Develop consensus about river planning.
- Exchange planning goals; groups/agencies.
- Develop interagency positions.
- Agencies continue to solicit input throughout development of Master Plan.

**Aesthetics**

Clean-Up

- Encourage graffiti removal by "adoption" i.e., freeways.
- Educate public regarding litter.
- Include art along the river (freeways, levees, walls).

Identify

- Encourage perception/identity of river unique places and continuity.
- Create community identity.
- Activities to bring people to river.
- Improve quality of life along river; incentives.

Greenways

- Plant native species.
- Green the river.
- Link river with potential greenways.

River Front

- Look for opportunities to change adjacent land use.
- River as frontage; development.

Clean-Up

- Remove litter on river.
- Encourage elimination of graffiti and debris.
- Involve citizens in clean-up.

Interconnected

- Join parks.
- Encourage bikeways.
- Join with other agencies in removing physical barriers.

Beautification

- Create appealing place for business along river.
- Improve land values with greenway instead of concrete.

Community Pride

- Improve quality of life.
- Establish community identity.

**Environmental Quality**

Water Quality

- Develop a monitoring program to address river water quality.
- Involve students with environmental interests in water quality monitoring.

Wildlife Habitat

- Extend wildlife habitat from "wildlands" to river corridor.

Reclamation

- Prepare treatability/feasibility studies to address appropriate re-use and treatment of river water.
- Capture a percentage of flow for use in habitat and re-charge.

Flora and Fauna

- Extend and rebuild wetlands.
- Restore native riparian habitat to encourage reintroduction of native species.
- Restore native tree/plant species along riparian corridor.

Air Quality

- Clean air quality.

Water Quality

- Find ways to conserve and reuse non-stormwater flows.
- Improve water quality and cleanliness of river.

Habitat

- Improve river environment by preserving and enhancing natural habitats where possible.
- Improve water quality and cleanliness of river.

Restoration

- Expand habitat areas at opportunity points such as natural river bottom.
- Trees; re-green the corridor.
- Look at river in historic (pre-channel) context.

Conservation

- Create water detention basins.
- Ensure viable water conservation areas.

**Recreation**

Open Space

- Join with other agencies to provide more open space in river corridor.

Park Compatibility

- Ensure that adjacent projects are landscaped appropriately.
- As bikeways/greenways are built - modify existing parks to orient to river.
- Develop "scenic spots" along river.

Trail Planning

- Establish bike paths and equestrian trails along river.
- Design trails to be compatible with channel flow.
- Coordinate bikeway planning.

Access

- Provide recreational access.
- Provide areas for public to access river.
- Provide access from public transportation.

Security

- Provide security for users of river facilities.
- Activity generators in parks to increase safety; security for users and adjacent property.
- Adjacent land owner/user safety shall be a primary concern.

Safety

- Ensure safety from physical hazards.

Funding

- Parkland bond funds for river.
- Park funding through regional County park sources.
- Seek Federal and State funding for recreational activities.
- Develop revenue generating programs with opportunities for public-private partnerships, such as river rafting excursions, as a continuing funding source for recreation.
- Ensure phased financing for bike path development and operation.

Education

- River as education tool.
- River use as waterway (canoeing).

Continuous Trails

- Provide a running trail along the river corridor.
- Provide for a network of trails that include high activity.
- Provide a comprehensive, continuous trail system (multi-use).
- Optimize bikeways and horse trails.
- Provide a bike path along the entire river corridor.

User Activities

- Facilitate active and passive river recreation areas.
- Provide passive and active opportunity (non-organization, non-organized?).
- Include high activity centers.

Safety

- Provide security along trails and bike paths.
- Identify ways to provide long term security.
- Teach "user" etiquette and safety (among trail users).

Expand Open-Space

- Identify priority segments to develop adjacent to exist open space.

Improvements

- Plant trees along bike paths and trails.

The group then began pairing common or similar phrases together. Once all the pairing and groupings were completed, the participating members were asked to use one or two words which best describe the grouped phrases. These wordings were written on the flipchart next to the phrases.

Next, the group was asked to write a goal statement containing the one or two word description. The following draft goal statements were compiled and condensed by the Planning Team. **Objectives will be developed based on these goals.**

**Aesthetics**

- Improve appearance of the river, encourage river clean-up and promote beautification.
- Increase community pride and promote identity of the river.
- Provide interconnection between communities and recreation facilities.
- Green the river.
- Encourage development of a riverfront.

**Economic Development**

- Provide education, training, jobs and business opportunities to benefit communities.
- Establish long- and short-term funding sources.
- Preserve and enhance real estate values.
- Promote responsible development.
- Ensure maximum citizen involvement in all phases of economic development planning.
- Balance local and regional benefits.

**Environmental Quality**

- Improve and create natural plant and animal habitats.
- Increase water conservation efforts and provide for most beneficial use of river water.
- Improve water quality and cleanliness of river.
- Improve air quality.

**Flood Management/Water Conservation**

- Ensure that public safety is primary.
- Ensure that flood control needs are met.
- Seek consensus on land use decisions.
- Consider storm water management alternatives.

**Jurisdiction and Public Involvement**

- Develop comprehensive planning goals.
- Integrate public involvement.
- Coordinate Master Plan Management.
- Clearly define Master Plan objective.

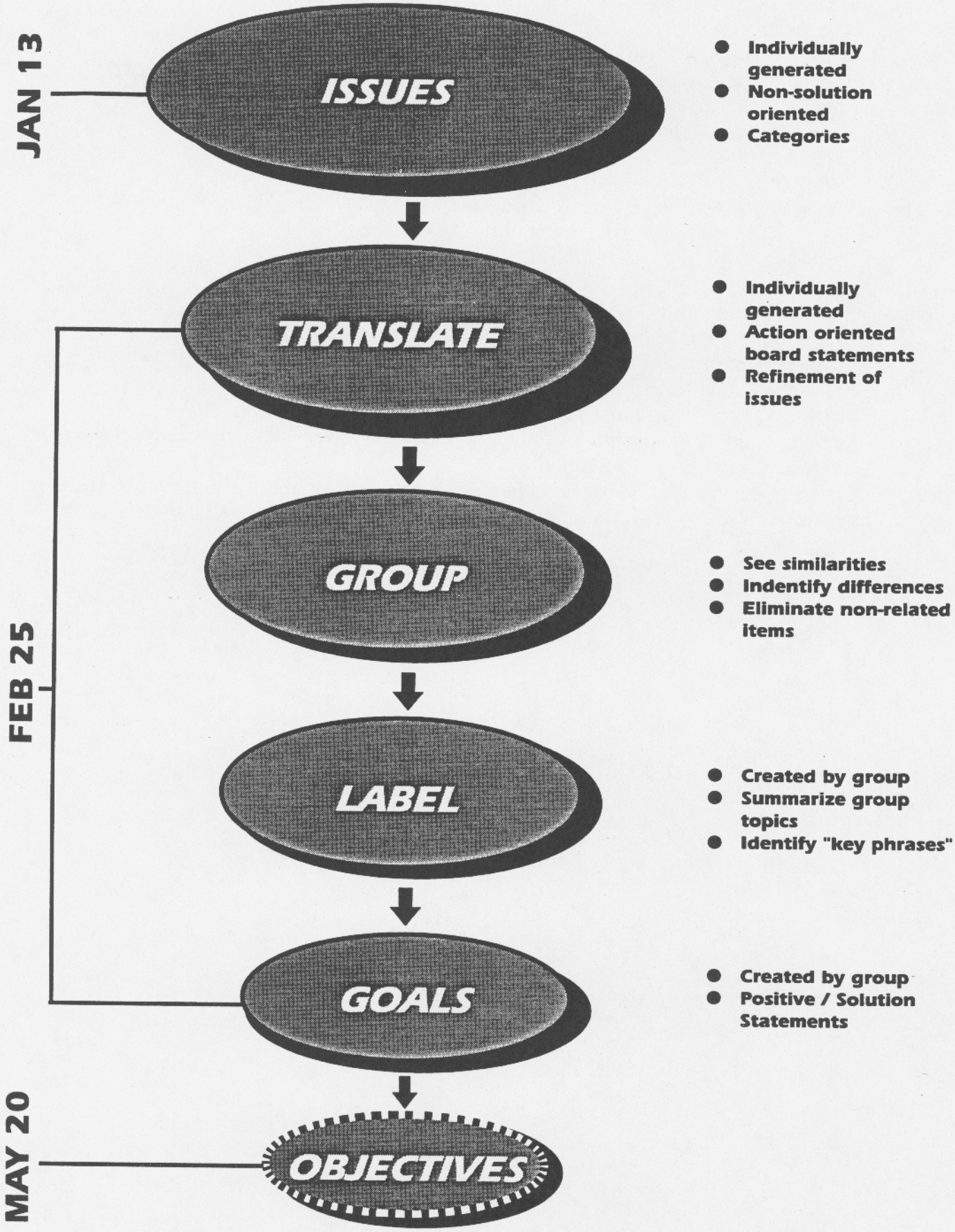
**Recreation**

- Secure ongoing/long-term funding for construction, maintenance and land acquisition.
- Provide a network of continuous multi-use trails.
- Ensure access and compatibility between the river and other activity centers.
- Provide for a variety of active and passive recreation opportunities.
- Ensure public safety and security along the river.
- Expand open space.

The following goals statements were finalized and approved by the Advisory Committee at the April 1, 1993 meeting for inclusion into the Master Plan.

- **Improve communities' pride and appearance of the River.**
- **Promote the River as an economic asset to adjacent communities.**
- **Preserve, enhance and restore environmental resources in and along the River.**
- **Ensure that flood control and public safety needs are met.**
- **Consider stormwater management alternatives.**
- **Ensure public involvement and coordinate Master Plan development and implementation among jurisdictions.**
- **Provide a variety of recreational opportunities along the River in a safe environment.**
- **Ensure safe access to and compatibility between the River and other activity centers.**

# ISSUES, GOALS OBJECTIVES DIAGRAM



## APPENDIX B: MATRIX OF POTENTIAL FUNDING SOURCES

| LOS ANGELES RIVER MASTER PLAN - POTENTIAL FUNDING SOURCES 1993 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PARKS REC.& OPEN SPACE | TRAILS & GRNWS | ENV. RESTR.& CLEAN UPS | WATER-SHED MGMT/ FLOOD PROTECT | REDEV. & HOUSING | HIST. PRESV. | ARTS & CULT. |
| **A. PRIVATE SOURCES** | | | | | | | |
| 1. REI Grants | | | | | | | |
| 2. American Greenway Grant | | | | | | | |
| Foundations: | | | | | | | |
| The Foundation Center | | | | | | | |
| EcoNet Grantmakers List | | | | | | | |
| Trust for Public Land | | | | | | | |
| The Nature Conservancy | | | | | | | |
| The Conservation Fund (American Greenways?) | | | | | | | |
| Santa Monica Mountains Foundation | | | | | | | |
| The Urban League | | | | | | | |
| Coors Brewing Co. | | | | | | | |
| Concerned Citizens of South Central L.A. | | | | | | | |
| Neighborhood groups | | | | | | | |
| Community service organizations: | | | | | | | |
| Rotary | | | | | | | |
| Kiwanis | | | | | | | |
| Lions | | | | | | | |
| Optimists/Soroptimists | | | | | | | |
| In-kind donations | | | | | | | |
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| LOS ANGELES RIVER MASTER PLAN - POTENTIAL FUNDING SOURCES 1993 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PARKS REC.& OPEN SPACE | TRAILS & GRNWS | ENV. RESTR.& CLEAN UPS | WATER-SHED MGMT/ FLOOD PROTECT | REDEV. & HOUSING | HIST. PRESV. | ARTS & CULT. |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **B. CITY/LOCAL SOURCES** | | | | | | | |
| Capital Improvement Programs | | | | | | | |
| General fund | | | | | | | |
| Recreation Enterprise fund | | | | | | | |
| Quimby Act | | | | | | | |
| Zone Change | | | | | | | |
| Lease of facilities | | | | | | | |
| Subdivision process | | | | | | | |
| Board of Public Works - Special Projects (L.A.) | | | | | | | |
| Redevelopment areas | | | | | | | |
| Assessment districts (specifics?) | | | | | | | |
| One percent for art programs | | | | | | | |
| "Tax increment" (state?) | | | | | | | |
| Joint Powers Authorities | | | | | | | |
| Bond issues and intitiatives | | | | | | | |
| Heritage Tree Protection/Relocation Program | | | | | | | |
| Landscaping and Lighting Act of 1972 | | | | | | | |
| | | | | | | | |
| **C. COUNTY SOURCES** | | | | | | | |
| Proposition A (need specifics) | | | | | | | |
| Adopt-a-Trail Program | | | | | | | |
| Adopt-a-Reach Program | | | | | | | |
| Non-Point Source Grants? (State?) | | | | | | | |
| | | | | | | | |

| LOS ANGELES RIVER MASTER PLAN - POTENTIAL FUNDING SOURCES 1993 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | PARKS REC.& OPEN SPACE | TRAILS & GRNWS | ENV. RESTR.& CLEAN UPS | WATER-SHED MGMT/ FLOOD PROTECT | REDEV. & HOUSING | HIST. PRESV. | ARTS & CULT. |
| | | | | | | | |
| **D. STATE** | | | | | | | |
| CALTRANS Mitigation Grants | | | | | | | |
| Parks Grants | | | | | | | |
| Urban Streams Restoration Program | | | | | | | |
| Los Angeles Conservation Corps | | | | | | | |
| Seismic Bond Funds | | | | | | | |
| Dept. of Fish and Game - Cooperative projects w/local | | | | | | | |
| Resources Agency - Environmental Enhancement and Mitigation | | | | | | | |
| Parks and Recreation - Trails Grants | | | | | | | |
| " - Per Capita Grant Program | | | | | | | |
| CALTRANS - Bicycle Lane Account | | | | | | | |
| " - Clean Air and Transportation (Prop. 116) | | | | | | | |
| " - Transportation Development Act (TDA) | | | | | | | |
| Cigarette and Tobacco Tax Benefit Fund (Prop. 99)/State | | | | | | | |
| ?Roberti-Z'Berg-Harris Urban Open Space and Restoration | | | | | | | |
| Fish and Game - Urban Fishing Program | | | | | | | |
| " - Fishery Restoration Grant Program | | | | | | | |
| Environmental License Plate grants | | | | | | | |
| Water Quality Control Board - Nonpoint Source Implementation | | | | | | | |
| Coastal Conservancy | | | | | | | |
| Santa Monica Mountains Conservancy | | | | | | | |
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| | | | | | | | |
| **E. FEDERAL SOURCES** | | | | | | | |
| ISTEA (through LAMTA and CALTRANS) | | | | | | | |

| LOS ANGELES RIVER MASTER PLAN - POTENTIAL FUNDING SOURCES 1993 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **PARKS REC.& OPEN SPACE** | **TRAILS & GRNWS** | **ENV. RESTR.& CLEAN UPS** | **WATER-SHED MGMT/ FLOOD PROTECT** | **REDEV. & HOUSING** | **HIST. PRESV.** | **ARTS & CULT.** |
| Corps of Engineers - Congressional Add-ons to budget (50% of | | | | | | | |
| " - Congressional legislation | | | | | | | |
| " - Section 1135 (Cost limits for Fed. involvement) | | | | | | | |
| " - Los Angeles River Drainage Area Review (LACDA) | | | | | | | |
| " - Floodplain Management Services/Technical Assistance | | | | | | | |
| " - Small Flood Control Projects (w/out Congressional | | | | | | | |
| Land & Water Conservation Fund | | | | | | | |
| Urban Parks & Recreation Recovery Act (UPARR) | | | | | | | |
| | | | | | | | |
| EPA Wetlands restoration grants | | | | | | | |
| National Endowment for the Arts - Design Arts Program | | | | | | | |
| Soil Conservation Service - Watershed Protection and Flood | | | | | | | |
| Bureau of Reclamation - Small reclamation projects | | | | | | | |
| HUD - Community Dev. Block Grants | | | | | | | |
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