San Diego River Park

City of San Diego Draft Master Plan

June 2004

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Mission Trails Regional Park: Where the river flows through the gorge

Mission Valley: The river is a hidden treasure within Mission Valley

Ocean Beach: Where the river meets the ocean

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Executive Summary

The San Diego River has long been a source of life and vitality in the San Diego Region. The water and the rich alluvial floodplain drew the Kumeyaay people to the valley ten thousand years ago. As recently as the 1950's, the San Diego River valley provided green relief from the surrounding urban environment by inviting visitors to a quiet stroll or leisurely bicycle ride.

Since then, the river has suffered under the region's increasing development pressure. Commercial, residential and even industrial uses have expanded into the Valley, pushing ever closer to the river's edge. Extensive mining operations have excavated the river bed for sand and gravel. The proximity of development threatens the integrity of both the river and the wildlife habitat it supports.

The river and its adjacent land uses are disconnected; the river is no longer the focus of the communities that it flows through. A strong movement, led by the San Diego River Park Alliance and the San Diego River Park Foundation, seeks to reverse this condition and restore the symbiotic relationship between the river and nearby land uses. This grass roots effort hopes to create a river-long park, stretching from the San Diego River headwaters near Julian to the Pacific Ocean at Mission Bay.

A New Vision

Creating the San Diego River Park requires a new and innovative vision. This vision must form a comprehensive and integrated approach to physical needs such as improving river health and expanding wildlife habitat, as well as harder-to-quantify needs such as revealing the river's rich history and bringing people to the river.

Understanding these focus areas demands a thorough knowledge of the region's physiographic origins, the current condition of the river, and the human and natural forces that have shaped it. The San Diego River Park effort will produce a diverse, dynamic and balanced network of natural habitat and recreation spaces that are interwoven with adjacent neighborhoods and with the City at large.

The following seven principles form the essence of this new vision and are the guiding ideas against which future design and implementation decisions will be measured.

Reclaim the valley as a Common. Once a green ribbon passing through the developing city, the river valley is now a forgotten place lost behind development. The San Diego River Park offers the chance to recover the river corridor as a place that all San Diego residents and visitors can come to enjoy the experience of nature. By aggregating remaining open land, reclaiming an identifiable river corridor, and restoring the river's riparian integrity, the sense of the valley as a distinct place for people and for wildlife can be re-established.

Reorient development toward the river. Today nearly all development within the valley turns its back to the river, hiding rather than celebrating this important waterway. The San Diego River Park can serve as a catalyst future re-use and development to seek ways to draw upon and enhance the river character, to create a 'front door' to the river. The San Diego River Park can also promote a different way of thinking about new development and redevelopment, encouraging a 'river address' with architecture and landscape that draws upon and contributes to a river valley aesthetic.

Improve hydrologic function. Historically an ephemeral waterway, the river's water level varies wildly from seasonal flooding to negligible flow. Human activity, such as impounding, flow diversion, mining, and flood control, has altered this pattern and created a channelized, perennial river. The San Diego River Park effort must identify viable patterns appropriate to each reach that will improve water quality, sediment transport, and ground water recharge, while also expanding riparian habitat.

Unify fragmented lands. While significant natural open space remains in the San Diego region, it is largely disconnected. Lack of connectivity limits the land's ability to meet wildlife and human needs, in terms of essential habitat and recreational opportunities. The river corridor can become a common spine connecting these lands, both across the valley and along its length. These connections will also reinforce the visual and experiential sense of the valley by expanding the valley's native plant communities.

Emphasize a continuum of experience. The river corridor reflects the vitality and experience of a landscape that is diverse and changing throughout the valley, from the ocean to Mission Trails Regional Park. Protecting the distinctive character of each section of the valley must go hand and hand with creating a cohesive San Diego River Park experience. Sensitive transitions between landscape type -- natural and urban, valley and upland, river reach to river reach – are the key to creating a sense of continuity throughout the San Diego River Park.

Reveal the valley history. The valley has long been central to the settlement of the region. The valley history tells a story of the people and the landscape of San Diego. The San Diego River Park Trail is an opportunity to link these historic and contemporary locations, stimulate public interest in the areas, and expand the public's knowledge about the prehistoric and historic land uses within the valley. Increased public interest and knowledge will benefit these sites by instilling a sense of responsibility for their preservation and care.

Balance people, water and wildlife. The San Diego River Park will serve a diverse set of needs, and these needs will, at times, be in conflict. To suceed, we must find a balance that best serves the human, ecologic and wildlife, and economic demands in the valley. Each of these interests has a place within the multi-faceted system that is the river valley, and the San Diego River Park must accommodate and welcome all of them.

Looking Ahead

These seven principles create the basis for a set of comprehensive, concrete recommendations that will make the San Diego River Park a reality. These recommendations range from general over-arching steps that affect the entire river corridor to specific actions that are local and achievable by organized volunteers.

Foremost among them are five key recommendations that will create the critical structure upon which all other pieces of the San Diego River Park will rest.

- Establish a continuous trail system with common access, connection to communities, and interpretative opportunities.
- Create a string of open spaces and parks through acquisition of key parcels.
- Provide and preserve a broad corridor for native wildlife habitat secured through open space easements and/or land acquisition.
- Connect the valley to upland open space through the use of open space easements and re-vegetation of road and utility rights of way.
- Improve the river and water quality by separating the primary river flow from ponds and creating a broader corridor with more meander.

This Master Plan presents two sections of additional recommendations. The first of these sections addresses specific issues of hydrology and water quality, habitat and wildlife, recreation and cultural interpretation, and public art. The second section examines the existing condition and San Diego River Park goals for each specific segment (reach) of the river, and makes recommendations for each reach.

Steps

This Plan identifies a multitude of elements and tasks needed to create the San Diego River Park, many of which can begin immediately. Initial implementation hinges on environmental and economic conditions. A Programmatic Environmental Impact Report (PEIR), required by the State of California, must be prepared to analyze the impacts of specific river corridor projects.

Analysis of the economic costs and benefits must also be prepared to ensure that the San Diego River Park will be carried through to completion. The economic analysis should include short and long term funding strategies for both capital improvements and long-term operation and maintenance costs. This assessment should also explore the costs and benefits of the Park to the City and to private land owners along the river corridor.

Tremendous commitment and effort on the part of the community, volunteer organizations, individuals, and public officials has brought the concept of the San Diego River Park to this point, but much work remains to bring it to life. In many respects, the San Diego River Park already exists in the minds of the residents of San Diego. One small, quiet step of announcing the river's presence with signs has attracted interest throughout the community. Even larger steps are ahead, and bringing people back to the river will be the next move toward rejoining the City and the River, and toward making the San Diego River Park a part of the urban fabric of the City of San Diego.

Introduction

Introduction

An Historic Opportunity

The creation of the San Diego River Park is an historic opportunity to take the first steps toward reconnecting the San Diego region with its namesake waterway. With the guidance of the San Diego River Park Foundation and support of the San Diego River Coalition, the San Diego River Conservancy, the San Diego River Park Alliance, and the people and members of interested organizations who live within the watershed, the Park is on its way to becoming a reality. The San Diego River Park will aim to shift how the river is envisioned and understood throughout its watershed, and the City of San Diego is at the forefront of this effort. Envisioned as a waterway that is healthy, publicly accessible and active with wildlife, the San Diego River can reassert itself as the focus of the valley and an asset to the community. The river can become once again a reason to visit, live, work and play in the valley itself.

Vision

The San Diego River today is an impacted and managed system severely altered and constrained by mining, flood control and increasing development pressure. Commercial, residential and industrial uses have expanded in the valley floor, ever encroaching on the river's edge. Although mining activities are being phased out of the valley, flood control and development pressure remain constant issues. These conflicting needs in the valley have compromised not only the integrity of the river and the wildlife habitat it supports, but also the value of the river as a community resource.

The establishment of the San Diego River Park can reverse this trend; it will return the river to the people, integrating the river valley into the life and landscape of San Diego. As the water and the rich alluvial floodplain drew the Kumeyaay people to the valley ten thousand years ago, a healthy riparian environment interspersed with trails, parks and open space, all united by a flowing, clean river, will draw the people of the San Diego region back to the river.

This new park model will create a string of parks linked by open space, trails, and green corridors, as a multi-layered system that will serve a variety of needs, offering recreational, environmental and habitat benefits. This system of 'interconnected parks' has proven successful across the nation, in Minneapolis's Chain of Lakes, Boston's Emerald Necklace and Esplanade, and Denver's Park and Parkway system.

The San Diego River Park will draw upon San Diego's coastal location, enhancing the ocean edge that has historically defined the City and extending this character inland. The San Diego River Park will allow people to see and interpret the river's natural transitions as it flows from mountain to canyon to ocean, making the river processes visible and accessible to all users.

The experience of nature and City will be fused together in the San Diego River Park system, creating a natural corridor within the urban mileau. Like San Diego's other great parks-- Balboa, Mission Trails and Mission Bay among them—the San Diego River Park will provide a natural resource that becomes a part of the day-to-day life of the City, a place of the City rather than a place apart from the City.

Project Description

In September of 2003, the City of San Diego initiated a nine-month study to prepare a comprehensive study of the San Diego River within the City of San Diego. This effort, titled the San Diego River Park Draft Master Plan, is spearheaded by the Civitas team and will provide guidance to the City of San Diego in taking the incremental steps necessary to implement the San Diego River Park.

This Plan will also inform the City's ongoing planning processes, and assist City and outside agencies in working toward a healthier river environment. The Plan will construct a framework that adjacent communities can use to set policy on riverfront land uses within their boundaries, and encourage coordination between San Diego River Park planning and other future development along the length of the river corridor.

Confluence Park - Denver, CO

Project Origins

The San Diego River Park Master Plan is the culmination of many years of effort and discussion by dedicated members of southern California communities. The concept of preserving the river valley as dedicated and protected open space first generated discussion in 1975 when Kevin Lynch published *Temporary Paradise, A Look at the Special Landscape of the San Diego Region.* This report reflected the author's subjective observations of the regional landscape; while the report resulted in little action, it did lay the groundwork to begin thinking of a long-term vision and plan for the river valley.

In 2001, The San Diego River Park Foundation was formed to coordinate the efforts of the many community groups and other organizations dedicated to the San Diego River, and to work towards making the San Diego River Park a reality. A community-based, grass roots non-profit organization, the Foundation provides organizational and financial support to projects that will help to establish a river-long park. The Foundation works with local groups to encourage stewardship of the riparian environment, and to support projects that will restore and enhance the river, provide community facilities, and create opportunities for citizens to learn about the rich history of the San Diego region.

In this same year, Mayor Dick Murphy of San Diego invited Federal, State, County, City of San Diego and City of Santee elected officials to form the San Diego River Park Alliance. The Alliance provides support on political issues relating to the creation of the San Diego River Park, and hopes to one day see a San Diego River Park extending from its headwaters in the Cuyamaca Mountains to the mouth at the Pacific Ocean.

With the support of the San Diego River Park Alliance, the San Diego River Park Foundation initiated an effort to develop a Conceptual Plan for the entire San Diego River corridor. Engaging the 606 Studio program, a group of third year graduate students and faculty at the Department of Landscape Architecture at California State Polytechnic University, Pomona, a framework was created though extensive community workshops throughout the river corridor. The result of this effort, the San Diego River Park Conceptual Plan, outlines the broad goals and objectives for the San Diego River Park, focusing on the stretch from El Capitan Reservoir to the Pacific Ocean. These goals serve as the basis for the preparation of this Master Plan focusing on the River within the City of San Diego. The Conceptual Plan was approved by the San Diego River Coalition and unanimously accepted by the San Diego River Park Alliance.

The effort to protect, preserve and enhance the San Diego River and its

watershed is now spearheaded by six organizations, listed below.

San Diego River Park Foundation
The Foundation is a 501 (c)(3) non-profit organization that is the host and chair of the San Diego River Coalition meetings. It acts in the capacity of a resource to the numerous groups working on establishing the San Diego River Park and to the community in general. It is a central repository and clearinghouse for information and maintains the www.SanDiegoRiver.org web site.

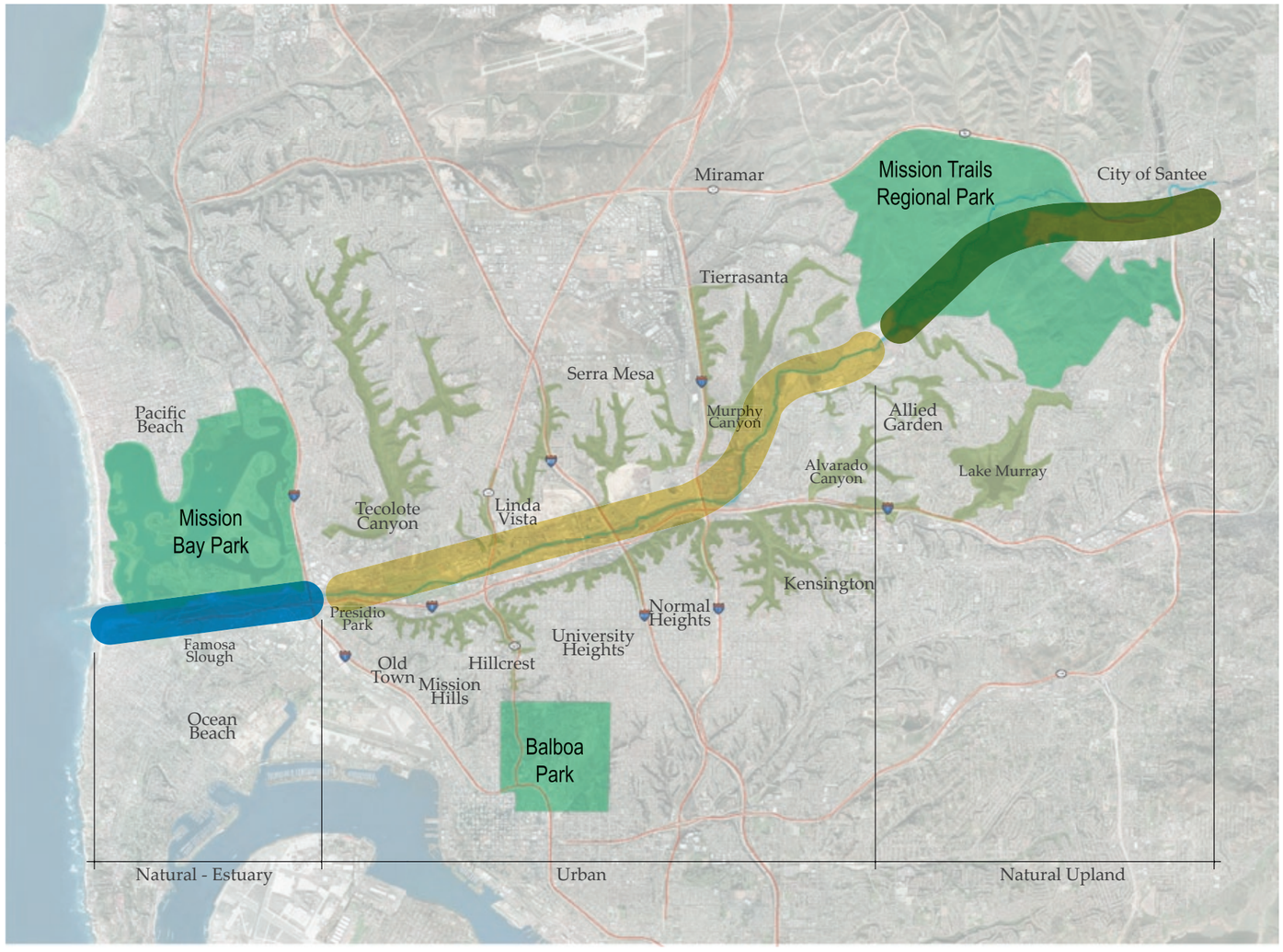
San Diego River Coalition
The mission of the San Diego River Coalition is to preserve and enhance the San Diego River, its watershed, and its natural, cultural, and recreational resources. This coalition of non-governmental organizations acts as the citizens' advisory committee for the San Diego River Park. The Coalition holds public meetings with many of the governmental and quasi-governmental entities working on river issues.

San Diego River Park Alliance
Formed and chaired by Mayor Dick Murphy, this organization addresses policy issues relative to the establishment of the San Diego River Park. Members of the Alliance include local, state and federal elected officials, the Executive Director of the San Diego River Park Foundation, members of river-oriented organizations, and the Helix Water District, which owns significant land holdings along the San Diego River.

San Diego River Conservancy
Created expressly to work on the entire length of the San Diego River Park, this new state agency has a governing board of nine voting and two nonvoting members. The Conservancy's members include state officials, local elected officials, and community members.

Select Committee on Parks and River Restoration
Chaired by Assembly Member Christine Kehoe, this group includes other members of the California Assembly interested in park and river issues. The Committee studies how the State of California can best assist with issues related to the San Diego River.

San Diego River Watershed Workgroup
The Workgroup includes interested individuals, organizations, and agencies who are working to develop a management plan for the San Diego River Watershed. Although the Workgroup's efforts are separate



Planning Area

and distinct from the San Diego River Park, this group will incorporate the San Diego River Park into its plans.

Report Organization

This Draft Master Plan report contains three key sections: Principles, Recommendations, and Implementation Strategy. The first section describes seven principles that will guide San Diego River Park planning and implementation. These principles are the overarching goals against which all decisions should be tested.

The second section identifies a series of recommended actions and projects that are necessary to move the San Diego River Park from concept to reality. These recommendations are divided into two sections that deal with the river as a whole, and with the unique needs of each river section, or reach. The third section of the document describes the potential phasing and prioritization of the recommended actions.

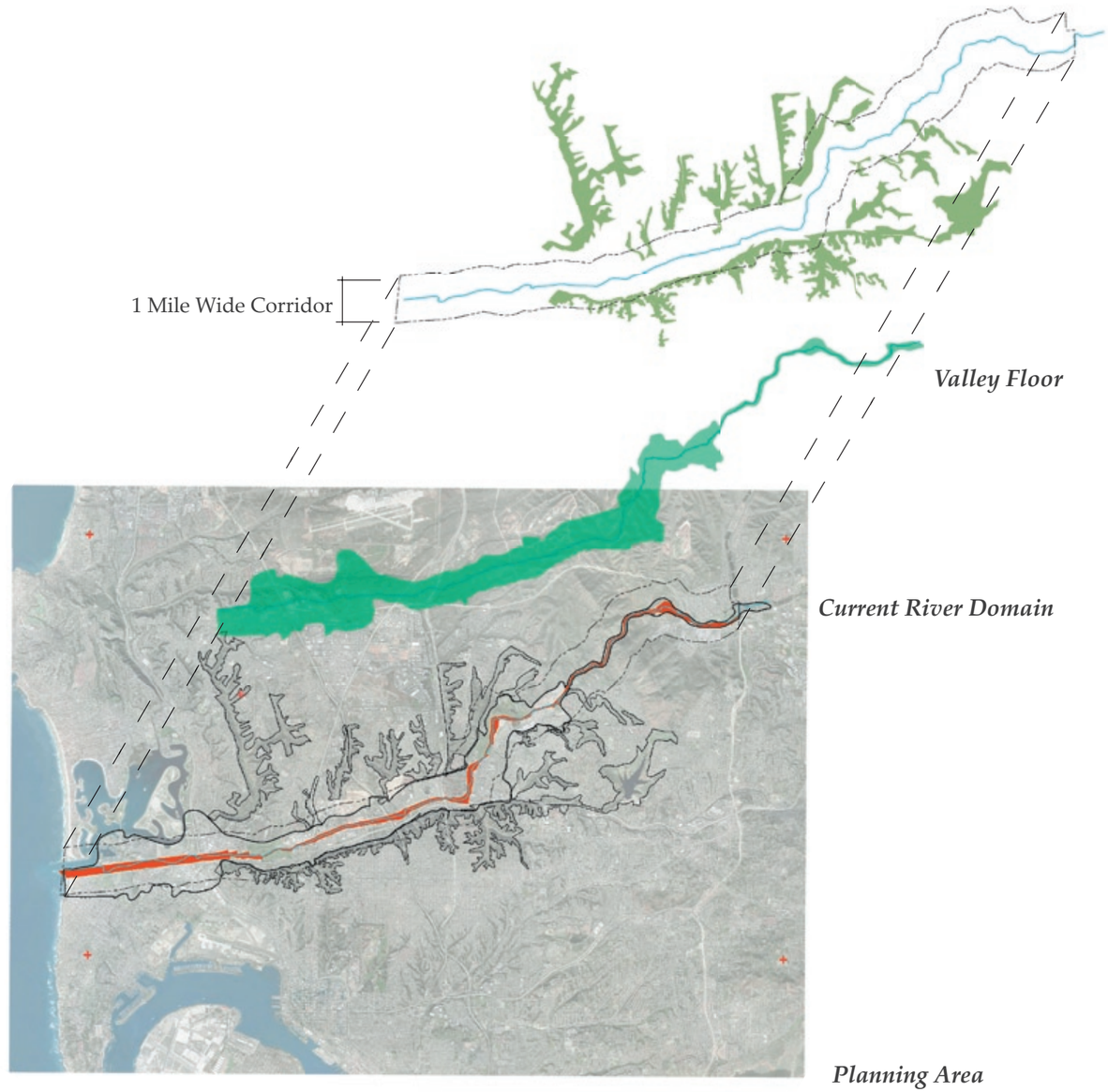
This report is the synthesis of a nine-month process. Much more work remains to bring the entire San Diego River Park to fruition. Additional studies, outlined in the implementation section of this document, will follow this Master Plan effort.

Planning Area

This Plan focuses on the section of the San Diego River within the boundaries of the City of San Diego extending from the Pacific Ocean at Mission Bay to the City of Santee. The project area is defined as a corridor extending one-half mile on each side of the river. This area is consistent with that defined by the San Diego River Conservancy to where funding can be applied. However, the area of interest and influence extends well beyond this half mile limit. To be truly comprehensive, the Plan must consider the area of influence. This area is closely related to the topography of the river valley, its adjacent canyons and the remaining open space of the uplands. Of particular interest are Tecolote Canyon, Murphy Canyon and Alvarado Canyon; these areas offer significant potential to substantially improve connection between these canyons and the San Diego River valley.

The project area is bookended by two major parks, Mission Bay Park and Mission Trails Regional Park. These parks have significance not only to the city, but to the region and beyond, and can be linked by the San Diego River Park.

One of the great challenges of creating the Park lies in the fact that much of the land along the river is in private ownership. It is critical that the San Diego River Park planning effort work with the owners of these parcels to open the corridor to public access, either through acquisition of key parcels or by establishing open space easements. The river floodway, the area that has historically experienced periodic flooding,



is of particular importance- as it provides water quality buffer, habitat, and recreational space. Acquisition or easement creation within the floodway should be given high priority.

A large amount of land adjacent to the river lies in highway, street and utility rights-of-way. This land, often considered a 'leftover' and factored out of the overall landscape equation, offers further opportunity increase habitat and landscape connections.

The Plan divides the river corridor within the City of San Diego into six subsections, or reaches, based upon topographic characteristics, river condition, and jurisdiction. These reaches include the ***Estuary*** (extending from the ocean to the Mission Valley Preserve), ***Lower Mission Valley*** (extending east to I-15 and including Qualcomm Stadium), the ***Confluence*** (of Alvarado and Murphy Creeks with the San Diego River), the ***Upper Mission Valley*** (extending from Friar's Road Bridge to Mission Trails Regional Park), the ***Gorge*** (within Mission Trails Regional Park), and the ***Plateau*** (upstream and east of Mission Trails Regional Park). There are issues and potentials that are shared by all of the reaches as well as those specific to each individual reach.

Project Benefits

Creating a series of linked open spaces will benefit the City of San Diego on multiple scales. The most significant benefit will be the contribution of the San Diego River Park to help define the character of the City of San Diego. As the structure of the canyons and mesas influenced the original settlement of the region, the valley can once again provide an organizing element of nature on the scale of a city that builds on its beaches. The San Diego River Park will improve watershed quality, as well as enhance the day to day quality of life for residents using the corridor for play, fitness, and commuting.

San Diego is and has always been defined by its relationship with the ocean. The San Diego River Park will engage that edge and draw it inland as it interprets the large-scale role and function of the river. Much as Central Park defines New York City, the combined power of the river valley and the coastal beaches define San Diego, and should be a part of the daily experience of the city.

A New Identity. The San Diego River Park's most significant benefit may be its ability to create a wonderful new way to see the city. By linking two of the area's rich's natural and recreational resources, Mission Bay Park and Mission Trails Regional Park, the San Diego River Park Trail offers a new way to play and move through the city. An additional link to Balboa Park will connect the river corridor into the heart of the City. The San Diego River Park stands to become as vital a resource as the city's other great parks. By connecting these three parks, the San Diego River Park itself will create a great source of pride and a new identity for the city.

Direct Benefits. The San Diego River Park will unify the city. Every neighborhood in and adjacent to the river valley will connect to the San Diego River Park, which will connect each of these neighborhoods to the city's other great parks. In addition, newly developed parks are proposed within the valley itself, offering an even larger expanse of experience to San Diego River Park users. The new San Diego River Park will also connect isolated pockets of development along the river with established neighborhoods, knitting the valley into a whole and cultivating a valley identity.

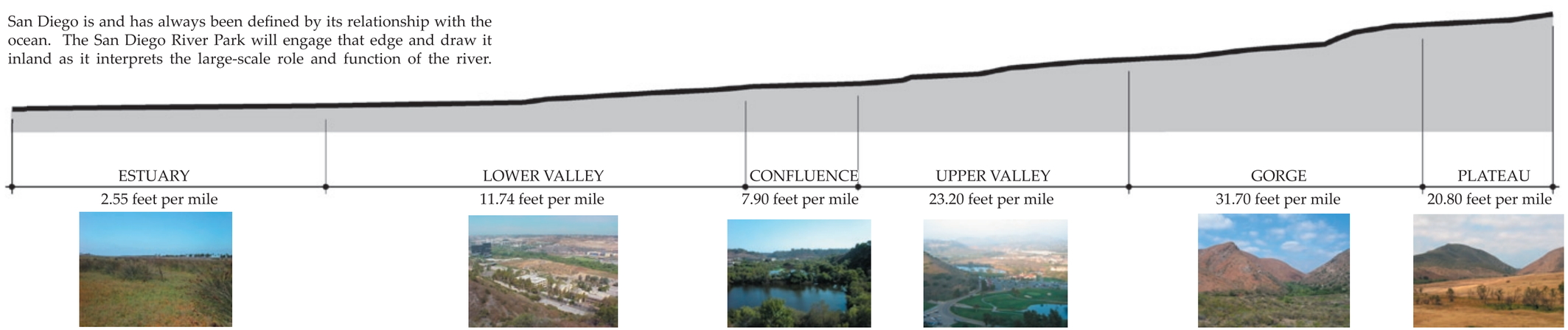
By improving valley conditions and river health, the San Diego River Park will enhance property values along the river corridor. The river will become an asset, and will encourage environmentally sensitive, high quality design and development at its edge, for both new projects and redevelopment.

Ecological Benefits. Today the wildlife habitats within the river valley are disconnected, deteriorated and isolated from upland habitat. The San Diego River Park offers the opportunity create significant new habitat and reconnect existing habitat within and across the valley. Improvements will particularly benefit birds, as they are most able to traverse development and disconnects. Currently, the native habitat within the valley is inaccessible to humans, and is therefore disconnected from the daily experience of living in the region. By expanding wildlife habitat and re-building animal populations, this natural presence can once again be part of the day to day experience of San Diegans. To be successful, much of the habitat must remain protected from human access. However, a balance must be found that increases awareness of the fragility of the system and educates river valley visitors about hte wildlife and habitat of the valley.

Educational Benefits. The creation of the San Diego River Park and Trail offer the opportunity to educate the community of its natural systems and its historic significance. Many community groups are already involved, and the process of creating the San Diego River Park increases the opportunities for these groups to become involved with improving the resource.

Schools and universities can also benefit from the first-hand experience of the outdoor classroom the San Diego River Park can provide. By engaging Scripps Institution of Oceanography, San Diego State University, University of San Diego and other institutions, a science-based coalition can be created that can study the river and build upon each others' work in the valley, and give input to the parks' design and management.

Potential Economic Benefits. By improving the condition of the



San Diego River Transect

valley and the river health, the San Diego River Park will enhance the value of property along the corridor and encourage them to evolve toward a better use. The improved river will be an asset that will leverage higher quality land uses in the future.

There are a number of sites along the river that are isolated from the neighborhoods. The river gives these properites an identity and address within the valley and may encourage redevelopment with an orientation to the river. There will be direct benefits to the City from the increase in property value, and from the increase in pedestrian/tourist activity in the valley. Further benefit should be anticipated by an increase in private reinvestment in response to the presence of the park. Analysis of these benefits is an important next step to determine how to balance the cost of acquiring land and developing the park within the anticipated economic benefit.

Public Process Summary

An important goal of the Planning process was to engage the public and build upon the momentum and enthusiasm generated by the Conceptual Plan. Central to this effort were monthly meetings and workshops with the San Diego River Coalition; these meeting were open to the public and well-attended by community members. Regular meetings with a Technical Advisory Committee also played a major role in the process. These meetings included key City of San Diego, San Diego County, and City of Santee staff, as well as representatives of the San Diego River Park Foundation. In addition, two public workshops and two public meetings invited broader community input; these meetings assisted the Civitas team in confirming key issues, exploring planning options and drafting recommendations. The public outreach effort included:

- Meetings with adjacent communities
- Meetings with elected officials
- Public forums (four, associated with key project phases)
- Individual telephone interviews with stakeholders
- Information on the San Diego River Park Foundation web site (www.sandiegoriver.org)
- E-mail announcements
- Television "infomercial" about the project; this televised segment also announced public meetings
- Formal and informal presentations to planning groups and park and recreation organizations such as the Citizens Advisory Committee of Mission Trails Regional Park and the Mission Bay Park Committee.

Current Citywide Planning Policies

Exploring the San Diego River

Citizen Advisory Committee Public Meeting

The planning area for the San Diego River Park encompasses three council districts and lies within or is influenced by fifteen community planning areas. The San Diego River Park also intersects the planning boundaries of two major parks and several regional planning documents, including the San Diego Watershed Urban Runoff Management Plan, the draft San Diego Natural Resource Management Plan and an Urban Drainage plan currently in study by the Bureau of Reclamation. With such a complicated planning and jurisdictional structure, it is important to understand the context surrounding the San Diego River Park.

This section presents a brief description of the various planning documents in force along the river corridor, and discusses the relationship between these plans and the San Diego River Park planning process. The plans described here have particular influence on the implementation of the San Diego River Park.

Finally, it should be noted that while the San Diego River Park Master Plan does not intend to supersede or replace existing planning documents, it does propose overarching general guidelines that will promote continuity and a cohesive San Diego River Park character. These guidelines, presented in a later part of this document, addresses open space and trail buffers, trail conditions, signage and lighting.

San Diego River Park Conceptual Plan

The San Diego River Park Conceptual Plan was initiated in early 2002 by the San Diego River Park Foundation as a means of creating a framework to establish a San Diego River Park along the length of the San Diego River. The Conceptual Plan was prepared by students in the Department of Landscape Architecture at California State Polytechnic University, Pomona and completed in June 2002. The plan focuses on the stretch of the river from El Capitan Reservoir to the Pacific Ocean, and is intended to present a detailed examination of the cultural context, water resources, plants and animals, and cultural and educational opportunities upon which an overall vision for the San Diego River Park can be built. The overarching goal of the Conceptual Plan is to assist communities and stakeholders in shaping their vision for the San Diego River Park. The plan seeks to establish a healthy environment for the San Diego River Park, acknowledging both natural and human systems in creating an integrated whole. The Conceptual Plan seeks to achieve this goal by accomplishing the following objectives:

- To conduct an inventory and analysis of the resources and conditions of the watershed.
- To develop a conceptual plan that reflects community desires while enhancing the natural function of the river corridor.
- To develop design patterns and recommendations as a guide for design and implementation of the Park as a unified system.
- To illustrate the potential application of the conceptual plan by develop design concepts for specific sites.
- To provide recommendations for future implementation of the Park.

The Conceptual Plan identifies four broad categories of issues-Historic Recognition, Water Management, Habitat Enhancement, and Recreation/Education. Historic Recognition includes the rich history of the river valley and its significance to the settlement of the San Diego region. Water Management explores issues of sediment transport, water volume and water quality. Habitat Enhancement identifies key issues related to preservation of native species and connectivity between open space areas, and Recreation/Education identifies issues of connectivity between parks and access to the river corridor. These issues provide the basic framework for organizing the issues and ideas for the Conceptual Plan, and are carried forward in this document.

The Conceptual Plan process included extensive public involvement with the multiple communities located along the river corridor. This effort included three workshops in February of 2002 and numerous presentations to communities and local groups affiliated with the process. This process led to broad based support for the San Diego River Park and consensus on the critical issues leading to the planning goals and objectives.

More information regarding this plan may be found at the San Diego River Park Foundation web site at: www.sandiegoriver.org.

City of Villages - General Plan

The Progress Guide and General Plan (General Plan), last updated in 1989, established systems across the City of San Diego for phasing the development of new communities concurrent with public infrastructure. During the 90's the City approached build-out with less than ten percent of its area available for development. The Strategic Framework Element, a new chapter of the General Plan, shifts San Diego from a suburban, new growth strategy to one of infill-based redevelopment. The San Diego City of Villages Plan is the central concept of this element. The City of Villages Strategy is designed to address growth and improve existing communities by concentrating civic programs such as schools, employment, commercial and residential into existing metropolitan areas. The in-fill (denser) "villages" would be linked by mass transit. The regional transportation entity, MTDB, is working on the initiative deemed "Transit First" that will significantly expand the region's existing transit service.

The General Plan vision states the need for the city to evolve as a place of great cultural and physical diversity. The plan recognizes the need for quality open space, physical, cultural, and social diversity, recreation, and a regional approach to planning; these elements are critical for the city to evolve into a great cultural center in the 21st century. In February 2004, the City Council unanimously approved five innovative projects as Pilot Village demonstration projects for the City of Villages strategy. Three of these projects occur in the densely populated communities on the mesas a few miles south of the river. As the City of Villages strategy proceeds, it will become more important to strengthen the open space, bicycle and pedestrian (hiking) linkages south, up to these neighborhoods.

More information regarding this plan may be found at:
http://www.sannet.gov/cityofvillages/vision/indes.shtml

MSCP

The San Diego County Multiple Species Conservation Program Final Plan identifies Mission Trail Regional Park and the East Elliott area as one of sixteen biological core areas and the San Diego River riparian corridor west of Mission Trails Regional Park as a linkage between them. The Mission Valley side slopes and the tributary canyons are identified in the City of San Diego Multiple Species Conservation Program Subarea Plan as urban habitat areas, which in the study area are not included as part of any of the major planned areas in the Multiple Species Conservation Program Subarea Plan. The majority of urban habitat areas consist of canyons with native habitats in relative proximity to other Multiple Species Conservation Program areas providing habitat. These areas contribute in some form to the multiple habitat planning areas (MHPA), either by providing habitat for native species to continue to reproduce and find new territories, or by providing necessary shelter and forage for migrating species (mostly birds). These areas contain a mix of habitats including coastal sage scrub, grasslands, riparian/wetlands, chaparral, and oak woodland. The lands are managed pursuant to existing Natural Resource Management Plans, Landscape Maintenance Districts, as conditions of permit approval, or are currently not managed. The areas also contribute to the public's experience of nature and the local native environment.

San Diego Watershed Urban Runoff Management Plan

The San Diego Watershed Urban Runoff Management Plan was initiated in January 2003; when completed, this management plan is designed to 'protect

the natural resources within the watershed and ensure sustainability for future generations.' The plan is intended to assist various agencies and stakeholders in the San Diego Watershed in identifying and prioritizing actions necessary to protect and/or restore 'groundwater resources, native vegetation, water flows, riparian zones, beneficial uses of waters and overall water quality.' In accordance with the Municipal Storm Water Permit process, a program has been developed for the San Diego Watershed aimed at increasing the quality of the water resources of the watershed while 'balancing economic, social, and environmental constraints.' This program identifies four main objectives:

- develop and expand methods to assess and improve water quality within the watershed
- integrate watershed principles into land use planning
- enhance public understanding of sources of water pollution
- encourage and develop stakeholder participation.

More information regarding this plan may be found at: http://www.projectcleanwater.org/html/ws_san_diego_river_plans.html

San Diego River Natural Resource Management Plan

The City of San Diego is currently finalizing the San Diego River Natural Resource Management Plan (SDNRMP). The goal is to have a plan that will facilitate the development of sound management practices that are consistent with the goals of the San Diego MSCP Subarea Plan. This natural resource management plan 'recognizes the value of natural resources along the San Diego River and provides for protection, enhancement, and management of these resources.' The plan also assists the city by clearly defining the 'expectations for natural resource protection' and to facilitate the permitting process at the federal, state, and local level. The plan area consists of the river riparian corridor from Interstate 5 to Mission Trails Regional Park, excluding the First San Diego River Improvement Project (FSDRIP) and the Riverwalk Golf Course property.

The 'Overall aim of the NRMP is to provide the City staff with a document that helps to direct current and future management and acquisition activities to maximize benefits to the San Diego River as a natural and cultural resource within the framework of the existing, applicable land use plans.'

More information regarding this plan may be obtained through the City of San Diego Park and Recreation Department.

City of San Diego Bicycle Master Plan

The City of San Diego Bicycle Master Plan was created to promote a more bicycle friendly city, and thereby contribute to an elevated quality of life for all San Diegans. This document has not yet been approved by city council.

The Bicycle Master Plan cites two primary goals: implement a reliable alternative form of transportation (bicycle) to ease the city's growing traffic congestion, and increase the city's quality of life by promoting cycling as a recreational activity. Safety is a primary concern for current and would-be bicycle commuters, making a safe and easily accessible bicycle infrastructure a priority for this planning effort. This infrastructure should meet the needs of both the daily commuter and the casual recreational user.

The Bicycle Master Plan addresses the San Diego river corridor as well as downtown, and identifies connection of the river corridor's fragmented collection of Class 1 bikeways as a top priority. The Bicycle Master Plan also described peripheral connections perpendicular to the river that link the surrounding communities with the main trail.

Current Community Plans

Of the fifteen community planning areas in on or adjacent to the river valley, four are bisected by the river itself: Navajo, Tierrasanta, Mission Valley and Ocean Beach. These community planning areas,

through their guidelines, can directly influence the relationship between development and the river. This relationship determines the physical character and health of the river. As community plans are updated, the recommendations and general guidelines outlined in the Plan can be integrated into the community plans and serve as tools for implementation of the San Diego River Park within their jurisdiction. While this Plan does not attempt to write specific design guidelines for the unique conditions of each community, it does include overarching general guidelines that recommend open space and trail buffers, trail conditions, signage and lighting.

Ocean Beach Precise Plan

The Ocean Beach Precise Plan identifies several primary issues which must be considered in the future planning. Among these issues is the preservation of the natural integrity of the San Diego River. Other issues include potential uses of city land, maintenance of beach areas for public access, treatment of mixed use and commercial areas, and the preservation of the sense of community among others.

Ocean Beach is a regional resource valuable for its beaches and recreational facilities as well as its unique community character. Recreational areas such as Ocean Beach Park and Robb Field are heavily used active recreational areas which, while serving a great number of citizens and tourists, are still unable to meet all of the recreational needs of Ocean Beach and its surroundings.

Officially, the San Diego River is outside the Ocean Beach planning area, but the river does have a close relationship to the community. Residents use the trail along the jetty for active and passive recreation, and Dog Beach is a major attraction to both Ocean Beach residents and other dog enthusiasts throughout the area.

The Ocean Beach Precise Plan was first approved in 1975 with revisions in 1983 and 1986 and an amendment in 1991.

Mission Valley Community Plan

The Mission Valley Community Plan identifies the San Diego River floodway as well as the surrounding canyon and hillside landscapes as major assets in the creation of an open space system available to all San Diegans. The Mission Valley Plan seeks to take advantage of the opportunities presented by the unique physical environment of the valley in creating a 'quality regional urban center…while recognizing and respecting environmental constraints and traffic needs, and encouraging the valley's development as a community.'

While the plan recognizes the potential to establish a unique environment in the City of San Diego, it also notes several conditions which must be considered in future planning efforts. Foremost among these issues is flooding, a significant problem which has worsened with the increasing urbanization of the floodplain. Impacts of future development along the river must be carefully considered. While the river can provide development with a significant scenic amenity, development must in turn protect that resource by paying careful attention to the sensitive habitat and species of the river corridor.

The Mission Valley Community Plan was created by the City of San Diego Planning Department in 1984 and amended in 2003. An additional update is slated for release in 2005.

More information regarding this plan may be found at:
http://www.sannet.gov/planning/profiles/missionvalley/shtml

Tierrasanta Community Plan

The Tierrasanta plan generally describes a low density residential community. The presence of commercial areas are designated only where necessary to support the residential community, and the

Dog Beach


Mission Valley


Canyon in Tierrasanta

presence of industrial activity is limited to a small, isolated site. The plan seeks to capitalize on the open spaces of the canyonlands interspersed throughout the community as well as the expansive open space resource of the nearby Mission Trails Regional Park.

The San Diego River runs along the majority of the Tierrasanta Community Plan's southern planning boundary and is primarily considered in two ways: flood control and recreation. Existing sand and gravel extraction operations require regulation to avoid any negative impact on the San Diego River, its habitat or recreational activities.

The Tierrasanta Community Plan was approved in 1981 and amended in 1991.

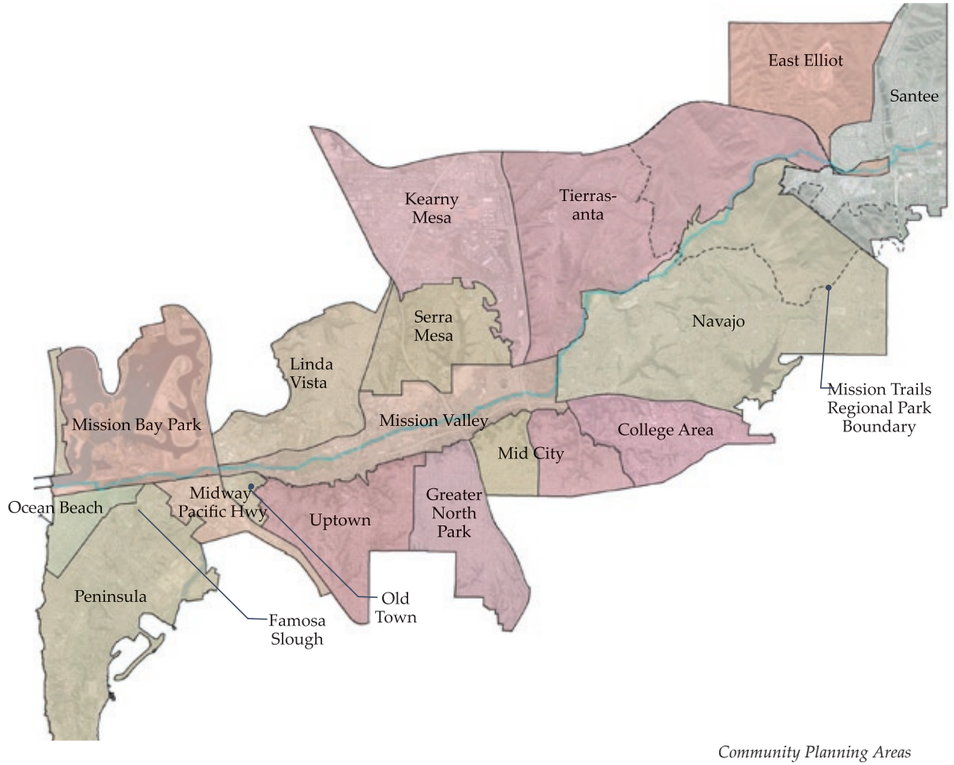
Navajo Community Plan

The primary goal of the Navajo community plan is to 'retain the residential character of the area' while providing basic services which enhance the day to day lives of its residents, such as police and fire protection and open space amenities. The plan recognizes the delicate balance between the community and the San Diego River. Much of the community's runoff finds its way to the river and the occasional flooding of the river impacts future land use planning in the floodplain.

The plan includes specific language for the design of structures within the 100-year floodplain, suggesting that such buildings keep their low-rise sections nearest the river with higher sections appearing in tiers further from the river. The plan also calls for a continuous trail along the San Diego River. This trail is described as being a minimum of 10 feet wide and placed within the minimum 20 foot setback. It is also designated that all structures within 150 feet of the 100-year floodway will provide at least one pedestrian access path from the main trail to the structure.

The Navajo community plan was approved in 1982, and amended in 1989 and 2002.

Adobe Falls in Navajo Community Area



Community Planning Areas

Mission Trails Regional Park Master Development Plan

Mission Trails Regional Park is an important partner in the San Diego River Park process that will link the river valley's existing and future parklands.

The Mission Trails Regional Park Master Development Plan defined four major elements of the Park's mission:
1) the Park has a multi-purpose role serving recreational, educational and cultural needs of the region;
2) the Park is made up of five unique areas (West Fortuna Mountain, East Fortuna Mountain, Mission Gorge, Cowles Mountain and Lake Murray);
3) the Park should have an outward, regional orientation rather than a closed, inward orientation; trail linkages are a key component of this outward focus;
4) the Park should respond to environmental issues and build upon unique site opportunities (river, vegetation, sense of enclosure) while also acknowledging site constraints.

The Mission Trails Regional Park Master Development Plan also identifies several planning and design goals that parallel the intent of the San Diego River Park Master Plan. These goals include trail linkages from Mission Bay Park to the Cleveland National Forest, and to an inter-regional park loop. Also aligning with San Diego River Park goals, the Master Development Plan stresses management and enhancement of native wildlife habitats, the need to cluster recreational uses in appropriate locations, and the Park's role in serving a diversity of needs.

The Master Development Plan identifies Mission Gorge in particular, offering opportunities for remote picnicking and exploring near rich riparian habitats, as "possibly the most valuable resource" of the Park. The plan suggests a need for more unpaved trails such as the Father Junipero Serro Trail in the Gorge, noting that this type of trail provides a more rustic experience in which to access the river and ridgeline views.

The Master Development Plan also recommends that wildlife habitats and water flow in the Gorge be monitored for health and development impacts. Native plant communities in the Gorge should be managed by removing invasive species and selectively replanting native tree species such as California sycamore, cottonwood, coast live oak to supplement the existing forest.

The Mission Trails Regional Park Master Plan was prepared in 1985.

First San Diego River Improvement Project (FSDRIP)

FSDRIP is the site for a 100 year flood control mitigation project, completed in 1988, for a 7000 foot long section of land between Qualcomm Way and Highway 163 in San Diego's Mission Valley. The Mission Valley area once existed as a broad, flat floodplain that was home to local native peoples. At the time of Spanish and western settlement, the river was ephemeral, supporting full flows only during winter months. River flows began to increase in the late 1950's as commercial, industrial, and housing developments began to dot the area. As urban runoff gradually increased the waterflow to become more year-round, the floodplain began to develop a more permanent riparian woodland containing many exotic plant species.

In the 1970's, due to winter flooding caused by these changes to the river, land owners in this area were unable to develop their properties, causing the idea for the FSDRIP to develop. After approval of FSDRIP, the property owners entered into a development agreement with the City of San Diego that assured them that development of their property could proceed. In exchange, the property owners agreed to fund the necessary flood control improvements.

Under the Federal Clean Water Act, the U.S. Army Corp of Engineers replanted and preserved 26.8 acres of riparian woodland, 9.7 acres of freshwater marsh, and 8.7 acres of open water within the FSDRIP boundary that had been impacted during flood control improvements. The FSDRIP Natural Resources Management Plan (NRMP) addresses four areas of use within the FSDRIP boundary: natural habitat, flood control, utility corridor, and public uses. The purpose of the NRMP was to establish 100 year goals to provide guidance for the protection of natural resources, maintenance of original permit goals, and remedial measures to re-vegetate disturbed natural habitats. The plan also delineates acceptable public and recreational uses within the area. The NRMP objectives included:

- Establishment of management practices to preserve and protect biological resources.
- Providing public uses that will not negatively impact the biological resources of the area
- Maintaining flood control capacity per the City of San Diego standards.
- Emphasizing improvements for environmental protection and non disruptive recreational uses.
- Ensuring the improvements and maintenance consider public safety.
- Controlling erosion along the San Diego River and its banks.
- Discourage illegal activities
- Develop a reporting and enforcement procedure to prevent encroachment from adjacent developments.

FSDRIP was approved in 1987 and was completed in 1988. In 1995 the California Department of Fish and Game and the U.S. Army Corp of Engineers agreed that vegetation efforts had progressed well and FSDRIP could be considered successful.

Mission Bay Park Master Plan Update

Once part of the estuarine delta of the San Diego River, Mission Bay (initially called False Bay) was a vast tidal marsh coursed by the braided river until the 1852 construction of the Derby Dike on the south side of the river channel preventing flow into San Diego Bay. In the 1940's dredging was begun to turn Mission Bay into an aquatic park and tourist attraction to diversify the City's economy. Today the San Diego River estuary lies within the boundary of Mission Bay Park and serves an important role in the provision of wildlife habitat within the Park. The fundamental goal of the Mission Bay Master Plan update is to identify new demands on the park in response to the regional population growth and evolving recreational activities. The Plan acknowledges the many demands and activities within its bounds with a notion of "parks within a park", identifying regional recreation, commercial recreation, neighborhood recreation and habitat recreation as the key components and purpose of the Park. The Plan addresses this minimally, identifying it as habitat-oriented recreation area adjacent to a "rustic" perimeter of coastal vegetation as an edge along the river dike. A proposed increase, is made in the plan, in regional park land on Fiesta Island and South Shores, and an increase in natural recreation/habitat areas on the north half of Fiesta Island and an increase in wetland area at the outfall of Rose Creek. The current plan indicates that the land use between the river and the Bay east of Seaworld is to be park land, coastal landscape, and overflow parking.

The Mission Bay Master Plan was updated in 1994.

Famosa Slough Enhancement Plan

The intent of the Famosa Slough Enhancement Plan is to establish a concept plan to restore and preserve the Slough as natural habitat and wildlife sanctuary. The Plan also aims to educate the public in the appreciation of a wetland system.

Originally part of the San Diego River/False Bay (Mission Bay) estuary, the tidal influence on Famosa Slough has been restricted by flood control structures. This change in the waterway's function has resulted in salinity levels and inundation frequencies that have varied over the years. Urban runoff has also impacted the Slough, creating several habitats, including some that are non-native and invasive.

The Enhancement Plan recommended a series of actions primarily intended to improve the biology and hydrology of the Slough, as well as provide an opportunity for education and limited human access. Today I-8 remains a barrier between Famosa Slough and the San Diego River, cutting off hydrologic, biologic and pedestrian connection between the two. The original flood gates have been replaced and remain open most of the time. The Friends of Famosa Slough operate the gates monthly to ensure proper operation and are responsible for closing them in the event of a flood. Implementation of the Enhancement Plan is not complete, but has been successful thus far.

The Famosa Slough Enhancement Plan was completed in 1992.

Principles

Principles

A successful planning process demands the communication of intent, not just recommended actions, as a guide to decision makers and implementation. A unified vision is essential to current and future planning efforts, in order to ensure that the plan can respond to and accommodate changing conditions.

The following seven principles emerged from discussions with the Citizen's Advisory Committee, and were tested in public workshops and meetings. These principles are the guiding ideas that express the essential elements of the San Diego River Park, describing the intent and role of the Park in the city and in the region. While recommendations may change as conditions change in the future, the principles do not, and are the guide against which all future decisions are tested. These principles are:

Principle One: Reclaim the valley as a Common.
Principle Two: Reorient development toward the river.
Principle Three: Improve hydrologic function.
Principle Four: Unify fragmented lands.
Principle Five: Emphasize a continuum of experience.
Principle Six: Reveal the valley history.
Principle Seven: Balance people, water and wildlife.

The gorge in Mission Trails Regional Park

The river cutting through urban development in Lower Mission Valley

San Diego River Estuary

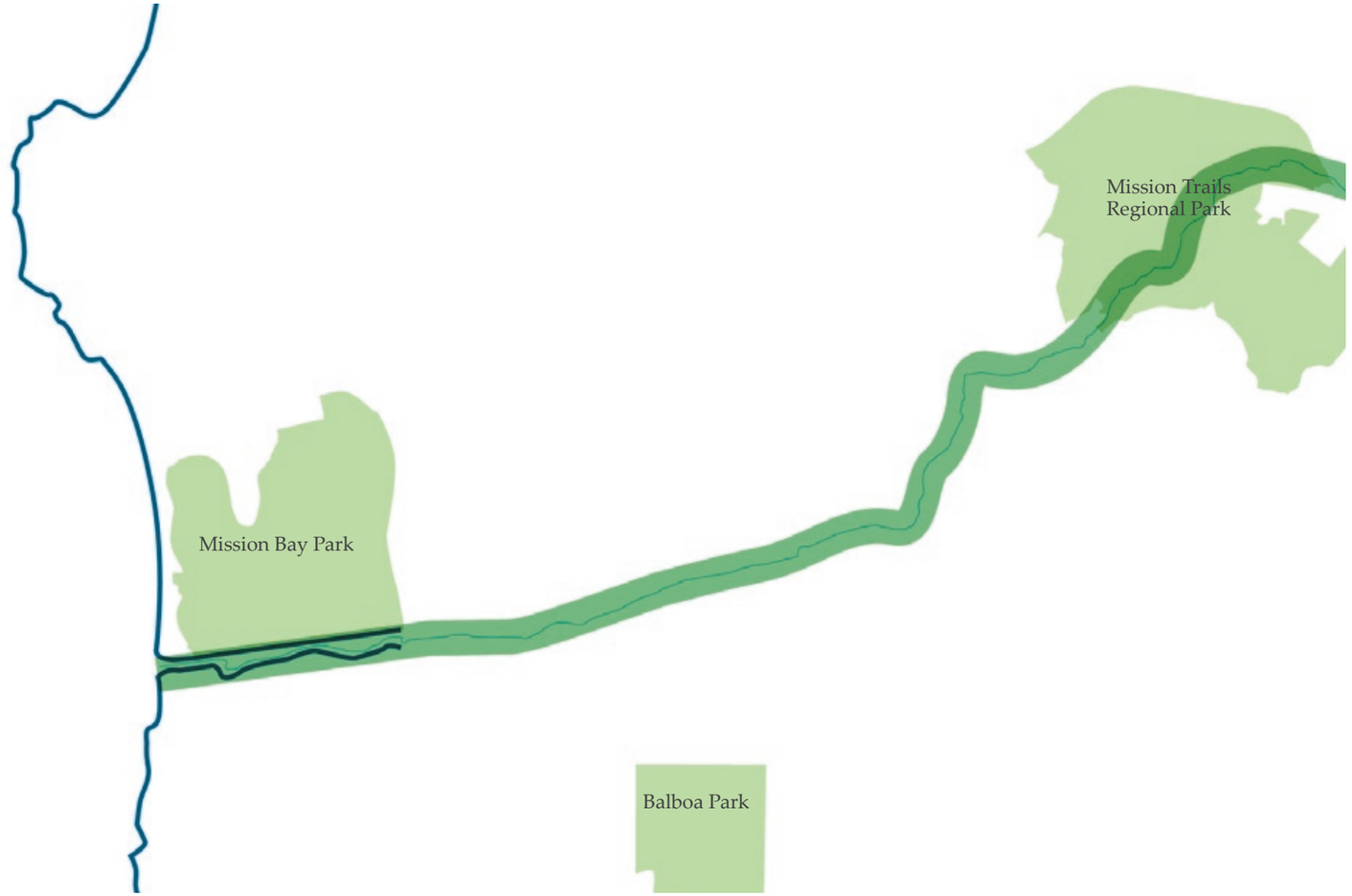
Principle One: Reclaim the valley as a Common.

As recently as the 1950's the San Diego River valley provided green relief from the urban environment surrounding it. As the valley land uses changed from agriculture to shopping malls and offices, this sense of shared open space was lost. Creating the San Diego River Park offers the potential to again have the river corridor be a place that all residents of the city can come to enjoy the experience of nature. By aggregating as much of the remaining open land within the valley, reclaiming a distinct and identifiable river corridor, and restoring the river's riparian integrity, the sense of the valley as a place for people and for wildlife can be re-established.

The valley as a *place* must be identifiable. The river corridor should present a consistent character that sets it apart from its urban surroundings and that speaks to visitors of a separate place, a vast and complex system that invites exploration but defies definition. Consistent character does not mean homogeneous character; it means a landscape that knits together harmoniously and authentically. The river corridor should be a spectrum that reflects river ecology and function; the river's face as it joins the Pacific is not the same as its face where it originates in the mountains.

Key to establishing a river identity is defining an appropriate corridor. A river that is channelized, squeezed between development, or otherwise marginalized does not have sufficient space for the variety of vegetation and wildlife that creates a real landscape. The river corridor must be wide enough for natural landscape expression.

The valley as a Common must be *accessible* and *continuous.* The river corridor should have multiple points of access. It should accommodate a wide variety of users, from walkers to runners to bikers. The river corridor must also offer continuity, both visually and functionally. Visually, landscapes transitions should be natural and logical, not abrupt juxtapositions of conflicting uses. Even highway and utility rights-of-way can be aggregated and vegetated to contribute "borrowed space" to the river corridor. Functionally, users should be able to experience the entire length of the river, unbroken by trail and facility disconnects.

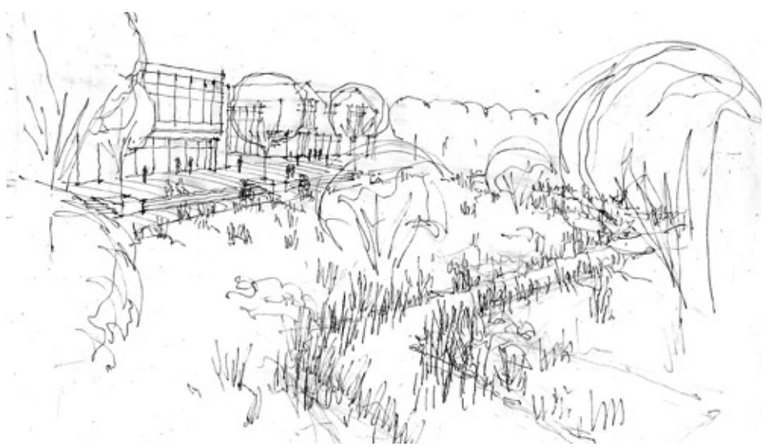


Principle Two: Reorient development toward the river.

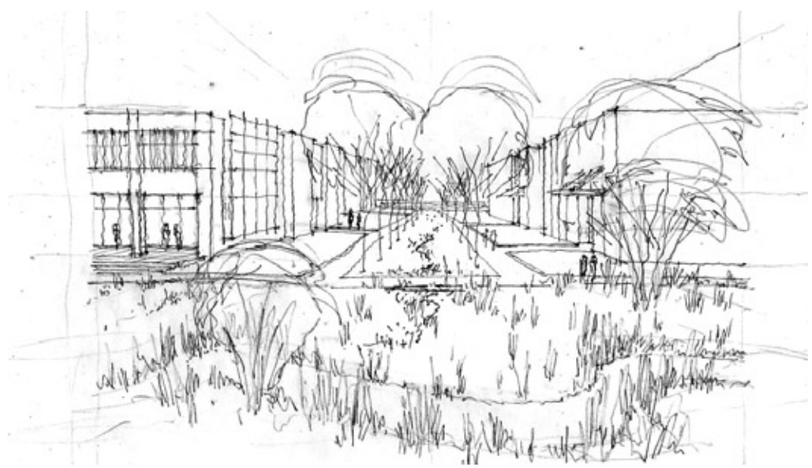
Today nearly all development within the valley turns its back to the river. Parking lots, dumpsters, roads, storage yards and mining border the river between River Run Golf Course and Mission Trails Regional Park.

The river should be a 'front door', an amenity to celebrate. Existing development should seek ways to draw the river character into current uses. New development should face the river, taking design cues from the forms and materials lining the river, scaling and orienting new buildings to complement, not compete with, the river corridor.

Accenting the river is not limited to river*front* development. Development further inland should seek opportunities to connect with the river. These links may be achieved through elements such as sight lines, design vocabulary, or even physical connection.



An urban facade fronting the river



The riparian woodland of the river can reach into the city linking people with nature and creating access

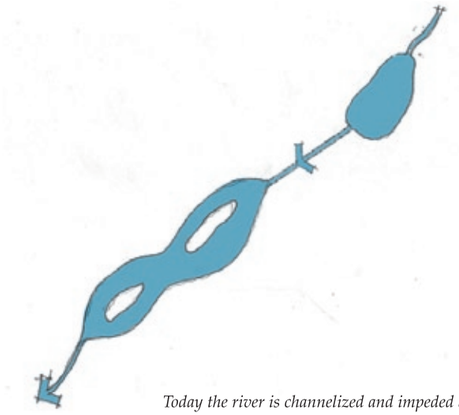
Principle Three: Improve hydrologic function.

Human activity has dramatically altered the river's natural hydrologic regime. Originally an ephemeral watercourse, river activity ranged from seasonal high flow events in the early spring to nonexistent surface flow in the dry season. Flow varied from season to season and year to year, sometimes inundating the entire valley under floodwaters. The river now flows perennially, most notably augmented by urban runoff. Beyond changing the natural fluctuation of river flows, urban runoff can also bring a large number of pollutants that range from mildly to highly toxic.

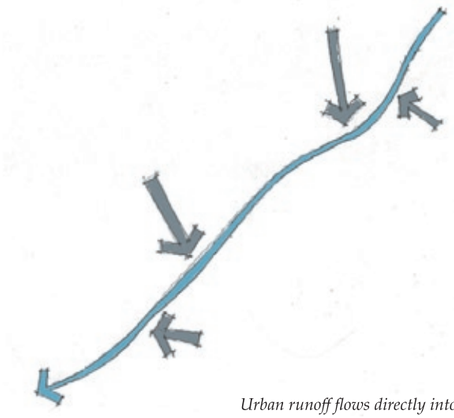
Damming has further altered the river's functioning; the El Capitan and San Vicente dams have essentially broken the river into multiple watersheds and isolated the upper watershed from the lower river valley. Water contained within these reservoirs serves the City of San Diego and is highly unlikely to become available for river flows; water from precipitation sources is critical to diluting urban runoff.

Ponding and channelization present two opposing impacts on the river. Substantially-sized ponds, a result of adjacent mining activities, interrupt the river channel. These ponds decrease flow velocity and impede sediment transport, the river's self-flushing mechanism. Channelization of the river has favored a straightened river alignment; the removal of meander decreases the actual length of the river. This shortening has two deleterious effects; reduced channel length concentrates more water in less space, resulting increased flow velocity and erosion, and reduced filtration and ground water recharge. Reduced meander also reduces the river's contact with riparian vegetation, to the detriment of that habitat.

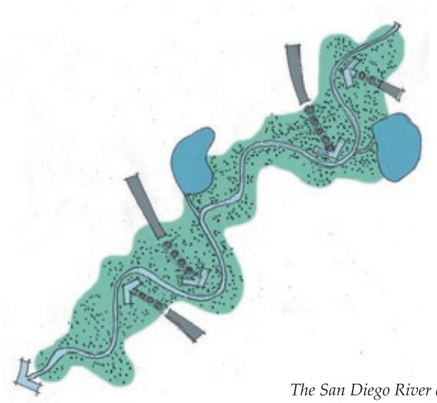
While the river cannot return to a truly natural flow state, a properly managed condition can restore a large degree of the river's hydrologic function. The San Diego River Park effort will recognize the existing hydrologic condition as the baseline. Management should focus on controlling the pattern of flow, improving water quality, improving sediment transport and increasing groundwater recharge.



Today the river is channelized and impeded by ponds



Urban runoff flows directly into the river



The San Diego River of the future

Existing pond along river

Existing outfall along river

Free flowing stream above Old Mission Dam

Existing fragmented condition

Link canyons with the river valley

Principle Four: Unify fragmented lands.

Significant open space brackets the river, in Mission Bay Park to the west and in Mission Trails Regional Park to the east. The lands between this two points, however, are a patchwork of developed and undeveloped areas held in both public and private ownership. These lands are critical to preserving and expanding the continuity of natural landscape. Knitting the river corridor together through landscape and use expands the sense of the river valley as a whole.

Of key importance are those lands at the fringes of development and infrastructure, highway rights-of-way and infrastructure easements. By planting these areas in natives plant species, by making the infrastructure itself part of the beauty of the valley, the overall extent of habitat, connection and visual character can be significantly expanded.

Significant undeveloped land also remains in canyons extending north and south from the valley; portions of the valley walls are also undeveloped. By linking these lands at every opportunity, open space can be aggregated on a scale that is appropriate to the urban environment surrounding the valley. These links can also create visual and physical benefit for people. Connecting disparate trail segments can lead to a greater city wide trail system offering a variety of experience and landscape. Linking these open lands also allows for wildlife movement and population increase through greater habitat area.

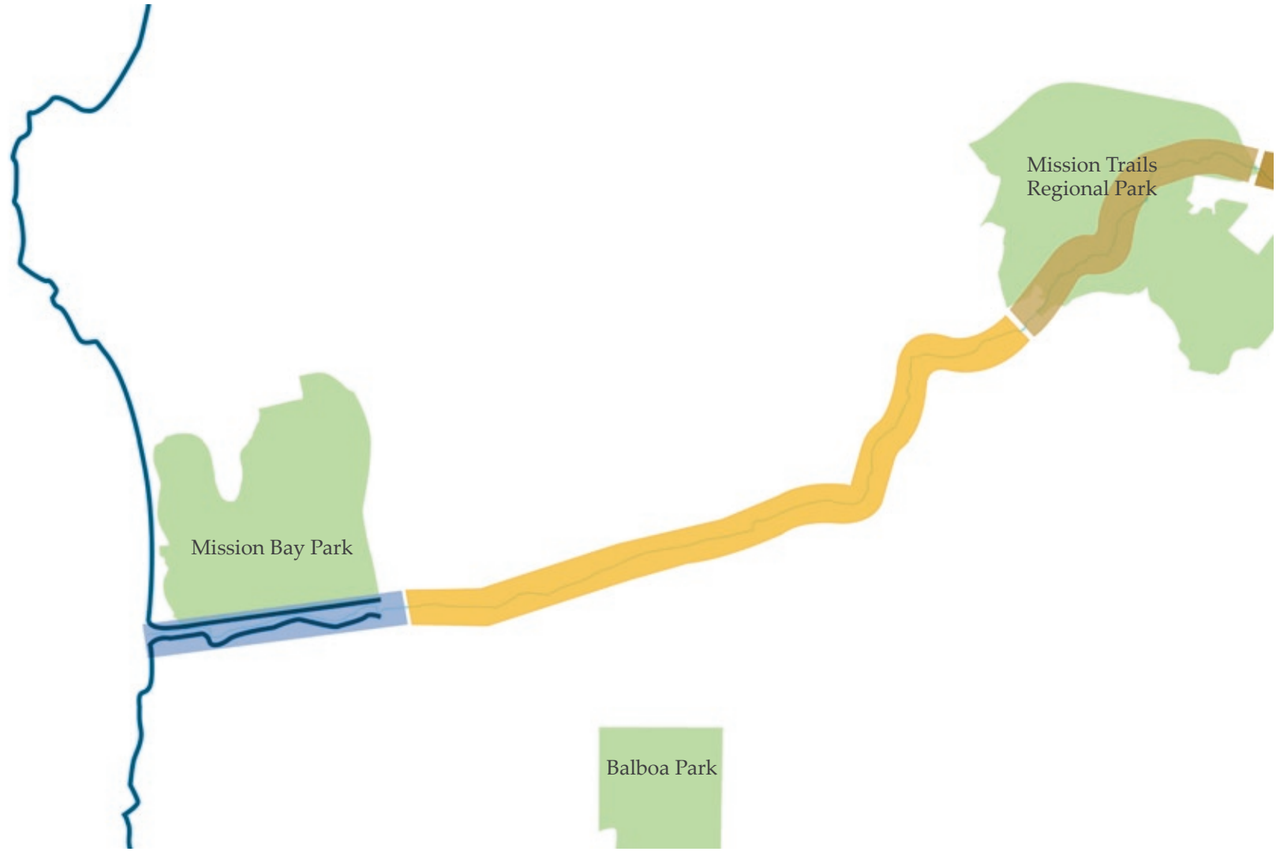
Ruffin Canyon: Like most canyons, no longer reached the river valley

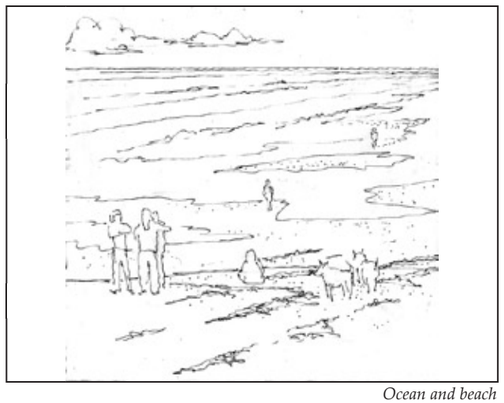
Principle Five: Emphasize a continuum of experience.

The experience of the landscape is diverse and changes throughout the valley. A visitor senses height at the coastal terrace, walled shelter moving into the throat of the valley, expansive opening in the broad Mission Valley stretch, soaring walls in the gorge and again open expanse at the plateau above Mission Trails Regional Park.

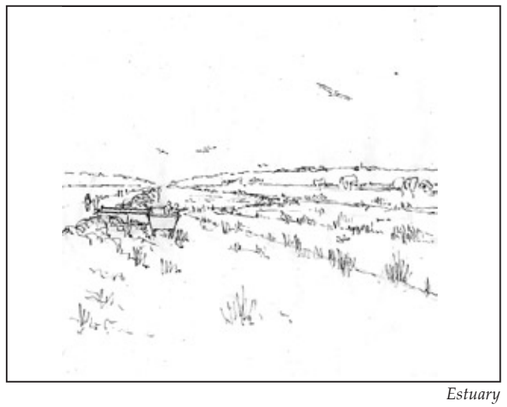
Continuity is essential to this meshing kaleidoscope of experience. As indicated in the preceding principle, undeveloped land within the valley is limited. Land acquisition and open space easements are two ways to rejoin the valley and allow unbroken passage along the river's length.

The river's character extends not just east-west along it's course, but also radiates north and south into adjacent communities. Visual continuity couples with physical continuity as an integral piece of the experiential continuum. The San Diego River Park should seek opportunities to enhance both kinds of continuity.

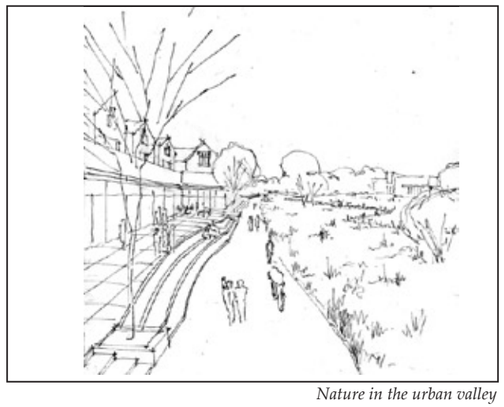




Ocean and beach

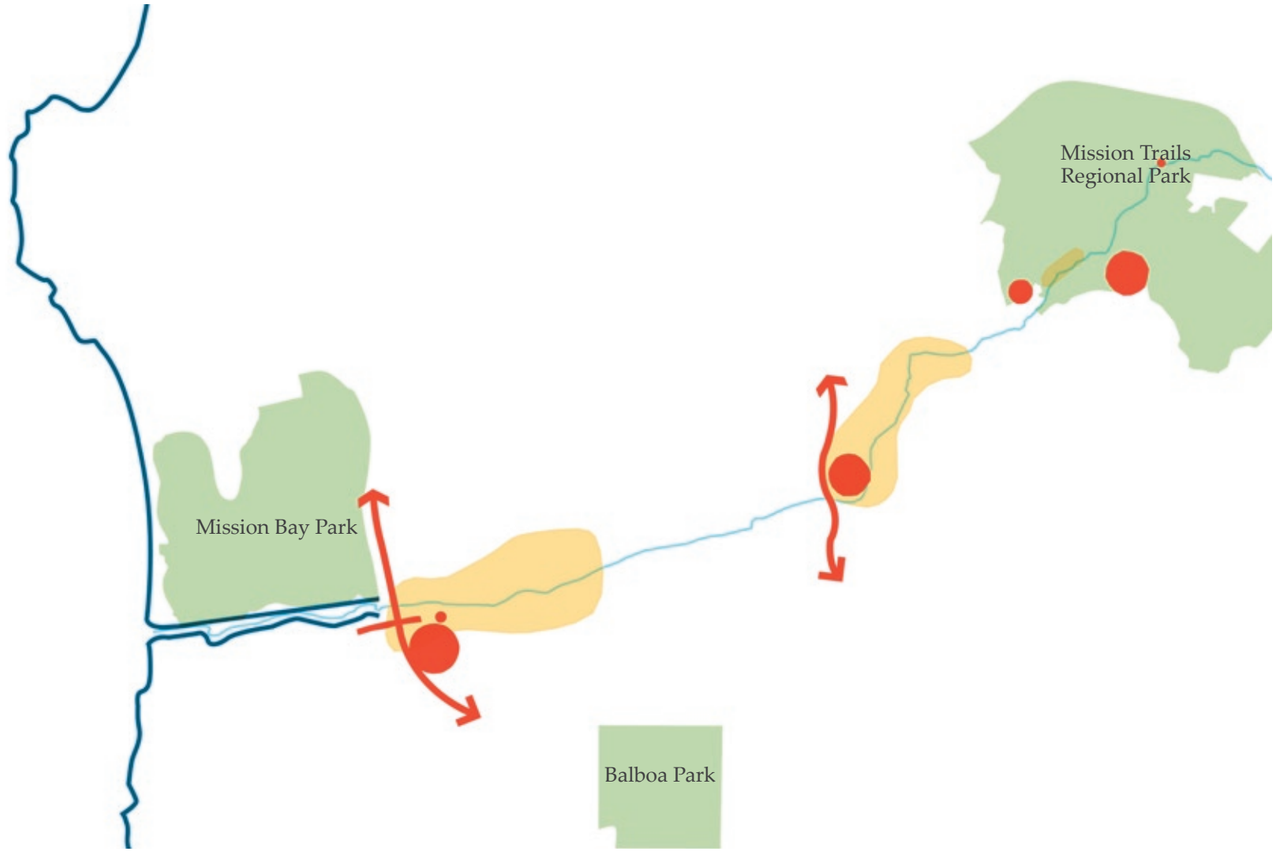


Estuary



Nature in the urban valley

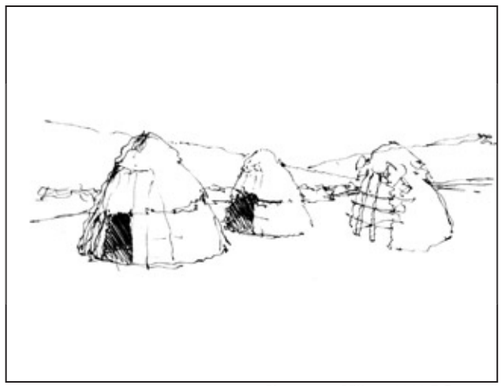
Highlands and the gorge



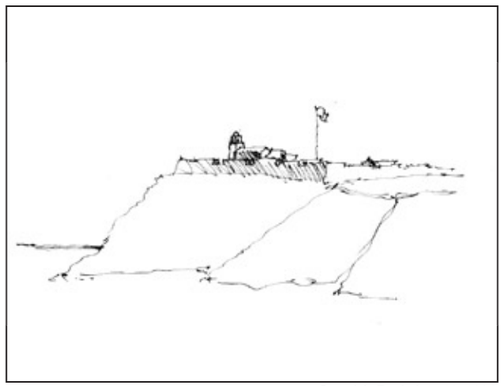
Principle Six: Reveal the valley history.

The valley has long been central to the settlement of the San Diego region. The presence of water was the impetus for the earliest native peoples to move into the area. Although much of the evidence of this history has been lost, a number of artifacts and sites remain, particularly in Mission Trails Regional Park. Presidio, Old Town and Mission San Diego de Alcalá are sites with particularly strong, but less recognized, histories.

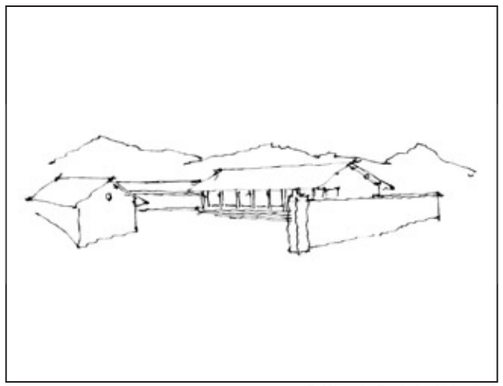
The San Diego River Park Trail is an opportunity to link these locations, stimulate public interest in the Valley's history, and expand the public's knowledge about the prehistoric and historic land uses within the valley. Increased public interest and knowledge benefits these sites by instilling a sense of responsibility for their preservation and care. Increased visitor traffic, however, can also have its negative effects, and careful evaluation of a site's ability to support visitor traffic is critical prior to opening a site. Some sites may be too sensitive to support visitor traffic, and should remain closed to the public.



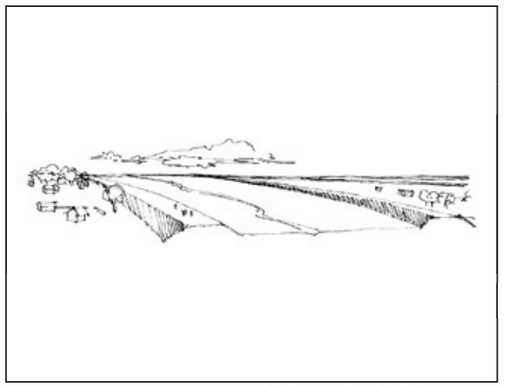
Kumeyaay Village 8000 BC - 1760



Spanish Period 1760-1820



California Period 1820-1848

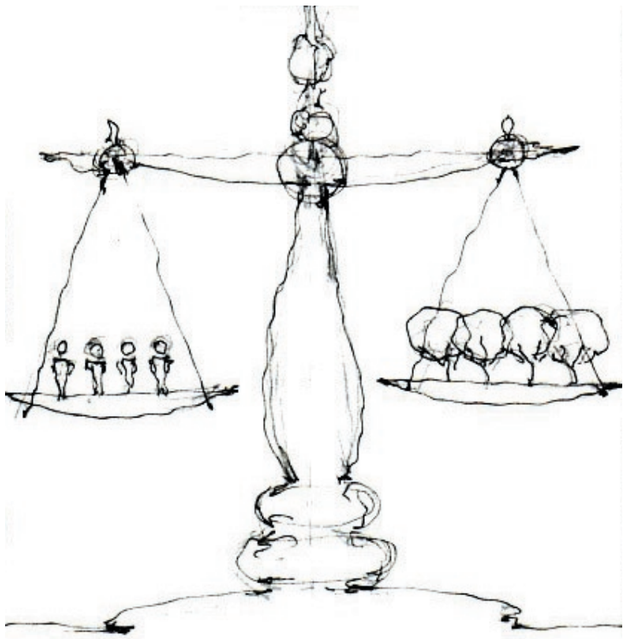


Early American Period 1848-1945

Principle Seven: Balance people, water and wildlife.

The key to the success of the San Diego River Park is to find a balance that best serves all the valley and its many inhabitants, including people, animals and plants. Each of these interests have a place within the multi-faceted system that is the river valley, and the San Diego River Park must accommodate and welcome all of them.

There are places where development is appropriate and places where existing undeveloped land may best serve the broader community as open space. There are places that are essential to establishing habitat continuity, and there are places that are essential to linking trails and recreation. Such delineations must be made fairly and equitably. The successful San Diego River Park will resolve these diverse concerns.



Achieving a balance

The unique and cherished Dog Beach

Free flowing stream above the gorge

Rich wildlife of the Southern Wildlife Reserve

Recommendations

Key Recommendations:

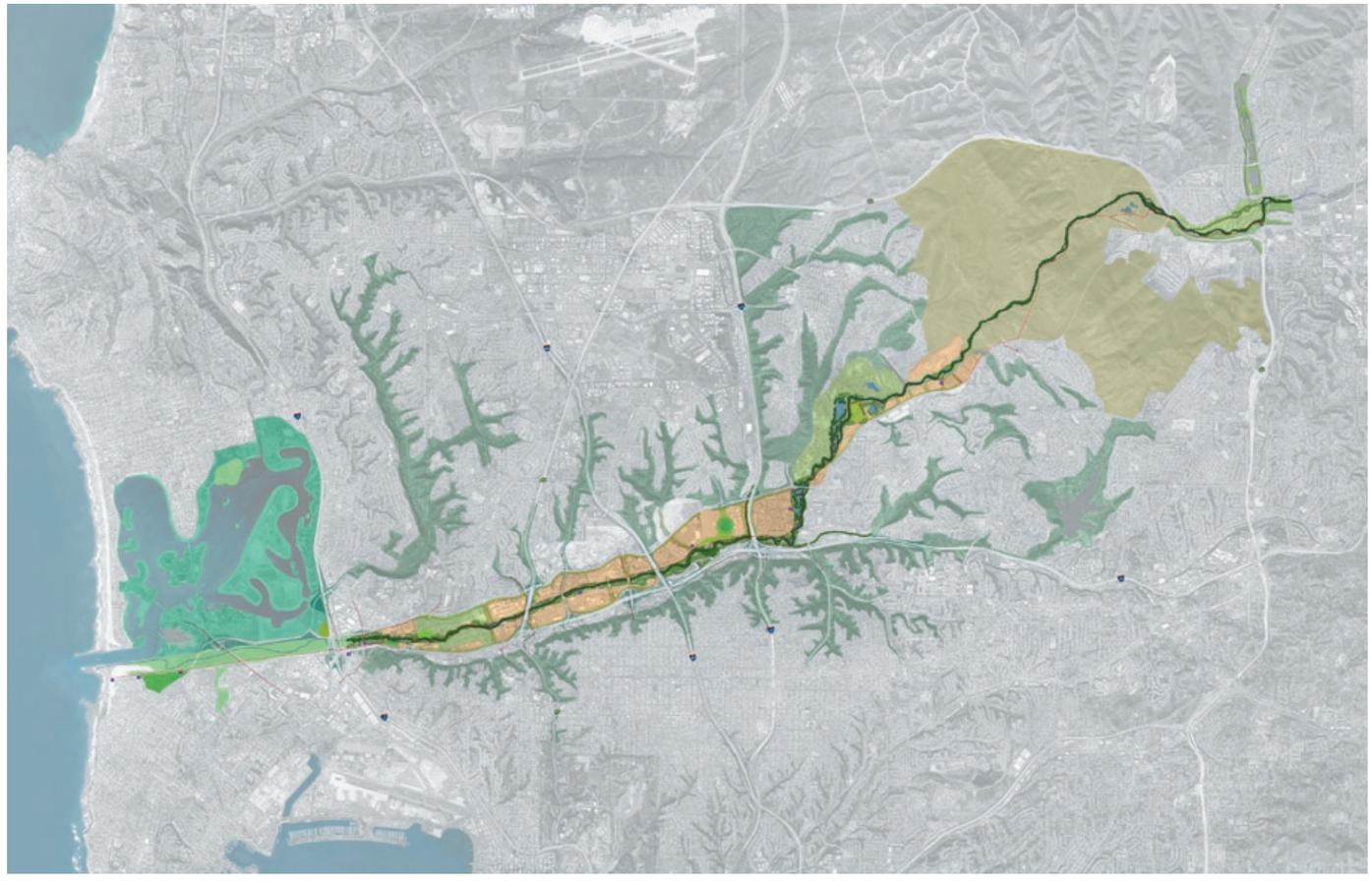
Return the river to health.
Improve the river pattern and water quality by separating stream flow from ponds and creating a wider riparian corridor with more meander. Remove exotic vegetation and plant native species. Create links to canyon and uplands. Remove exotic vegetation and plant native species.

Remember the big picture.
Connect the valley to adjacent open space including the beaches, Tecolote Canyon, Murray, Ruffin, Murphy and Alvarado Canyons and Lake Murray to create an ecostructure of a unified native landscape by transforming rights-of-way and creating open space easements.

Build city wide connection.
Establish a continuous trail system from ocean to mountain and canyon to canyon with frequent access to transit, canyons and neighborhoods. Coordinate with San Diego Bicycle Master Plan and develop specific study to confirm route alignment.

Assemble a beautiful infrastructure.
Preserve a broad corridor for habitat and wildlife through acquisition of land, open space easements, and partnering with managers of infrastructure to transform roads, bridges, trolley, parking lots, culverts, channels and utility easements to be part of a unified native landscape.

Create a sequence of unique places and experiences.
Establish a linked string of parks and open spaces through acquisition of land and partnerships with land owners in key locations. Collaborate with and support Mission Valley Community Plan to identify areas for land acquisition for miniparks, neighborhood parks, and community parks as well as for open space on valley walls. As redevelopment occurs, engage land owners in process to orient new development to the river, with the potential for an urban river plaza.



General Recommendations

The principles described in the preceding section define the essential goals and guiding ideas for the vision of the San Diego River Park. The following Recommendations describe the specific strategies for achieving the intent of the principles. five key recommendations that apply to all reaches of the river and extend beyond the valley itself. The remainder of the section is organized by general recommendations relating to four elements of the San Diego River Park: Hydrology and Water Quality, Habitat and Wildlife, Recreation and Cultural Interpretation, and Public Art. The general recommendations are followed by Specific Recommendations for each reach.

Key Recommendations

The San Diego River Park is many parks and a single park. While the general and reach-specific recommendations address measures to improve elements of the river corridor, create new parks, and expand recreational and habitat resources, it is the five key recommendations below that will link the entire river corridor into a cohesive system.

The vision of the San Diego River Park crosses boundaries of land ownership, special interests, disciplines and jurisdictions; the ultimate whole is greater than its parts. Creating the San Diego River Park will require a multi-disciplinary approach and the collaboration and cooperation of diverse group of public and private entities to implement the many discrete but interrelated elements. The focused intent of the general recommendations for the hydrology, habitat and wildlife, recreation and culture and public art each have a set of related benefits that reach beyond the boundaries of the discipline.

The urban structure of the City itself creates the framework by which these elements reach beyond their focus and consider the valley as a whole. Every action taken toward creating the San Diego River Park, from large scale to small must consider it's role as a part of the whole, to reinforce the perception of the river, valley and canyons as a complete natural and urban system.

Many of the ideas expressed in the Principles and Recommendations in this plan were also first discussed thirty years ago in Kevin Lynch's Temporary Paradise and further developed in the San Diego River Concept Plan. In addition the City's City of Villages Plan incorporates the idea of using the open space and the transit corridor of the river to link and define the communities along the river. The San Diego River Park will create an interesting sequence of places with unique characteristics that stem from the natural conditions of each reach and community. The river should extend visually and physically into the valley walls and adjacent communities with habitat and landscape that is visible to people passing over and through the valley.

Nature, River and City meet in Denver, Colorado

Exploring the Platte River's edge in Denver, Colorado

General Recommendations: Hydrology and Water Quality

Intent

The San Diego River Park seeks to return the San Diego River to a cleaner, healthier condition that showcases a natural California river within the City's urban setting. A healthy river has very specific benchmarks: it will be free flowing from Old Mission Dam to the ocean, meandering and braided. It will be bordered with native riparian vegetation that provides habitat for wildlife and filters urban runoff before it reaches the river. A healthy river does not, however, mean returning the river to its pre-impoundment flow, unpredictable and ephemeral; such an approach is neither achievable or desirable. While the current year-round flow has been a factor in supporting extensive invasion by exotic species, it will ensure a reliable water supply to maintain diverse and healthy riparian plant communities once exotics are removed.

Human activity has pushed and squeezed the river for decades, resulting in channelization and ponds, both from mining and for flood control. The San Diego River Park should separate river flow from ponds and broaden the river channel to allow the necessary width for meander and braiding. This redesigned river channel will result in a longer river and expanded floodplain; these improvements will in turn expand riparian habitat and improve water quality through the increased duration of water contact with vegetation.

The San Diego River Park will create a healthier river, one that flows with cleaner water and invites people to see, visit smell and listen to it. A healthy San Diego River will become the symbol and embodiment of the river valley's natural character.

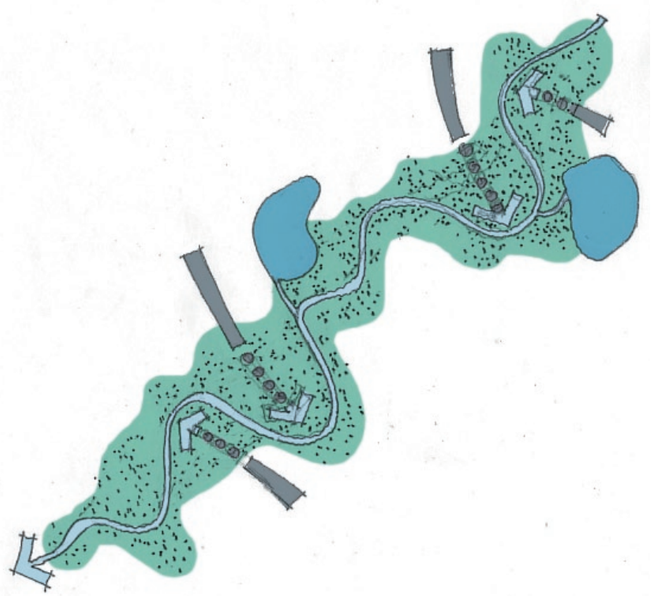
Recommendations

- Augment flows to the river.
- Remove/circumvent obstacles that impede flow.
- Remove invasive vegetation species.
- Encourage the growth of appropriate riparian vegetation.
- Re-contour the channel to encourage meander and braiding.
- Expand the floodplain.
- Adopt programs to reduce/remove non-point source loads of pollutants.

Augment flows to the river.

Although the pre-disturbed condition of the river was one of ephemeral flows (dry during certain times of the year), the persistent condition is now perennial flows (at least some flow all year long). It is unlikely that flow in the river will be augmented by natural or non-accidental means. Rather, the extreme demand for water supplies and increasing attention to water efficiency make it more likely that flow in the river will continue to diminish during the dry season. The result of reverting to an ephemeral or semi-ephemeral system, whether through conservation or conscious design, would be a more barren riparian corridor supporting less biodiversity than present conditions.

The existing perennial flow supports a relatively abundant riparian biological community, for this reason, the flow should be maintained. The river's perennial flow is most likely the result of return flow from urban and suburban activities such as irrigation. The flow is also augmented by some contribution from groundwater sources. The relative contribution from each of these sources is not well understood at this time and will require further investigation. Means to augment the flow should also be investigated; reclaimed wastewater might be a possible source for augmentation, as would water purchased for release. Regardless of source, the water should closely mimic existing river conditions in measures such as temperature and salinity.



A braided meandering river supporting a broad riparian environment that filters urban runoff

Remove/circumvent obstacles that impede flow.

Numerous impediments exist in the channel and in most of the streams and creeks that are tributary to the channel. These disconnects include ponds, lakes, culverts, roads, and dams. These elements segment habitat, disrupt water flow and create barriers for species movement. In some cases, river water collects into unmoving pools, resulting in stagnant water that promotes increased temperature and increased algae/macrophyte growth, both serious issues for riparian systems. The still water also promotes a deposition of sediments resulting in downstream deprivation of sediment load. Continuing planning efforts should encourage the removal and/or circumvention of impediments to improve flow characteristics and rejoin habitat fragments.

Historic mining has resulted in numerous ponds

Remove invasive vegetation species.

As it relates to hydrology and water quality, the presence of dense, invasive vegetation results in an impediment to flow. Invasive species also result in dramatically increased evapotranspiration of water that would otherwise remain in the channel or be used by more productive species. In an effort to reduce flow impediments and better utilize the limited water quantity in the channel, efforts should be made to eradicate invasive species of plants throughout the watershed.

Encourage the growth of appropriate riparian vegetation.

Appropriate riparian vegetation has direct benefits to hydrology and water quality. As indicated in the preceding recommendation, inappropriate vegetation impedes flow and squanders water. Exotic species should be removed, and the areas replanted with native species. Best management practices should be implemented to encourage the propagation of existing native species.

Less-dense, native vegetation will cause significantly fewer circulation problems and require less water than invasive species. Additionally, a variety of a native species may be used to more effectively "cleanse" urban runoff through nutrient uptake.

Arrundo donax has invaded many sections of the river

Re-contour the channel to encourage meander and braiding.

Over the past decades, the river has become increasingly "channelized" by projects that seek to transport water from higher to lower elevations in the most efficient manner. Most efficient has often mean in the least amount of space, a goal that seeks to maximize land available for development. The net result of these projects is a relatively straight channel with artificially raised banks. This condition has removed the river's natural meander and braiding, and deprived it of its natural flood cycle.. The term meander refers to a river's naturally winding path; braiding references a river that has carved multiple simultaneous channels, diverging and rejoining itself. Both of these river patterns (contrasted to a straightened, channelized path) contribute to greater riparian habitat, greater groundwater recharge and reduced velocity. Without this meander and braiding, the river's current channel is shorter overall, and with the same amount of water concentrated in less space, flow velocities are relatively higher than before channelization.

Although it is impractical to consider returning the floodplain to the river in any substantial form, it is possible to increase river length and decrease flow velocities. Where possible, the low flow portion of the channel should be reshaped to include meanders. By increasing the river length, there is an inherent increase in the riparian corridor and available habitat. The longer reaches also result in decreased flow velocities.

Expand the floodplain.

Companion to the preceding recommendation, another means of increasing the river length via meander is by removing artificial levees that constrain the river. A number of such floodplain expansion programs have been successfully executed throughout the country on similar rivers; these programs must pay careful attention to the potential risks associating with flooding, but have proved to manage the risks well.

Adopt programs to reduce/remove non-point source loads

During wet weather events, the first flush of contaminants from most urban and suburban surfaces is transported directly into the river via storm drain systems. The low flow in these systems trickle contaminants into the river. Although the City has a relatively advanced program to identify pollutants and to educate citizens in this area, a significant quantity of pollutants continue to enter the river via storm drains. The City should consider higher standards on new development and redevelopment as it relates to non-point source runoff. Some examples include requiring compliance with numeric standards, mandatory structural practices (swales, infiltration basins), and mandatory non-structural practices (restricted irrigation, aggressive street cleaning). Localized approaches to non-point source pollutant reduction/elimination is the only alternative to massive, in-channel treatments.

Channelization of Tecolote Creek

General Recommendations: Habitat and Wildlife

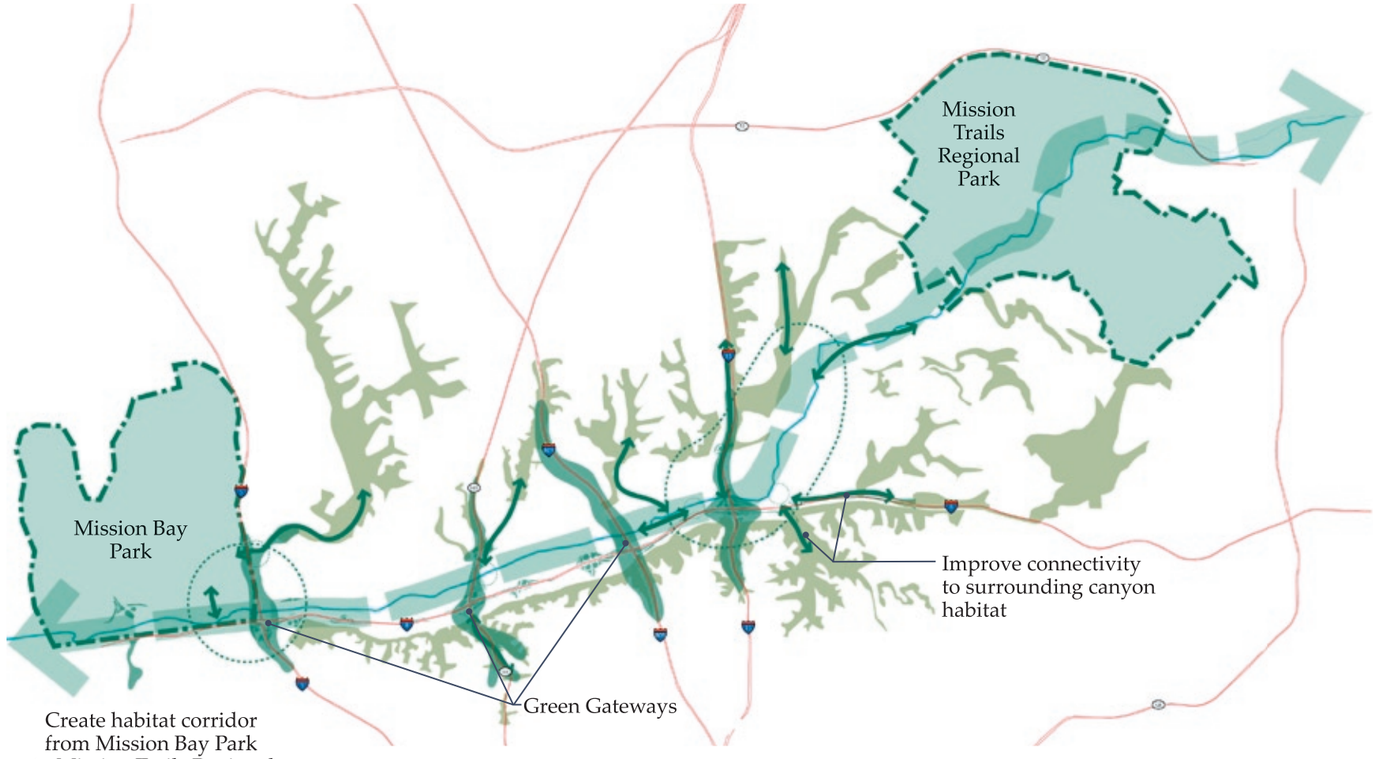
Intent

The San Diego River Park seeks to integrate infrastructure and ecostructure. Infrastructure describes such services as transportation, utilities, and stormwater, while the term ecostructure encompasses rivers, vegetation, wildlife corridors and habitat.

To be included in this ecostructure designation, lands must meet two or more of the following conditions: located within the San Diego River watershed, part of the river corridor/floodplain (as identified in the reach sections of this document), functioning natural habitat, designated park or open space. Generally, areas that meet more than one of these conditions are undevelopable because they flood regularly, present steep side slopes and canyons, or are areas designated for recreation or conservation. As the last remnants of native habitat, these areas were identified as biologically significant and incorporated into the San Diego MSCP Subarea Plan.

Reduction or loss of habitat and associated fragmentation are two of the biggest factors in the viability of habitat to continue to support wildlife, particularly in regards to the riparian, coastal sage scrub, and chaparral plant communities that comprise the majority of natural habitat in the study area. In urban areas, the existing habitat is limited to the immediate riparian corridor of the river, or fragmented and isolated upland habitat. Opportunities to increase habitat are limited, focusing San Diego River Park efforts on creating or improving habitat in places where it also improves connectivity between existing habitat areas.

The San Diego River Park seeks enhanced connectivity on three primary levels. Linear connectivity along the river corridor allows animals, energy and nutrients to move more freely and extensively throughout the landscape system. Lateral connectivity between the river corridor and adjacent upland habitat areas is also important, reducing habitat fragmentation and allowing a natural progression of habitat types. Finally, connectivity between the river and its tributaries is vital to the health of the river, measured in water quality, and of the surrounding habitat.



Recommendations

- Establish minimum corridor widths.
- Acquire open lands and pursue open space easements.
- Eliminate invasive plant species and reintroduce native species.
- Encourage multi-use redevelopment.
- Reclaim frontage roads as pedestrian and bicycle-only green buffers.
- Naturalize floodplain areas.
- Daylight the river's tributaries.
- Use biological systems to treat all stormwater before it enters the river.
- Separate pedestrian/wildlife and vehicular river crossings.
- Establish 'Green Gateways.'
- Establish habitat corridors as secondary gateways at side canyons and tributaries.
- Convert smaller, adjacent streets to 'Green Streets.'

Establish minimum corridor widths.

Water bodies and wildlife need 'breathing room' to maintain health and integrity. Minimum corridor widths function as water quality buffers and as valuable habitat areas. Corridor widths must be determined based on available land, and specific wildlife populations along each section of the river.

An important element of establishing corridors is encouraging development and redevelopment to take place further from the river's edge. This concept aligns with Army Corps of Engineers (ACOE) recommendations for floodplain management. Specific corridor widths are outlined in the Design Guidelines section of this document.

Acquire open lands and pursue open space easements.

Acquire existing open space parcels or open space easements on private property to expand, unify, and connect the river corridor.

Eliminate invasive plant species and reintroduce native species.

Non-native plant species disrupt the balance and function of natural ecosystems, often choking out native species. The San Diego River Park planning process should develop and implement a vegetation management plan to remove exotic species and plant native species. This replanting plan will improve habitat quality and conditions. Special concern needs to be given to the timing of this work in order to minimize impacts to existing habitat, species, and wildlife use.

Encourage multi-use redevelopment.

Development that can accommodate multiple uses reduces the amount of land locked in development, and frees more land for open space uses. By way of example, an under-utilized asphalt parking lot could be replaced with multi-function areas such as natural habitat areas, multi-use green space (recreation, temporary seasonal parking, etc.) active and passive recreation.

Reclaim frontage roads as pedestrian and bicycle-only green buffers.

The San Diego River Park planning effort should examine existing frontage roads to assess daily traffic and availability of alternate routes. Where possible, little-used frontage roads, or segments of frontage roads, should be converted to green, vegetated buffers for non-motorized use.

Naturalize floodplain areas.

Floodplains recaptured in natural vegetation offer great promise in improving ecological function. Naturalization should address both current and potential future hydrologic regimes, (Phases 1 and 2 respectively). Similar to previously executed work in the Mission Valley Preserve, Phase 1 naturalization would regrade areas to create upland habitat within the floodplain and provide connectivity between the riparian corridor and upland habitat areas. Phase 2 would use the naturalized floodplain areas to restore river channel dynamics to a more natural hydrologic regime. This naturalized regime would result in improved riparian habitat, particularly for listed species that depend on the river as an agent of disturbance in the floodplain.

Daylight the river's tributaries.

Many of the San Diego River's tributaries, including Alvarado, Murray, Murphy, and Ruffin creeks, are contained in culverts. Daylighting these will illustrate the true architecture of the river, and support the naturalization of the floodplain and river corridor.

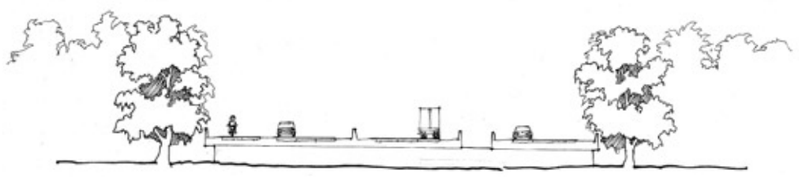
The San Diego River Park should also make stormwater treatment locations visible and aesthetic features that interpret the day-to-day function and cycles of a river.

Use biological systems to treat all stormwater before it enters the river.

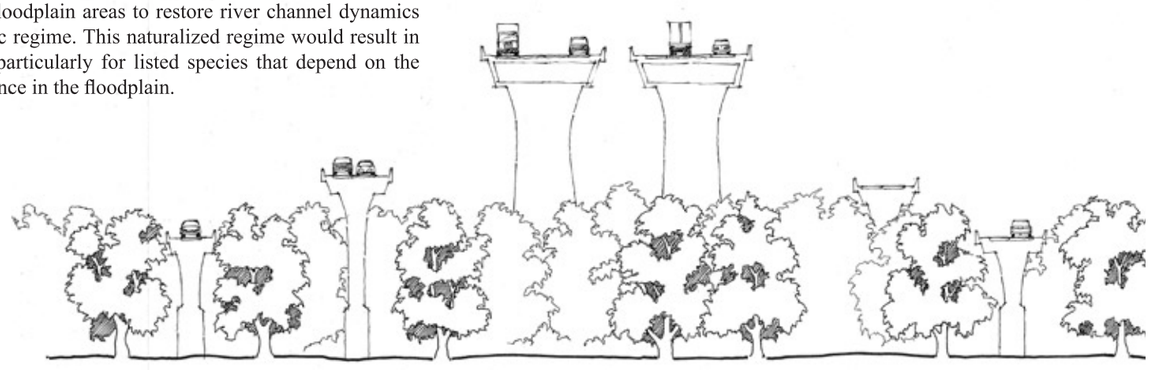
Biological treatment systems (constructed wetlands) provide water quality buffering that illustrates natural processes, provides wildlife habitat and maintains the character of the river corridor. This method of water filtering aligns with the Bureau of Reclamation Stormwater Treatment Program goals.

Separate pedestrian/wildlife and vehicular river crossings.

San Diego River Park improvements should retrofit existing river crossing to allow grade-separated crossings for wildlife, San Diego River Park users, and vehicles. These bridges should address crossings at all scales, from trails to roads to highways. Support the re-opening of the pedestrian passage under Friar's Road near the Costco parking lot.



Section of the Cabrillo Freeway (SR 163) illustrating the through gateway experience as SR 163 crosses the San Diego River. There is a sense of enclosure and a cooler microclimate within the riparian forest canopy



Section od I-805 illustrating the over gateway experience as the highway crosses above the San Diego River. From above, the greenway makes the extent of the river's domain obvious to the motorist.

Establish 'Green Gateways.'

Green gateways are key landscape elements located at the entries to and along the corridors through the San Diego River's domain. The gateways consist of large-scale plantings within public rights-of-way. These plantings include native trees and understory vegetation selected from the Native Plant Species Lists. Western Sycamore (Platanus racemosa) is recommended for this application; this species is a large, easily-recognizable tree that is a signature element of the region's riparian corridors. An iconic tree such as this one will emphasize river proximity.

Green gateways create visual and functional connectivity to the San Diego River corridor and adjacent landscapes. Visually, these gateways mark the domain of the river corridor, providing a variety of view and access experiences. Depending upon each interstate's elevation in relation to the ground plane of the valley bottom, the goal is to convey the sense of going over, or through, the riparian canopy of the river corridor. Visually, these gateways will counterbalance the overwhelming presence of the existing highway infrastructure. Functionally, these gateways will provide additional habitat and connectivity between the riparian corridor and adjacent upland areas.

The San Diego River Park should implement gateways at a range of scales, sized to fit the visual and functional needs of the connections being made. Large-scale gateways are appropriate at locations where highways such as I-5, SR 162, I-805, and I-15 cross the San Diego River Valley. Open space parcels, whether acquired outright or through easements, that are contiguous with the gateways can contribute to and enhance their effect. These open space corridors will extend the native vegetation of the gateways.

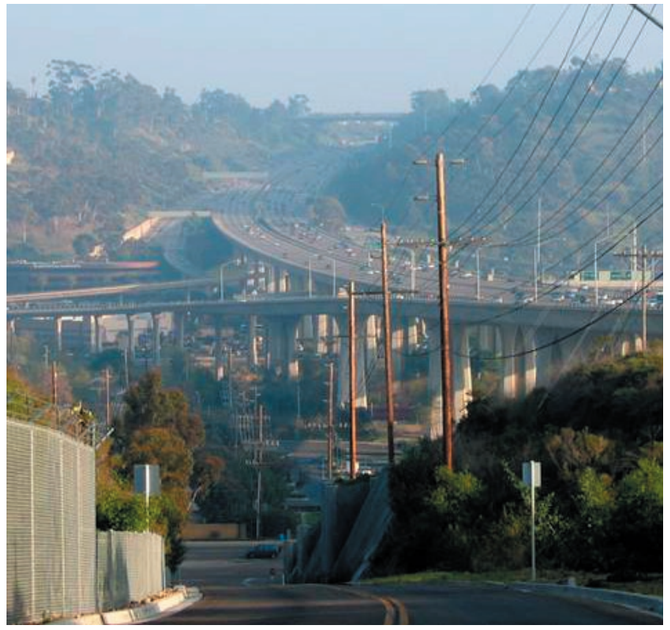
Establish habitat corridors as secondary gateways at side canyons and tributaries.

Habitat corridors can serve as smaller gateways into side canyons and tributaries. These corridor gateways will also provide recreational and habitat connection to less-frequented areas of the San Diego River Park.

In some areas, development may make it difficult to meet the minimum corridor widths. In these cases, the San Diego River Park should seek as wide a corridor as feasible by establishing a recreational trail connection occupying or supplemented by open space easements.

Convert smaller, adjacent streets to 'Green Streets.'

These streets will offer open swale stormwater conveyance and have a tree canopy composed, in part, of native species. These green streets should extend north and south beyond I-8 and Friars Road to provide connectivity to adjacent communities and upland habitat.



Highway infrastructure and Rights-of-ways consume much of the valleys and canyons

Tunnel under Friar's Road should be reopened to link the valley floor with the valley wall and canyon

Conceptual Model:

Morena Linda Vista Trolley Enhancement

Building upon the trolley stop as a community center and interpretive site is an example of the type of idea that the San Diego River Park seeks to achieve. The existing parking lot could become a Community Services Facility, providing meeting space for local groups, community education classes, even a community child care center with an outdoor courtyard oriented to the river. The site offers excellent opportunity to reveal natural systems by taking storm drainage from the site and buildings into a natural filtration system of wetlands that leads to the San Diego River. Bridging the trolley track would create a wide connection to the river and extend the riparian habitat of the river corridor into the site. Diegan sage scrub terraces and upland oaks buffer the site from adjacent streets. An overlook near the intersection with the San Diego River Park Trail would allow views into the riparian woodland of the river corridor.

General Recommendations: Recreation and Cultural Interpretation

Intent

The San Diego River Park planning effort seeks to identify recreation needs and opportunities in the river corridor. Although the recommendations that follow focus on the ½ mile San Diego River Park planning area, existing facilities and recreation needs were examined within the fifteen adjacent community planning areas. Open, developable land for new park land is very limited throughout these areas, with many of them in extreme need of parklands, according to Park and Recreation Department standards. The river corridor is an appropriate place to provide additional recreation, given the valley's central location. As an added benefit, additional recreational lands within the corridor can contribute to open space preservation.

This section discusses active and passive recreation. Active recreation facilities include sports facilities, fields, parks, while passive recreation provides space for activities such as nature study, hiking trails, interpretation of cultural sites. The River Valley also has many private facilities that offer commercial recreation, and the planning process must consider the relationship of those facilities to the San Diego River Park.

The San Diego River Park Master Plan proposes recreation facilities where the need exists, where such facilities would be accessible to the community, and where recreational facilities would not require displacement of existing development. The proposed east-west multi-use trail, as well as lateral bike and pedestrian paths, are proposed to link neighborhoods to new parks and regional recreation facilities. Interpretive areas and passive park uses are recommend where cultural and natural resources are most significant.

Recommendations

- Connect recreational experiences into a linear system
- Create connections from Ocean Beach to Santee
- Create waystations
- Upgrade and integrate existing parks into San Diego River Park system
- Explore opportunities for additional community- or neighborhood-scale park

The five recreation components listed above will tie the San Diego River Park together. These components work together to provide a balance of community and neighborhood based facilities, and to relate those facilities to regional open space and parklands. While the first two components are broad in scope, the remaining components are more site-specific.

Connect Recreational Experiences Into a Linear System

Reinforce the river corridor with recreational and interpretive elements throughout the corridor's length. Land uses and character should be appropriate and sensitive to the river and to the surrounding neighborhood. Elements within individual parks along the San Diego River Park corridor will vary, depending upon exact location. This recommendation seeks to create green spaces and naturalized areas for informal use, adjacent to existing developments.

Program Elements

- Overlook/Mini-parks (pocket park) sized play area
- Rest Areas
- Interpretive Areas
- Gathering places/amphitheatres/outdoor classroom
- Refreshment facilities/Coffee Carts
- Interpretive loop trails
- Education/research sites
- Tree-shaded public parking (cars, motorcycles and bikes)
- Transit connections

Create connections from Ocean Beach to Santee

Organize an east-west multi-purpose trail with lateral connections to communities. In general, the San Diego River Park multi-purpose trail conforms with the San Diego Bicycle Master Plan. Cases where conformance is not possible, or depart from design guidelines in favor of alternative options, are discussed later in this document, in the Specific Reach recommendations section.

Program Elements

- Bike trail on one side of the river only
- Unpaved hiking trail on side opposite the bike trail
- Separate all portions of bike path from vehicular uses
- Above and/or below grade crossings at all intersections with vehicular traffic
- Design guidelines for incorporating the bike path into future developments
- Lateral connections to neighborhoods:
  - -Primary links - Morena Blvd..., Jackson Dr., Mission Gorge Rd., Texas St., Ulrich St.
  - -Secondary links - Princess View Dr., Tierra Santa Blvd..., Zion Ave. Mission Village Dr., Mission Center Rd., Bachman Pl.
- Connections to businesses and activity/shopping centers
- Connections to resource based parks: Balboa Park, Mission Bay Park, Mission Trails Regional Park

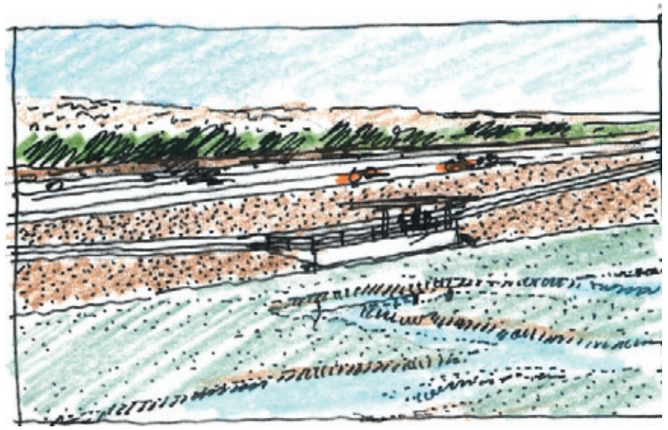
Ocean Beach

Create waystations

Waystations will offer stopping points along the river's length, or at nodes where a north-south connection to a community meets the San Diego River Park. Generally, waystations will be along a bikeway or walking trail, and will feature scenic views or interpretive opportunities. Waystations at new neighborhood parks, mini-parks and cultural resource areas will draw upon a common set of San Diego River Park building materials and graphics. The material palette will be selected for public infrastructure projects as well as private development.

Program Elements

- Bike staging area
- Interpretive elements (natural science, history, culture)
- Kiosks/newsstands
- Parking
- Restrooms
- Target golf (at Carleton Oaks)
- Naturalized areas with native plants
- Picnic areas
- Locations:
  - --Dog Beach (western portal)
  - --Carlton Oaks Park (eastern portal)
  - --various gateways, portals, nodes and interpretive areas



Waystation at Estuary

Integrate existing parks into San Diego River Park system

This recommendation seeks to bring awareness of the river to existing facilities adjacent to the river. Physical and conceptual elements of the San Diego River Park should be used in upgrades and renovations of existing parks. Establishing a set of materials that are evocative of the San Diego River will knit the system together, and is an overall goal of the San Diego River Park project. More detailed information regarding design elements may be found in the 'Design Guidelines' section of this document.

Materials

- Signage w/ San Diego River Park logos
- Native plants (riparian in lowlands, Diegan Coastal Sage in uplands and slopes)
- Wood
- Cobble stone
- Warm-colors and texture of native sand in concrete finishes

Explore opportunities for community or neighborhood-scale park

The Mission Valley community requires 38 acres of recreational parks, in order to be in compliance with the City of San Diego population-based goals for 2002. By 2020, Mission Valley this number will increase to 66 acres of parkland. Long-range San Diego River Park planning should consider providing a park within this community, so that San Diego River Park facilities would provide at least 60% of Mission Valley's required park area. An urban park model, linked with a Mission Valley Line trolley stop, may be a strong possibility.

Walkers along bikeway

Bicycle / Multi-use Paths

Bicycle paths are an important element of recreation and essential to the San Diego River Park. Paths provide an alternative to automobile travel, offering users a slower-paced and more direct experience. New paths proposed as part of the San Diego River Park Trail will be paved, multi-use trails or secondary pedestrian trails. Generally the multi-use trail will link existing paved trails except in Mission Trails Regional Park. For this document, Class I, II, and III are per Caltran Highway Design Manual, the trails are defined as follows:

Class I Bikeway (Bike Path):
Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized. These are typically paved, have separate right-of-ways, and are mostly in parks, along rivers, beaches, and lakesides. 12 feet wide concrete paved path. Minimum turn radii and grade per standard.

Class II Bikeway (Bike Lane):
Provides a striped lane for one-way bike travel on a street or highway.

Class III Bikeway (Bike Route):
Provides for shared use with pedestrian or motor vehicle traffic.

Multi-Use Trail:
8-12 feet wide paved concrete path with 2 foot wide crusher fines shoulders on each side. Minimum radii and grade per standards

Secondary Pedestrian Trail:
5' wide soft surface trail (crusher fines). No minimum radii, alignment responds to natural conditions with no disturbance to existing vegetation and minimal grading.

Various City plans and studies, listed below, were consulted for the

bike component of this master plan. Assistance was received from City planners and the San Diego Bike Coalition.

- Plan Report - City of San Diego Bicycle Master Plan (2002, ALTA Transportation Consulting)
- Feasibility Study – Mission Valley Bikeway (2001, Kimley-Horn and Associates)
- Qualcomm Stadium / Zion Avenue Bikeway Feasibility Study (2001, Rick Engineering)
- San Diego River Bikeway Feasibility Study (2000, Linscott Law & Greenspan Engineers)
- Color-coded Mission Valley Community Plan with Existing/ Proposed Bikeways & pedestrian Paths (2004, John Wilhoit, City of San Diego).

There are several bike paths in the San Diego River Park that are on a multi-use path, separated from vehicular circulation and shared with pedestrians. Common goals shared between this master plan, the 2002 City of San Diego Bicycle Master Plan, and the community plans are as follow:

- Continuous bike travel from Ocean Beach, through Mission Valley and to Mission Trails Regional Park – along the San Diego River
- Connection to Mission Bay
- Connection to Mission Hills
- Connections to activity centers in Mission Valley
- Bicycle sensitive signal detectors at signalized intersections
- Above-grade crossings at key vehicular/multi-use trail conflicts

for more info:
http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm#download

A Little League game at Sefton Park

- Natural features: habitat, ecology, geography, geology, hydrology,
- Historic and cultural features: pre-history, native American, Mission settlement, Ranching, Development, Infrastructure, San Diego River Park restorations
- See also Preservation and historic opportunities section
- See also habit and hydrology sections

Pedestrian-only/ Hiking Trails

- Green gateways
- Trail character
- Amenities and Facilities
- Trailheads and parking

Recommended passive recreation opportunities

- Viewing platforms/overlooks along main trail at locations within the river corridor
- Within estuary reach, along the base of floodway levees.
- FSDRIP (see FSDRIP loop trail below).
- Loop trails from trailheads, interpretive centers, and waystations
- Connect Linda Vista trolley stop to existing trail loop in Mission Valley Preserve.
- At FSDRIP, create interpretive loop trail by replacing paved trail on opposite side of multi-use trail with a permeable surface such as decomposed granite. Regrade loop trail to allow trail to meander across side slope and to establish overlooks with views of ponds and wildlife.
- Qualcomm/Fenton/River Garden trail loop
- Mission San Diego de Alcala trail loop; trail around lakes at the Confluence, connecting Mission San Diego de Alcalá to the Grantville Redevelopment area commercial district and Alvarado Canyon connection.
- Alvarado Canyon/Murray Lake trail loop; a loop trail leaving the river at Alvarado Creek, connecting to Adobe Falls, SDSU, Lake Murray, and connecting up to the river trail again at Mission Trail Regional Park.
- Navajo loop trail; a smaller loop from the Alvarado confluence area through Navajo Community natural areas connecting to the Superior Mine redevelopment.
- Trails connecting to tributary canyons and adjacent neighborhoods
- Support off leash recreation for dogs and people at Dog Beach and support ongoing community improvements.

General Recommendations:
Public Art Recommendations

Intent

Public art has a potent role in bringing life to the San Diego River Park. The diversity of history and culture in the San Diego region and specifically in the San Diego River Valley offers a tremendous opportunity to engage the community with the experience of the river. Public art should integrate with cultural and natural systems and build upon the specific circumstances of the diverse environments along the river corridor. The City of San Diego has adopted a public art policy that promotes artist involvement in selected City design and construction projects. Such involvement is encouraged with all projects associated with the San Diego River Park.

Recommendations

- Create identity with art.
- Integrate art into the San Diego River Park experience.
- Include artists in the design process
- Make art accessible to everyone

Create identity with art.

San Diego River Park Trail System

At every opportunity, art should be incorporated into the San Diego River Park Trail. Art elements should be a component of trail access points, interpretive areas and signage, fountains where appropriate, fencing, furnishings and in the paving texture and color of the trail itself at locations of significance such as intersections, street crossings and entrances.

Integrate art into the San Diego River Park experience.

Public Art in Parks and Open Space

Art should play a role in the design of parks and natural open space. In parks, art elements should be incorporated into entrances, furnishings, lighting, fencing, interpretive areas and signage, as interactive elements and as sculpture. In natural areas, a sense of design should be incorporated with the science of ecological restoration of native habitat to create identifiable and memorable places, as the form can add richness and understanding of how the natural systems function. In addition, art should be incorporated into the interpretation of the systems.

Include artists in the design process.

Public Art in Public Projects

In projects initiated by public entities, art and artists should be involved in a significant role to contribute to the project design. Art elements may be incorporated into entrances, furnishings, lighting, fencing, interpretive areas and signage, as interactive elements and as sculpture.

Make art accessible to everyone.

Incorporation of publicly accessible art on private projects should be supported and encouraged. The City of San Diego Commission for Arts and Culture may serve as source of information for means and methods of incorporating art into specific projects and for the selection of specific artists.

"Konoids"
Artist: Kenneth Capps
Carlsbad, California
http://www.portofsandiego.org/sandiego_publicart/

"Surfhenge"
Artist: Malcolm Jones
La Jolla, California
http://www.portofsandiego.org/sandiego_publicart/

"Aspen Tree's"
Artist: Catherine Widgery
Invesco Field Denver, Colorado

Reach Recommendations

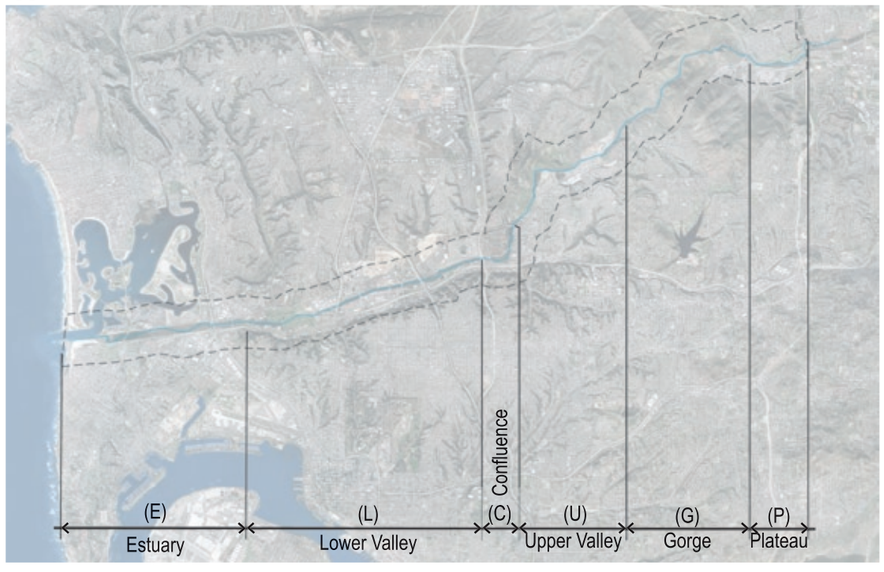
Specific Reach Recommendations

The San Diego River can be understood as a linked series of discrete segments or reaches. The unique characteristics and opportunities of each reach suggests an approach that reveals the best qualities of each reach and showcases the changing visual and physical experience as one moves through the valley.

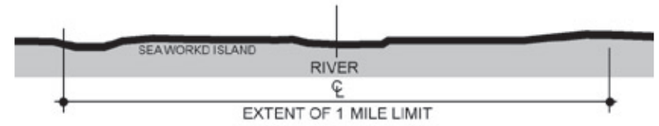
Within the City of San Diego, the Plan identifies six reaches as a means of organizing specific actions needed to create the San Diego River Park. Traditionally distinguished by hydrologic characteristics, these reaches are based upon distinct topographic condition, spatial experience, land use, and jurisdiction. Following the flow of water from the hills to the ocean, the reaches are the Plateau, the Gorge, Upper Mission Valley, the Confluence, Lower Mission Valley, and the Estuary.

The pages that follow outline intent, condition and recommendations for each reach. The first of these categories describes the Plan's specific goals for the area, followed by an assessment of the reach's current conditions. The last category outlines the broad strokes of the Plan's recommendations. This 3-part overview of the reach is followed by a map of the reach and a table of specific action items and their proposed implementation.

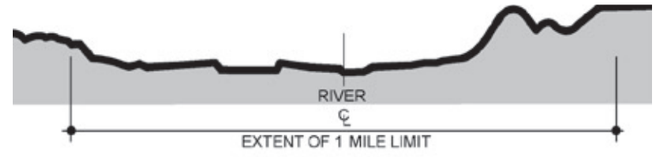
The benefits to hydrology, ecology, recreation and education of each action are described in detail in the detailed matrices located in the appendices



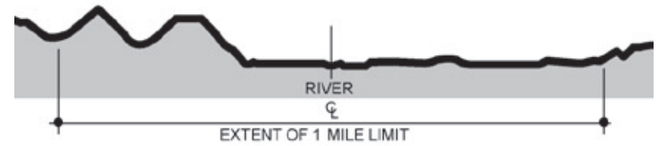
Six Reaches



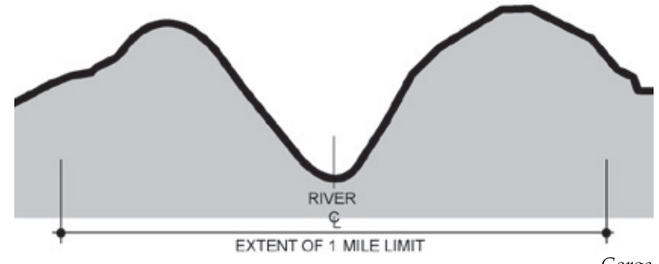
Estuary



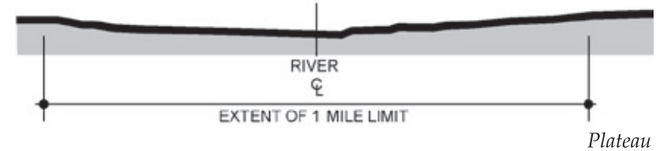
Lower Valley



Upper Valley



Gorge



Plateau

Estuary

Intent: Extending from Mission Valley Preserve to the Pacific Ocean, the Estuary reach offers an astonishing sense of openness, and a sense of release as one moves past the Linda Vista Terrace topped by the University of San Diego and the Presidio. Only here and at the Plateau above Mission Trails Regional Park does the San Diego River Park have the potential to capitalize on long, picturesque views and the experience of vast, open space. In the Estuary reach, the San Diego River Park must strive to build upon this experience, and to protect and expand the unique wildlife habitats of the estuarine ecosystem. The San Diego River Park should also seek to educate visitors about the sensitivity of these ecosystems.

The estuary supports rich avian and aquatic species

Condition: The estuarine ecosystem at the mouth of the San Diego River is remarkably healthy, but significantly smaller than its original extents. The Derby Dike on the reach's southern edge is responsible for this reduction in scale, separating the river from its delta that historically (and alternately) included both Mission Bay and San Diego Bay. The dike has also restricted and concentrated pedestrian and vehicle circulation, resulting in heavily battered boundaries to the river channel.

The multiple bridges of Interstate 5, Mission Bay Drive and the railroad have had additional impacts on the estuary, creating an abrupt terminus and disrupting the gentle transition from estuarine to riparian habitat. The tremendous experience of boundlessness once expressed by the estuary and shoreline is now limited by views of development and the dikes, and by highways containing the river. Despite these alterations, the Estuary remains an expansive environment defined by horizontality.

Diverse estuarine vegetation

Recommendations:

- Support the goals of Mission Bay Park
- Create a continuous trail
- Improve connections to other open spaces
- Establish a minimum 300' open space corridor
- Create passive component at Mission Bay Park
- Study potential to improve connections with Mission Bay Park

The Estuary Reach of the San Diego River Park must balance two primary needs: human interaction at an educational & experiential level, and the protection and maintenance of sensitive habitat. Careful design can accommodate both elements in a manner that benefits the system as a whole.

People must be both engaged and isolated within the estuary reach. Greater understanding of the ecosystem through interpretation will instill a sense of ownership and care for this delicate part of the river. A defined trail system and viewing platforms are part of this effort.

The Park should also seek to expand the physical area of the estuary, in order to further diversify the wildlife habitat. This potential may exist at Famosa Slough and Mission Bay.

Opportunities to explore the expansion of the estuary should be sought where possible, to further diversify the wildlife habitat. The potential to do so may exist at Famosa Slough and at Mission Bay. Planning efforts should also acknowledge that, in the Estuary Reach, the entire corridor proposed for the San Diego River Park is within the boundaries of Mission Bay Park. Planning must therefore integrate with and support the Mission Bay Master Plan.

Support planning efforts in Mission Bay to provide a passive, ecology-based facility, which includes educational and interpretive opportunities, public art, and scenic overlooks. The Park should orient itself toward the river, and buffer the river edge with native vegetation.

Estuary Section


Mission Bay Park
Vacation Isle
Mission Beach
Fiesta Island
Sea World
Morena
Tecolote Canyon
University of San Diego
E9S
E7S
E6S
E6S
E8S
E5S
E4S
E3S
E2S
E1S
Mission Bay Channel
Dog Beach
San Diego River Estuary
Robb Memorial Field
Famosa Slough
Sports Arena
Existing Class One Trail
Sea World Drive
Mission Bay Drive
Nimitz Blvd.
Riverwalk Golf Club
Trolley
Cal Trans Site
Old Town
Presidio Park
Ocean Beach Pier
Ocean Beach
Loma Portal
U.S. Marine Corp Base
ESTUARY REACH
5
Legend:
Existing Class 1 Bikeway
Proposed Mult-Use Trail
Existing Connecting Bikeways
Proposed Connecting Bikeways
Proposed Secondary Pedestrian Trail
Recommended Minimum Corridor Width
Community Plan Outline
Waystation
Proposed Trail Overpass/Underpass
Proposed Viewing Platform
Key Site
Green Gateway

KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
Short Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
E1S	Remove lowered portion of jetty wall. Investigate feasibility of connection with appropriate engineering study. Barrier- Although not consistent with Mission Bay Master Plan, it has the potential to better integrate the bay and river hydrologically	Suggested for feasibility study purposes only. Collaborate with appropriate community and special interest groups to initiate a feasibility study to explore the benefits and impacts of removing the jetty through hydrologic modeling and other methods. Potential to develop study through a joint science program related to the San Diego River.	●	●		●
E2S	Create San Diego River Park Trailhead and Waystation at Dog Beach. Maintain Dog Beach as an off-leash recreational destination and community asset	Collaborate with appropriate community and special interest groups to install signage, interpretive kiosks and furnishings in vicinity to provide information about estuarine function, wildlife habitat and trail system. Throughout the San Diego River Park signage, kiosks, and furnishings should be unified by a continuity of materials and graphics while also reflecting the adjacent environment and neighborhoods. Link Trailhead and Waystation to existing bike lanes, bike routes, and trails in Ocean Beach, Point Loma, and Mission Beach.	●	●	●	
E3S	Coordinate with Mission Bay to support marsh restoration that is underway.	Collaborate with Mission Bay Park to install signage in vicinity to provide information about estuary function and wildlife habitat.		●		●
E4S	Create San Diego River Park Trailhead and Waystation and historic and natural interpretation zone at Robb Field.	Collaborate with appropriate community and special interest groups to install signage, interpretive kiosks and furnishings in vicinity to provide information. Coordinate with Community Plans in future to integrate park and river trail. Unify interpretive signage, furnishings, and construction with other San Diego River Park projects Maintain Robb Field as multi-use recreational complex, and expand in future as community recreation needs increase.			●	●
E5S	Explore potential to improve and expand connection of the Famosa Slough with the San Diego River estuary. Investigate feasibility of augmenting the connection with appropriate engineering study. Potential conflict with Famosa Slough Master Plan.	Collaborate with Mission Bay and Friends of Famosa Slough to initiate feasibility study to explore benefits and impacts of replace existing culvert with larger structure and to improve trail connectivity between the San Diego River Park Trail and Famosa Slough. Consider linking existing Famosa Slough trail with the existing Class I Bike Path. Increase passive park areas into new river alignment and/or new link with Famosa Slough.	●	●	●	
E6S	Create estuary overlooks along the San Diego River Park Trail, separated from trail system and at estuary surface level.	Collaborate with Mission Bay to develop, design, and select specific locations for interpretive overlooks on both the north and south sides of the San Diego River estuary. Sites for consideration: Famosa Slough, Mission Point, historic confluence of Tecolote Creek and the San Diego River, estuary restoration projects, and Sports Arena (Bay to Bay Bridge). Sites for consideration: Linda Vista Village and YMCA in the Lower Valley Reach.		●	●	●
E7S	Develop temporary multi-use programs for under-utilized lands that are proposed for other future uses.	Collaborate with appropriate community and special interest groups to explore opportunities to fully utilize land for ecologic, educational and recreational uses.		●	●	
E8S	Explore potential to create a new park with a connection to the river and neighborhood as the Sports Arena redevelops. If possible, expand river into this area similar to Famosa Slough.	As the Sports Arena redevelopment plans move forward, seek opportunities to engage with the process to integrate those plans with the San Diego River Park by creating trail connections, installing interpretive kiosks, and potentially a Community Park.			●	●
E9S	Improve trail and open space connection between Tecolote Canyon and Mission Bay.	Collaborate with appropriate community and special interest groups to explore potential to relocate Fiesta Island dike with a bridge located north of Tecolote Creek. Explore potential to reconstruct I-5 and railroad crossings over Tecolote Creek with larger bridges or culverts that can accommodate pedestrian movement. Explore potential to acquire parcels such as the tennis courts and trailer park area or implement conservation easements to allow for grade separated trail and habitat connection between canyon and bay. Consider Class I Bike Path in riparian channel, and link to proposed (Plan Report City of San Diego Bicycle Master Plan) Class I Bike Path adjacent to Coaster right-of-way.	●	●	●	


Mission Bay Park
Morena
Vacation Isle
Mission Beach
Tecolote Canyon
University of San Diego
Fiesta Island
E14S
E12S
E16S
E15S
Sea World
Riverwalk Golf Club
E17S
Sea World Drive
Trolley
Mission Bay Channel
San Diego River Estuary
E11S
Talmadge
E13S
Dog Beach
Famosa Slough
Sports Arena
E10S
Old Town
Presidio Park
E18S
Robb Memorial Field
Mission Bay Drive
Ocean Beach Pier
Ocean Beach
Nimitz Blvd...
Loma Portal
U.S. Marine Corp Base
ESTUARY REACH
Legend:
Existing Class 1 Bikeway
Proposed Mult-Use Trail
Existing Connecting Bikeways
Proposed Connecting Bikeways
Proposed Secondary Pedestrian Trail
Recommended Minimum Corridor Width
Community Plan Outline
Waystation
Proposed Trail Overpass/Underpass
Proposed Viewing Platform
Key Site
Green Gateway

KEYNOTE	RECOMMENDATION	IMPLEMENTATION STRATEGY	BENEFITS			
Short Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
E10S	Create connection between the San Diego River Park and the San Diego Bay.	Implement Class 2 and Class 3 Bikeways along Rosecrans Street and Taylor Streets as proposed by the Plan Report City of San Diego Bicycle Master Plan			●	
E11S	Continue San Diego River Park multi-use trail east of the I-5	Coordinate with Community Plan, North Bay Redevelopment Plan and San Diego Bicycle Master Plan. Reference Plan Report City of San Diego Bicycle Master Plan and Mission Valley Bikeway Feasibility Study. Path alignment proposed by this report differs from those alignments at west edge of Sefton Park.			●	
E12S	Establish Green Gateway at interchange of I-5 / I-8.	Initiate dialogue with Caltrans, City of San Diego Streets and Community Plans to explore the methods for implementing native plant palette in rights-of-ways. Where appropriate, identify existing undeveloped parcels contiguous with rights-of-way and explore potential to acquire or establish open space easements to expand connectivity of Green Gateways.		●		
E13S	Create a Waystation, Trail Connection and naturalized open space between Old Town / Presidio Park and the river corridor.	Initiate dialogue with Transportation Department to create shuttle links from trolley at Old Town/ Linda Vista and Ocean Beach/ Sea World/ Mission Beach. Prepare detail design study for waystation, trail connections, bicycle staging, and exploration of shuttle links.		●	●	●
E14S	Connect Morena Blvd. Bikeway and San Diego River Park multi-use trail.	Coordinate with San Diego Bicycle Master Plan. Study feasibility of connecting (future) Morena Blvd... bridge Bikeway (per Plan Report City of San Diego Bicycle Master Plan) and proposed San Diego River Park multi-use trail at south edge of Morena Blvd. bridge. The Bikeway is at street level; the multi-use trail is down in the river valley.			●	
E15S	Support and build upon access and interpretation zone at Mission Valley Preserve.	As San Diego River Park Trail is implemented, develop trailhead with signage, interpretive kiosks and furnishings.			●	●
E16S	Create connection between the San Diego River Park and adjacent neighborhoods to the north.	Coordinate with San Diego Bicycle Master Plan and develop detail study to confirm specific alignment. Coordinate with Mission Valley Community Plan to include in update as amendment. Implement Bikeway along Morean Blvd... to Taylor Street as proposed by the Plan Report City of San Diego Bicycle Master Plan. Improve connection of existing Class I Bike Path (from East Mission Bay Drive to Fashion Valley Road) to Morena Blvd. and to Linda Vista Trolley Station.			●	
E17S	Mission Bay Park Interface	Coordinate with appropriate community groups for the Mission Bay Park Master Plan and South Shores General Development Plan to ensure appropriate park and river interaction.			●	●
E18S	Maintain Dog Beach as an off-leash recreational destination and community asset.	Support appropriate community and special interest groups to manage Dog Beach and integrate it with the San Diego River Park.			●	


Mission Bay Park
Vacation Isle
Mission Beach
Fiesta Island
Tecolote Canyon
University of San Diego
E6L
E7L
E8L
E11L
E12L
Riverwalk Golf Club
Sea World
E1L
E3L
Sea World Drive
E10L
Trolley
E3L
E2L
Existing Class One Trail
E5L
Mission Bay Channel
San Diego River Estuary
CAL Trans Site
Tahoe St
Dog Beach
E2L
E9L
Famosa Slough
Sports Arena
E4L
Old Town
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KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
Long Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
E1L	As Sea World may evolve in the future, encourage redevelopment that engages San Diego River Park and estuary and creates trail connection to San Diego River Park Trail.	Collaborate with Sea World to engage in re-development process to create awareness of the goals of the San Diego River Park. Encourage better connections and access, use of native vegetation, education about the river, and integration of Sea World as one of the linked ameneties of the San Diego River Park.		●	●	
E2L	Explore potential to realign and terrace river edge.	Collaborate with appropriate community and special interest groups to initiate feasibility study to modify the river channel embankment.	●	●	●	
E3L	Explore potential to expand estuary boundaries.	Collaborate with Mission Bay Park to initiate feasibility study to modify the river channel embankment and expand estuary environment.	●	●	●	
E4L	Explore potential to collaborate with creating greenway connection with San Diego Bay.	Collaborate with North Bay Redevelopment as it evolves.		●	●	
E5L	Create connection to Sports Arena.	Collaborate with North Bay Redevelopment. Plan to locate and plan potential pedestrian bridge over I-8 and other joint porjects				
E6L	Coordinate with Mission Bay Master Plan to consider modifications to Mission Bay and Tecolote Treatment Wetlands Plan.	Collaborate with appropriate community and special interest groups to extend feasibility study to explore the potential to create estuarine link between Mission Bay and the River. Such a study should consider potential to explore replacing dike to Fiesta Island with a bridge to improve flows in Mission Bay.	●	●		
E7L	Investigate potential for locating a River and Estuary Interpretive Center that supports the Mission Bay Park Master Plan inerpretive program.	Initiate dialogue with appropriate community and special interest groups to explore potential to consider another location for the Nature Center or to develop an additional Interpretive Center associated with the river and estuary.		●		
E8L	Collaborate with Mission Bay and Land Fill Study to explore the potential to expand estuary by connecting the San Diego River with Mission Bay.	Collaborate with Mission Bay to initiate feasibility study to create an estuarine link between Mission Bay and the San Diego River. Extensive study and modeling will be required to fully understand the impact of linking the River and the Bay on flows and water quality. Engage the Mission Bay Landfill Study in the process. Could be explored through a joint science coalition.	●	●		●
E9L	As Robb Field is improved in the future, create a landscape that relates to estuary and river edge.	Coordinate with Community Plans and Park and Recreation Department plans for future improvements.		●		
E10L	Broaden river channel and meander throughout Mission Valley Preserve.	Collaborate with Mission Bay Master Plan. Opportunity to partner with determining disposition of landfill and expand potential benefit and purpose.	●	●	●	●
E11L	Create major San Diego River Park access node at Linda Vista and integrate with potential Green Gateway at I-5 and Friar's Road.	Coordinate with Community Plans to identify sites and land owners to explore potential acquisition or to establish easements for access and interpretive trail head locations.		●	●	
E12L	Create new multi-use trail on north side of river.	Coordinate with San Diego Bicycle Master Plan.			●	

Lower Valley

Intent: The Lower Valley extends from the edge of Mission Valley Preserve to Interstate 15. Due to intensive patterns of development since WWII, this area is arguably the most altered section of the river; it is also perhaps the most complex.

The Lower Valley segment of the San Diego River Park can serve many roles: a focal point for new development and re-development, a link between adjacent uses (stadium, hotels, shopping, library, food and drink), a common space for neighboring communities. The San Diego River Park may take on its most urban character along this section, with plazas or amphitheaters reaching out from development toward the river.

For the San Diego River Park to succeed, however, it is essential that development retreat from the river corridor to allow some "breathing room" for wildlife habitat, trails, and natural open space. By re-vegetating adjacent areas and rights-of-way with native species, the infrastructure that has choked the side canyons may serve as the means to reestablish wildlife connections to upland open space.

Condition: The Lower Valley is heavily suburbanized; extensive paving in the form of parking lots and roadways, massive infrastructure projects and relatively low density development surround this reach. The river's presence is further marginalized by channelization and ponding. Simple lack of space presents a severe hydrological constraint throughout the Lower Valley, and exotic vegetation, primarily *Arrundo donax*, negatively impacts the reach's native ecosystems.

The neighborhoods of the Lower Valley and the communities above the valley walls are exceptionally deficient in active recreation space available; the San Diego River Park may be able to play a role in addressing this need. Little undeveloped space or public land exists within this reach, offering few opportunities for the river to meander, wildlife habitat to expand, or for the creation of parks and trails.

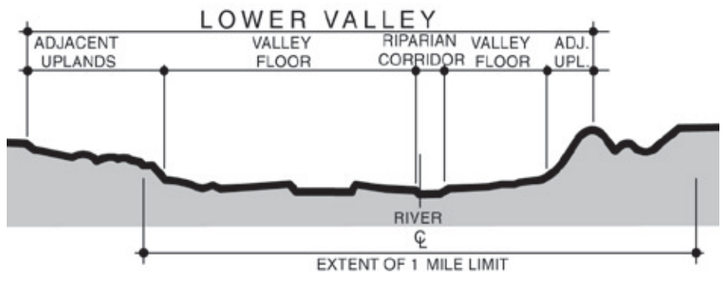
Recommendations:

- Create a continuous trail.
- Acquire land and establish open space easements.
- Establish a minimum 300' open space corridor, as much as 1000' in undeveloped areas.
- Acquire a portion of Riverwalk Golf Club when it redevelops.

The heavily urbanized condition of this reach should be seen less as a deterrent for future park scenarios than as a fulcrum upon which novel park solutions can be leveraged. The San Diego River Park has the potential to combine 'natural' programs, such as the healthy hydrology of the river and its ecological habitat, with 'urban' programs, such as active and passive recreation and an accessible and urban corridor edge. By inviting activities such as field sports, entertainment, and shopping into the corridor, the river becomes a place of varied experiences. Reaching out to a larger number of user groups, an active river scene will introduce the river's historic and modern faces to a broad spectrum of people. The rights of way associated with the valley infrastructure present key opportunities to establish gateways into the valley and the city, and to extend the color and texture of native plant communities throughout the valley.

Space for the river must be sought out in the Lower Valley. Through open space easements and property acquisition, the San Diego River Park can become real. Riverwalk Golf Club and the Qualcomm Stadium site are two opportunities for parkland development.

The Valley should be considered as a whole, and consistent recommendations regarding new development, streets and landscape should be established. These guidelines should set the character of the valley, moving it toward being a greener place planted with native species that concentrates higher-density away from the river edges. Moving density away from the river will allow the San Diego River Park to incorporate critical wildlife habitat corridors. Where little space is available, these corridors should aim to maintain generalist species. Where greater corridor width can be achieved, the San Diego River Park should seek to accommodate more sensitive species that have greater habitat requirements.



Lower Valley Section

Lower valley looking northwest

Lower Valley from USO looking southeast

Key Sites:

Riverwalk Golf Club Redevelopment Site

There is opportunity to establish a community- or neighborhood-scale park at, or near, Riverwalk. New park development should seek to provide 10-12 acres of public space, adjacent to the river but buffered with naturalized open space. The nearby YMCA is expected to continue its private, fee-based recreation facility, and Sefton Park little league field will continue to operate. Connection to these facilities could be strengthened with a trailhead near the YMCA. While the previous Mission Valley community plan calls for a community park at the YMCA site, usable land is at a premium, and environmental conflicts with the nearby wetlands are obstacles that make community park acreage unlikely.

The Levi-Cushman Specific Plan for the Riverwalk Golf Club site was approved in 1987. The plan proposes roughly 5.2 million square feet of mixed-use development including residential, retail, commercial, office and recreational uses for the approximately 200 acre site. The Specific Plan aligns with the San Diego River Park Master Plan in focusing development on the river, and this concept should guide future modifications to the plan. The Specific Plan departs from San Diego River Park goals in proposing and a 12-acre island as well as a 25-foot river planting buffer intended to "prevent direct access and habitat areas". These recommendations should be modified to favor a naturalized river pattern as suggested in this Master Plan, increasing the channel width, creating meander and separating the stream flow from any existing ponds. The San Diego River Trail can serve the site by providing an amenity to people living and working within the proposed development, as well as providing pedestrian and bicycle commuter access to surrounding neighborhoods and the trolley.
The trolley right of way may offer opportunity for an interim trail alignment, until a more defined redevelopment concept can determine the best permanent location.

The river is unprotected from runoff through the golf course

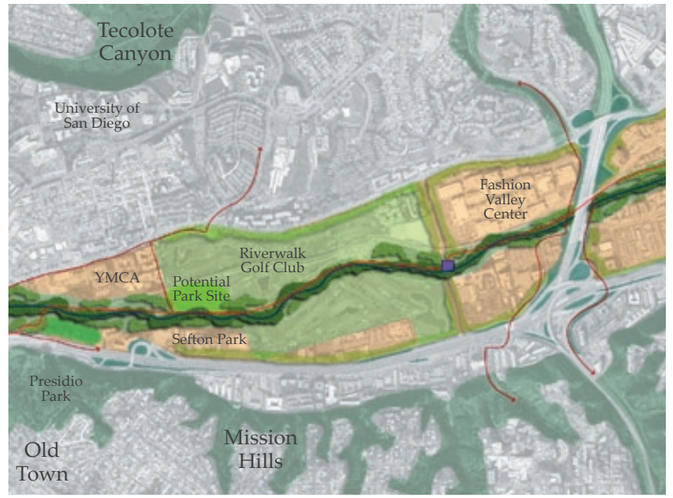
Program Elements

- Play fields – may be non-regulation if space is at a premium
- Children's play area
- Location visually or conceptually connected to the river
- Character reflects the river's ecology and history
- River function incorporated into design

Key Points

- Critical location for continuity of the San Diego River Park Trail and for meeting basic park and recreation needs in Mission Valley.
- Potential for site to redevelop for more intensive use makes time critical to taking action.
- Acquisition of 7-15 acres is recommended to establish a neighborhood park.
- Existing Specific Plan proposes extensive development, and further ponding and channelization of the river.
- Recommend that Open Space Corridor equal the width of the existing floodway (varying width up to approximately 1000'). Minimum width for Open Space Corridor should be 300' plus trail corridor/buffer to development. Open Space Corridor will provide adequate width to re-contour the river channel to allow for increased river length, meander and increased riparian habitat.
- In the short term, trail should be developed following the trolley alignment, within the trolley right-of way. In the long term, trail should be developed adjacent to the Open Space Corridor.

View to Presidio from Riverwalk Golf Club



Riverwalk Golf Club

Bikeway at River Walk

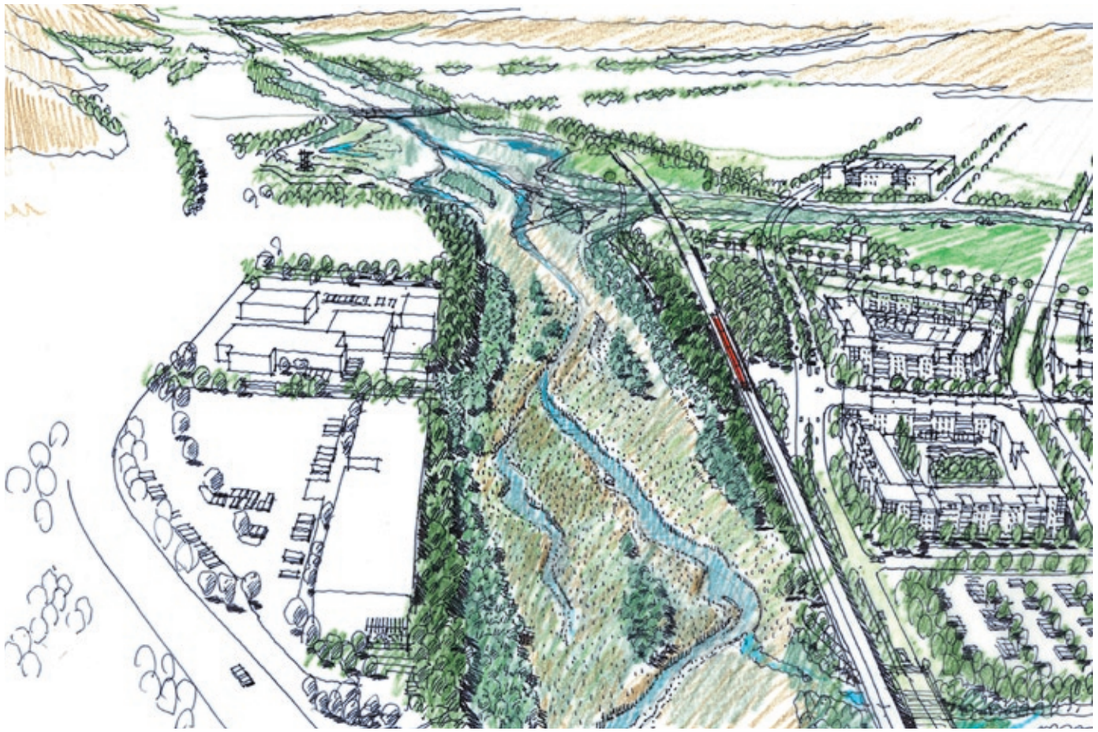
Qualcomm Stadium

Opportunity for a community or neighborhood park also exists at the Qualcomm Stadium site. This park should ideally be 20-40 acres. Like River Run Park, the site should be adjacent to the river but buffered with naturalized open space.

- Land is currently owned by City of San Diego.
- Critical location for meeting basic park and recreation needs in Mission Valley.
- Critical location for creating continuity in San Diego River Park and San Diego River Park Trail.
- Potential for site to redevelop for more intensive use makes time critical to taking action.
- Develop community scale park with an extensive naturalized component adjacent to the river corridor; this park should have an extensive naturalized component. Locate passive recreation on north and south sides of trolley alignment, active recreation on current stadium site.
- Provide multi-use and pedestrian trails adjacent to river corridor.
- Maximize open space corridor (to trolley alignment): minimum 300' width, plus trail corridor/buffer.
- Extend open space corridor between proposed stadium location and I-15 to create new habitat and trail connection to Murphy Canyon.
- The "Mission City" bridge project was proposed by the City in 2002, but was not approved. As development continues in this area, this project may be reconsidered. In order to insure the goals of the San Diego River Park, it is important to co-ordinate with any possible bridge proposals."

Program Elements

- Ball fields
- Picnic facilities
- Amphitheater
- Play area with "natural" character (wood, boulders, sand)
- Pedestrian linkage: park to river and Murray Canyon
- Focus park toward river

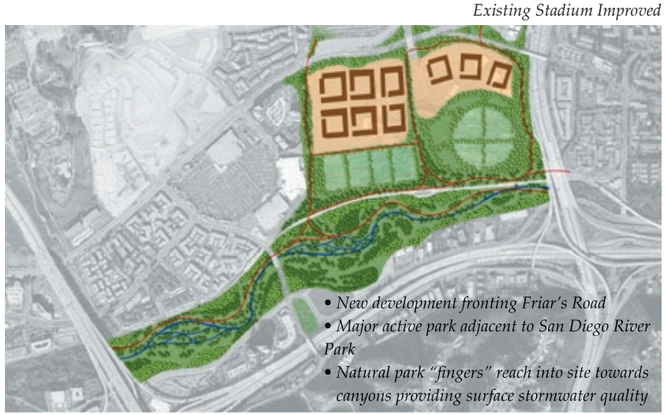


San Diego River and Qualcomm Stadium Conceptual Site Redevelopment

Alternative Approaches

New Stadium (Modified Central Park Concept)

Existing Stadium Improved

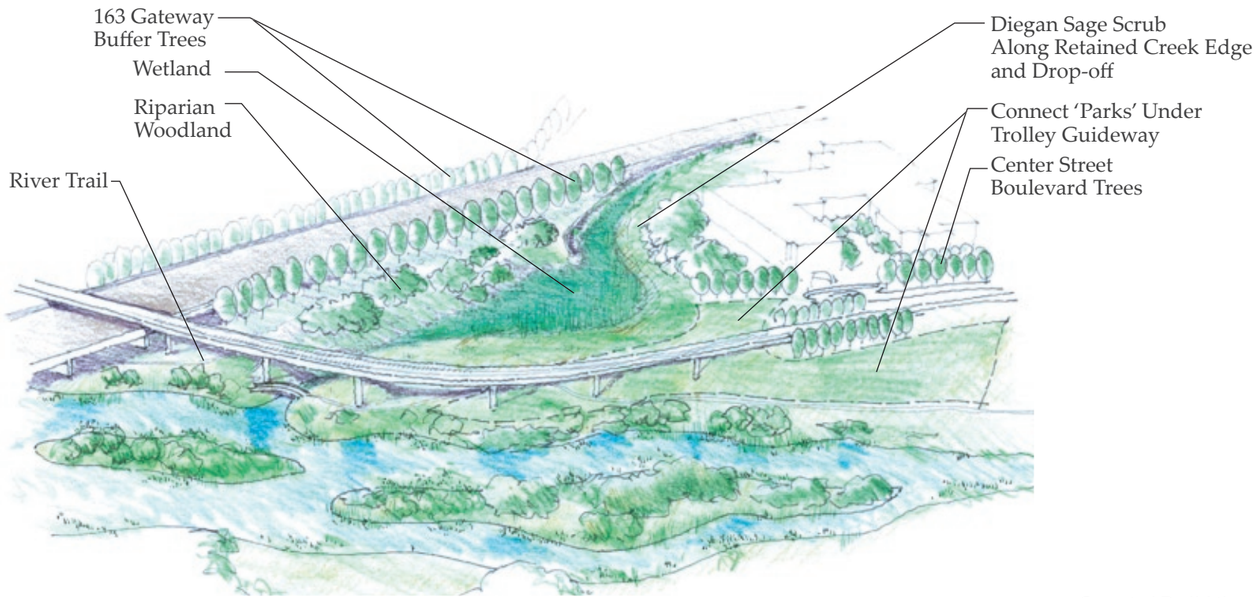


No Stadium-Park and Mixed Use

Murray Creek Enhancement

Murray Creek currently passes under Friar's Road just east of its intersection with SR-163. It is channelized, lined with rip rap (large rocks of a fairly uniform size), then enters four large culverts passing under the alignment of the proposed extension of Camino Del Rio that drain into the San Diego River.

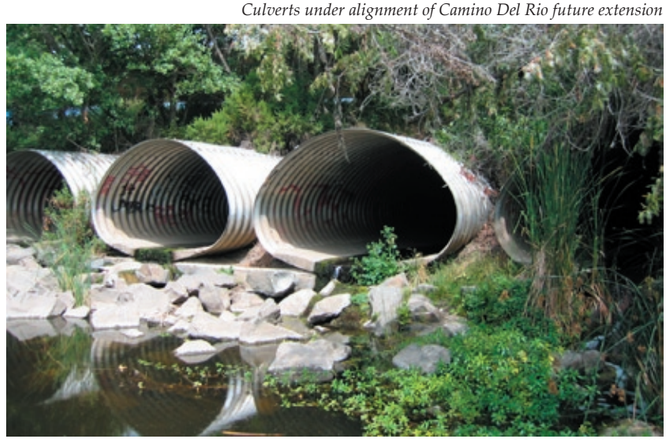
Enhancing Murray Creek can improve water quality and wildlife habitat. Murray Creek also offers the opportunity to celebrate the confluence of tributary and river. The channel should be widened if possible, and the rip rap softened with plantings of native species. Replacing the culvert with a bridge structure will allow expanded growth of riparian vegetation, increase the potential for wildlife movement across the river and provide adequate space for a spur trail connecting the San Diego River Trail with nearby residences and retail development. The Murray Creek area can support wetland and riparian woodland vegetation, transitioning to Diegan Sage Scrub at higher elevations adjacent to 163 and surrounding development. Interpretive signage at the trail and adjacent to the proposed road can increase awareness of the canyon-valley physiography and the presence of side canyon streams. Signage on the bridge should identify Murray Creek. Plantings of trees along SR-163 will buffer the Creek from views to traffic and link it with the "Green Gateway" proposed for the 163-Friar's Road intersection.



Conceptual Daylighting of Murray

Murray Creek along 163

Culverts under alignment of Camino Del Rio future extension



Murray Creek outfalls


Tecolote Canyon
Murray Canyon
Ruffin Canyon
Serra Mesa
Murphy Canyon
805
Linda Vista
163
L15S
Friars Road
Qualcomm Stadium
L4S
Trolley
Qualcomm Way
L14S
Potential Mission City Parkway Bridge site.
Mission Heights Park
Lric Rd.
L8S
L11S
L12S
L12S
L12S
University of San Diego
Camino De La Reina
Mission Valley Center
Camino Del Rio South
Normal Heights
Avenido Del Rio
Fashion Valley Mall
L13S
L10S
Mission Center Rd.
L5S
Camino Del Rio North
Old Trolley Barn Park
L1S
Riverwalk Golf Club
Fashion Valley Rd.
Adams Ave.
University Heights
Hotel Circle North
Hotel Circle South
8
L2S
L3S
L9S
L8S
Texas St.
Mission Hills
UCSD Medical Center
Hillcrest
163
LOWER VALLEY REACH
LOWER VALLEY REACH
Legend:
Existing Class 1 Bikeway
Proposed Mult-Use Trail
Existing Connecting Bikeways
Proposed Connecting Bikeways
Proposed Secondary Pedestrian Trail
Recommended Minimum Corridor Width
Community Plan Outline
Waystation
Proposed Trail Overpass/Underpass
Proposed Viewing Platform
Key Site
Green Gateway

KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
Short Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
L1S	Separate stream from ponds and increase stream meanders.	Coordinate Sefton Fields, YMCA, and Metropolitan Transit Development Board to explore potential to aggregate land for multiple use open space and create joint open space for expanding river corridor. Initiate specific study to develop design concept.	●	●		●
L2S	Explore potential to develop Neighborhood Park. Engage River Walk Golf Course land owner in discussion to explore options to extend trail along trolley corridor, to modify river edges in golf course in the short term, and to modify proposed development plan in the long term.	Engage land owner to discuss potential for land acquisition or easement for trail connection. Current use is parking / storage. Possible archaelogic value to the site. Coordinate with San Diego Bicycle Master Plan and Riverwalk GC owner. Engage bicycle master planners in process to explore potential revised alignment through Riverwalk GC. Initiate dialogue to explore long term intent and potential of land to accommodate park and/or trails. Coordinate with Mission Valley Community plan to include alignment and buffer in plan update as amendment.		●	●	●
L3S	Explore potential to acquire under-developed land site.	Engage land owner to discuss potential for land acquisition or easement for trail connection. Current use is parking / storage.Possible archaelogic value to the site.		●	●	●
L4S	As stadium redevelops, engage developers to integrate open space connections between San Diego River Park and canyons.	Coordinate with City of San Diego and stadium developers to create a plan that engages the river and adjacent canyons. Coordinate with Mission Valley Community Plan to include an update as an amendment.		●	●	
L5S	Create historic interpretation zone adjacent to trail.	Engage land owner to discuss potential for land acquisition or easement for trail connection and interpretive waystation. Integrate with trail implementation project.			●	
L6S	Not used					
L7S	Not used					
L8S	Create open space and trail connection upland communities.	Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan to identify specific route alignment.		●	●	
L9S	Establish Green Gateway at interchange of I-8 and SR163.	Initiate dialogue with Caltrans, City of San Diego Streets and Mission Valley Community Plan to explore the methods for implementing native plant palette in rights-of-ways and undeveloped easements.		●		
L10S	Connect existing Class I Bike Paths to the east and west of Highway 163.	Implement Class I Bike Path below Highway 163 north of the river as proposed by the Plan Report City of San Diego Bicycle Master Plan.			●	
L11S	Establish Green Gateway at interchange of I-8 and Friar's Road.	Initiate dialogue with Cal Trans to determine means of changing right-of-way plant palette.		●		
L12S	Explore potential to connect FSDRIP bike trails across intersections with grade separated crossings.	Follows proposed alignment pf Class 1 Bikeway in accordance with San Diego Bicycle Master Plan. Initiate dialogue with Bicycle Master Planners and City of San Diego Streets.			●	
L13S	Improve open space connection between Murray Creek and river valley by daylighting Murray Creek within existing right-of-way. Daylight Murray Canyon drainage and create wetland and natural filtration zone.	Initiate dialogue with Caltrans and land owners to explore means of effecting development in progress and integrating creek cor-ridor into future evolution of existing development.	●	●	●	●
L14S	Create trail connection from Mission City Trolley Station to Qualcomm Way.	Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan to identify specific route alignment.			●	●
L15S	Utilize existing underpass as a means of connecting to neighborhoods and canyon north of Friar's Road.	Support City of San Diego and property owners in effort to improve underpass entrances. Provide lighting and potential better pedestrian connections to the underpass.			●	


Tecolote Canyon
Murray Canyon
Ruffin Canyon
Serra Mesa
Murphy Canyon
805
Linda Vista
163
Qualcomm Stadium
Friars Lane
Trolley
L26S
L20S
L16S
L21S
L17S
Qualcomm Way
Mission Heights Park
Liric Rd.
Potential Mission City Parkway Bridge site.
University of San Diego
L19S
L22S
L17S
Camino De La Reina
Avenido Del Rio
Friar's Rd.
Fashion Valley Mall
Mission Center Rd.
Mission Valley Center
Camino Del Rio South
Normal Heights
L25S
Camino Del Rio North
Old Trolley Barn Park
Riverwalk Golf Club
Fashion Valley Rd.
Adams Ave.
University Heights
Hotel Circle North
Hotel Circle South
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Texas St.
Mission Hills
UCSD Medical Center
Hillcrest
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Short Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
L16S	Mission City Parkway Bridge Mitigation Site. Integrate new riparian and sage scrub habitat restoration with San Diego River Park and trail.	Coordinate with public entities and community groups.		●		
L17S	Establish Green Gateway at interchange of I-8 and I-805 and at interchanges of I-805 and Friars Road.	Initiate dialogue with Caltrans, City of San Diego Streets and Mission Valley Community Plan to explore the methods for implementing native plant palette in rights-of-ways and undeveloped easements.		●		
L18S	Not used.					
L19S	Explore potential to acquire some or all of undeveloped land.	Engage land owners in dialogue to explore potential to acquire land or to create open space easements. Coordinate with Mission Valley Community Plan to include in update as amendment.	●	●	●	
L20S	Improve trail experience. Add trail (class 1) in conjunction with Qualcomm redevelopment.	Coordinate with San Diego Bicycle Master Plan.			●	
L21S	River Garden site. This undeveloped land parcel adjacent to river corridor has great potential to be incorporated into San Diego River Park.	Collaborate with San Diego River Park Foundation to support River Garden project and connect it to the San Diego River Park Trail. Coordinate with Mission Valley Community Plan to include in update as amendment.	●	●	●	
L22S	Potential Heritage Farm Site, creating historic agriculture interpretive site and community garden and create connections to surrounding areas.	Collaborate with San Diego River Park Foundation to support Heritage Farm project and with San Diego Bicycle Master Plan to integrate trail connectivity.			●	
L23S	Not used.					
L24S	Not used.					
L25S	Create bike path connection to San Diego River Park Trail from Bachman Place, Camino de la Reina and Avenida del Rio.	Coordinate with San Diego Bicycle Master Plan and develop specific study to confirm route alignment.			●	
L26S	As stadium redevelops, engage with developer and planner to develop a community park and additional naturalized open space with the San Diego River Park.	Coordinate with City of San Diego and stadium developers to create a plan that engages the river and adjacent canyons. This is a key site in the Lower Valley Recommendations, refer to the preceding pages for additional detail and potential planning alternatives. Coordinate with Mission Valley Community Plan to include an update as an amendment.			●	


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Potential Mission City Parkway Bridge site.
L4L
University of San Diego
Camino De La Reina Stadium Way
Friar's Rd.
Avenido Del Rio
Mission Center Rd.
Mission Valley Center
Camino Del Rio South
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KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
Long Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
L1L	Engage land owners to encourage future redevelopment of Riverwalk GC to address river.	Initiate dialogue with land owners to encourage modifications to current plan to include 300' habitat buffer for river, river meander, native vegetation and San Diego River Park Trail corridor.		●	●	●
L2L	Connect to Presidio Park via Taylor Street bridge over I-8.	Initiate dialogue with Caltrans to explore potential to improve pedestrian component of the Taylor Street bridge to better accomodate pedestrians and bicyclists.		●	●	
L3L	Improve trail connections between river corridor and canyons.	Coordinate with San Diego Bicycle Master Plan to incorporate trail linkages.			●	
L4L	Improve Mission City Parkway over crossing to connect river corridor and upland open space.	Initiate dialogue with Caltrans to explore the potential to improve Mission City Parkway bridge over I-8 to connect people to uplands.		●	●	
L5L	Create open space and trail connections to uplands via an improved Texas Street.	Coordinate with City of San Diego and the San Diego Bicycle Master Plan to improve Texas Street and create a dedicated bicycle trail with a naturalized open space corridor.			●	
L6L	Remove flow restrictions as part of a new vision for FSDRIP.	Initiate feasibility study, Refer to L9L.	●	●	●	
L7L	Create trail and open space connection to Balboa Park.	Coordinate with San Diego Bicycle Master Plan and Caltrans to identify potential trail alignment. Initiate feasibility study to identify specific trail alignment.		●	●	
L8L	Engage landowners to explore potential to create urban park oriented to the river on both sides of river.	Initiate dialogue with land owners and developers to explore potential to orient development to the river and create a quasi-public urban park edge to the river associated with retail uses.			●	
L9L	In the long term, explore the potential and methods needed to recreate the FSDRIP area as a component of a functional river environment.	Initiate feasibility study to explore alternative scenarios to FSDRIP that improve the river environment and separate stream flow from ponds and improves wildlife habitat and trail experience.	●	●		●
L10L	Engage land owners to acknowledge river as site may redevelop in long-term future.	Initiate dialogue with land owners to engage them with the development of the San Diego River Park to create awareness and explore potential to create secondary trail connections to private development.		●		
L11L	Implement bike path as part of the San Diego River Park Trail.	Coordinate with San Diego Bicycle Master Plan to identify specific alignment and implementation priority.		●	●	
L12L	Relate and connect open space in development plans with the river corridor.	Initiate dialogue with land owners and developers to integrate design process with the San Diego River Park.		●	●	●

Confluence

Intent: The Confluence reach is the area between Friars Road Bridge and I-15. It is where Murphy Canyon, Alvarado Creek and two minor canyons once joined the San Diego River as it turned west to the Pacific Ocean. There is opportunity to reveal this junction of canyons and streams in a way that celebrates the cultural, ecological, and historical significance of each. This reach also acts as gateway to multiple destinations, allowing users to access Murphy, Alvarado or the River.

Grantville Redevelopment study could encourage improvement of property adjacent to the river

Gravel mine ponds below Friar's Road bridge

Condition: This reach is partially enclosed by the steep wall of the knob topped by Mission San Diego de Alcalá. Encroaching development on the east and Interstate 8 on the south further emphasize the sense of enclosure.

The river corridor is also constrained by a series of old gravel mine ponds below the Friar's Road Bridge; these ponds impede the normal hydrologic activities of the river system. The narrow vegetated corridor is inadequate to separate stream flow from these ponds and the size and depth of the ponds makes filling impractical. Extensive exotic vegetation infestation is present both in the ponds (ludwigia) and in the river (arrundo donax). As the river turns west it is isolated by highway infrastructure, private property, and difficult physical terrain. The dense arrundo further adds to the river's inaccessibility.

River is choked by invasive nonnative vegetation

Recommendations:

- Create a continuous trail.
- Create a connection with Alvarado Canyon.
- Acquire land or establish open space easements.
- Establish a minimum 300' wide open space corridor.
- River corridor is narrow and constrained above the bend. Past sand and gravel operations have resulting in relatively deep ponds. Separating the stream channel from the ponds is recommended, but additional land is likely necessary to achieve this.
- Acquisition of land adjacent to the river corridor is recommended. Trail connection through this narrow corridor will be difficult due to steep side slopes if additional land is not acquired.
- Trail easements to provide connection to Mission San Diego de Alcala at each of the Confluence Reach is recommended.
- Coordination with the Grantville Redevelopment Study presents the potential opportunity for the San Diego River Park to positively influence redevelopment as well as to benefit from new activities along the river corridor.

The Grantville redevelopment study, now in its early stages, may provide the tools to significantly change the river landscape in the Confluence. By engaging owners of under utilized property on the east edge of the river corridor, the study may open opportunities for land acquisition or open space easements that could increase corridor width. A wider corridor would allow the river to be separated from the ponds, and offer space for the creation of a trail corridor. Once the ponds are separated, a complementary action might be improving them for more intensive recreation activity such as fishing and boating.

If the open space corridor in these areas can be expanded to the east, the San Diego River Park Trail can be best accommodated on the east side of the river. The west side of the river is steep and narrow, but does have possibilities for trail construction as well.

There is significant potential to recreate important wildlife habitat connection between the river valley, Murphy Canyon and Alvarado Creek. Such connection would represent a meaningful first step toward reestablishing the physiographic origins of the valley. A trail and habitat/open space connection along Alvarado Canyon Road will link Adobe Falls to the river, further unifying the valley's recreational and interpretive resources.

Key Sites:

Confluence with Alvarado Creek

- Critical location for reconnecting San Diego River with its most significant tributary canyon within the City of San Diego.
- Although beyond the bounds of this Plan, daylighting and dechannelizing Alvarado Creek is an important component of connecting the river valley to the canyon, providing potential space for expanding and connecting habitat and trail to the canyon, San Diego State University and upland neighborhoods.

Channelized Alvarado Creek above Grantville Post office

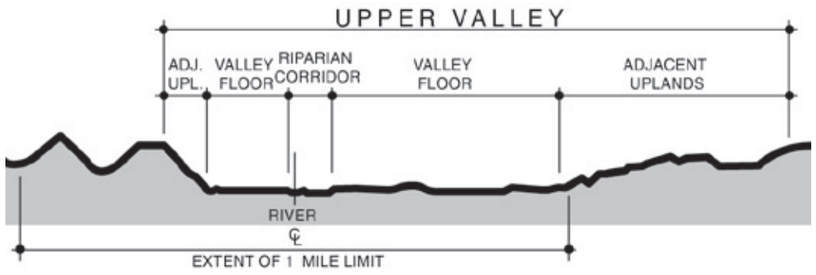
Channelized Alvarado Creek behind Medical Center

Daylighting Alvarado Creek

Upper Valley

Intent: The Upper Valley reach extends from Friars Road Bridge to the west boundary of Mission Trails Regional Park. It is a reach comprised of complex physiographic and surface condition, with a diversity of experience from the enclosure of steep valley walls in the east to broad and open near Admiral Baker Golf Course. Heavily impacted by human activity, conditions of this reach range from the severe character of a surface mine to the exotic landscape of a golf course, bracketed alternately with dense development and original sage scrub habitat. This reach is particularly significant for habitat, offering the potential to extend the diverse habitats of Mission Trails Regional Park further into the valley. This reach also offers tremendous potential to dramatically transform the landscape and improve the health of riparian and terrestrial ecosystems.

Upper Valley looking east over Admiral Baker Golf Course



Upper Valley Section

Condition: The Upper Valley is characterized by three hydrologic conditions that are deleterious to the health of the river system. First, the gravel extraction mine bordering Mission Trails Regional Park has channelized the river and disrupted habitat continuity through and across the mine site. The river is similarly channelized further downstream through the federally owned and maintained Admiral Baker Golf Course. This element poses additional risk of surface runoff-carrying pesticides, fertilizers and other pollutants-because of the lack of a buffer between the golf course and the river.

Secondly, the river corridor through the mine site is infested with exotic plant species, particularly Arundo donax. These exotics displace native riparian vegetation, causing the concomitant loss of the animal species that would typically inhabit this vegetation. Finally, the river channel is interrupted by a series of ponds that obstruct the natural sediment transport processes of the stream. A problem shared by other ponds in the system, the unnatural stream flow invites further infestation by non-native plant species; in still water conditions the encroaching species is typically the surface plant Ludwigia.

Recommendations:

- Establish a substantial (500′ minimum) open space corridor through the Superior Mine redevelopment area.
- Acquire land for park and open space.
- Connect Admiral Baker Golf Course with the river.
- Explore opportunities to improve water quality and river pattern.

Evolution of the landscape within the Upper Valley hinges upon the successful engagement of the mine owners and the Admiral Baker Golf Course in the planning process. As the mine land moves toward reclamation and redevelopment, collaboration with between mine site developers and the San Diego River Park planning process can bring about benefits to both the San Diego River Park and the new development. Creating adequate corridor for habitat and trail is a minimum requirement. A broad natural corridor through the mine site could serve as a strong organizing feature of the development. This corridor might include trail, native riparian habitat, an infiltration zone for ground water recharge, and/or an improved river channel with introduced meanders. The potential to acquire portions of the site to create open space and recreation land, should also be explored.

Similar opportunities exist for the Admiral Baker Golf Course. There are no plans to close or redevelop the course, but there are opportunities to integrate the course in the river corridor. Methods of meshing the two landscapes might include pedestrian trail connections across the course or the redevelopment of the golf course as a “links” or target course with native landscaping between tee and green. The incorporation of native plant species, creating a visual link and habitat corridor from the river corridor to the canyon north of the golf course, would be another strong step toward integrating the river and recreational environments.

San Diego River Park planning is within the proposed Grantville redevelopment study to ensure compatibility between the two efforts. The redevelopment study presents an important means of implementing the Park through the Upper Valley.

As redevelopment occurs, the stream flow should be separated from ponds throughout the Upper Valley; this action will improve flow velocities and reestablish some degree of sediment transport. Separation might be accomplished in small ponds by filling, where the amount of fill required is not overly great. In larger ponds which would require an impractical quantity of fill, a new and separate river channel should be created. The ponds may also function as reservoirs for occasional pulse flows, infiltration locations for ground water recharge, and recreational resources for activities such as fishing and boating.

Key Sites:

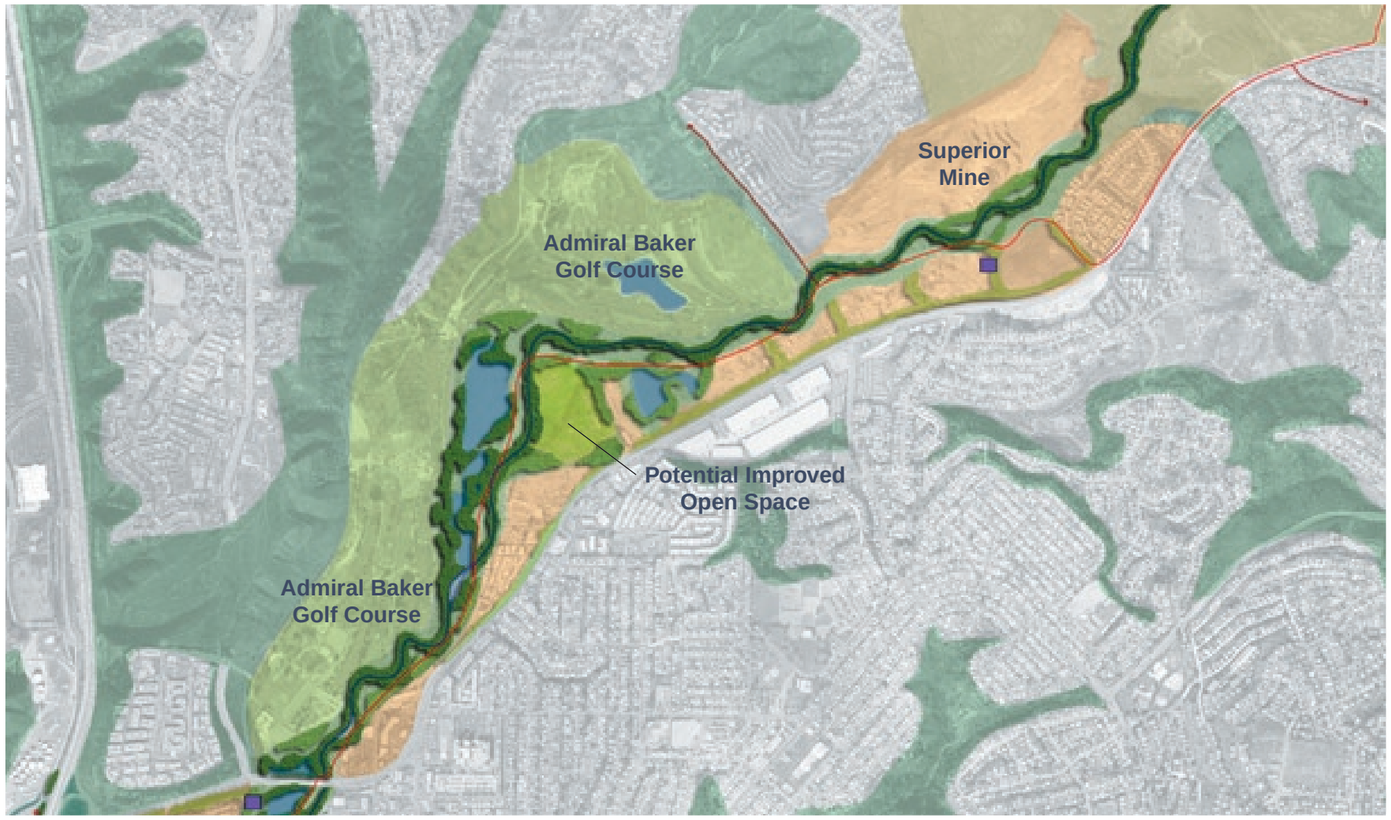
Admiral Baker Golf Course

- Ongoing discussions with Navy Planners is essential to finding an appropriate level and means of integrating the golf course with the San Diego River Park.
- Critical location for potentially greatly expanding habitat area and connection to upper canyon north of the golf course.
- Potential to create trail connection around or possibly through the golf course.
- Minimum open space corridor is 500', but this may be adjusted through collaborative planning with the golf course may offer additional width. Open space corridor will provide adequate width to separate the river from the existing ponds and re-contour the river channel to allow for increased river length, meander, and increased riparian habitat.

Superior Mine Redevelopment

The incorporation of San Diego River Park elements offers the site's owners the potential of increased property values, providing strong incentive for cooperative planning at this location. The site's close proximity to Mission Trails Regional Park also creates an excellent opportunity to use the river and its landscape as a unique, and identifying character of the site as well. Cooperative planning, and river-sensitive design would benefit end-users by providing a visual and recreational amenity, as well as commuter bicycle connection to adjacent communities and trolley service.

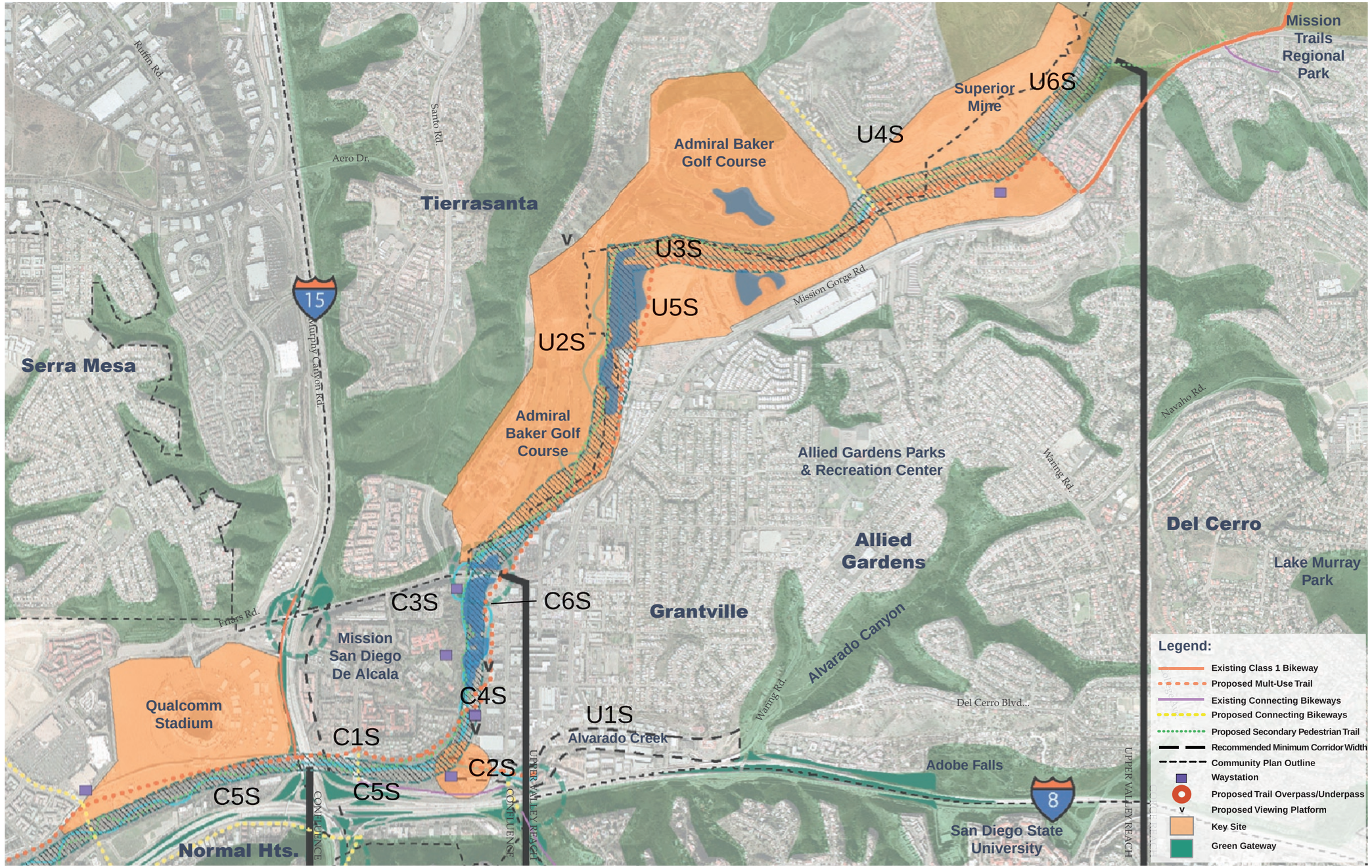
- Ongoing discussions with Superior Mine planning consultants and land owners is essential to finding an appropriate balance between development and open space.
- Potential for site to redevelop for more intensive use makes time critical to taking action at the planning level. While mining operations are scheduled to continue for another 20 years, potential redevelopment value may reduce the time frame.
- Minimum 500' Open Space Corridor is recommended in addition to trail corridor/buffer.
- Acquisition of 15-20 acre site is recommended for development as a naturalized park with access to the river from Mission Gorge Road.



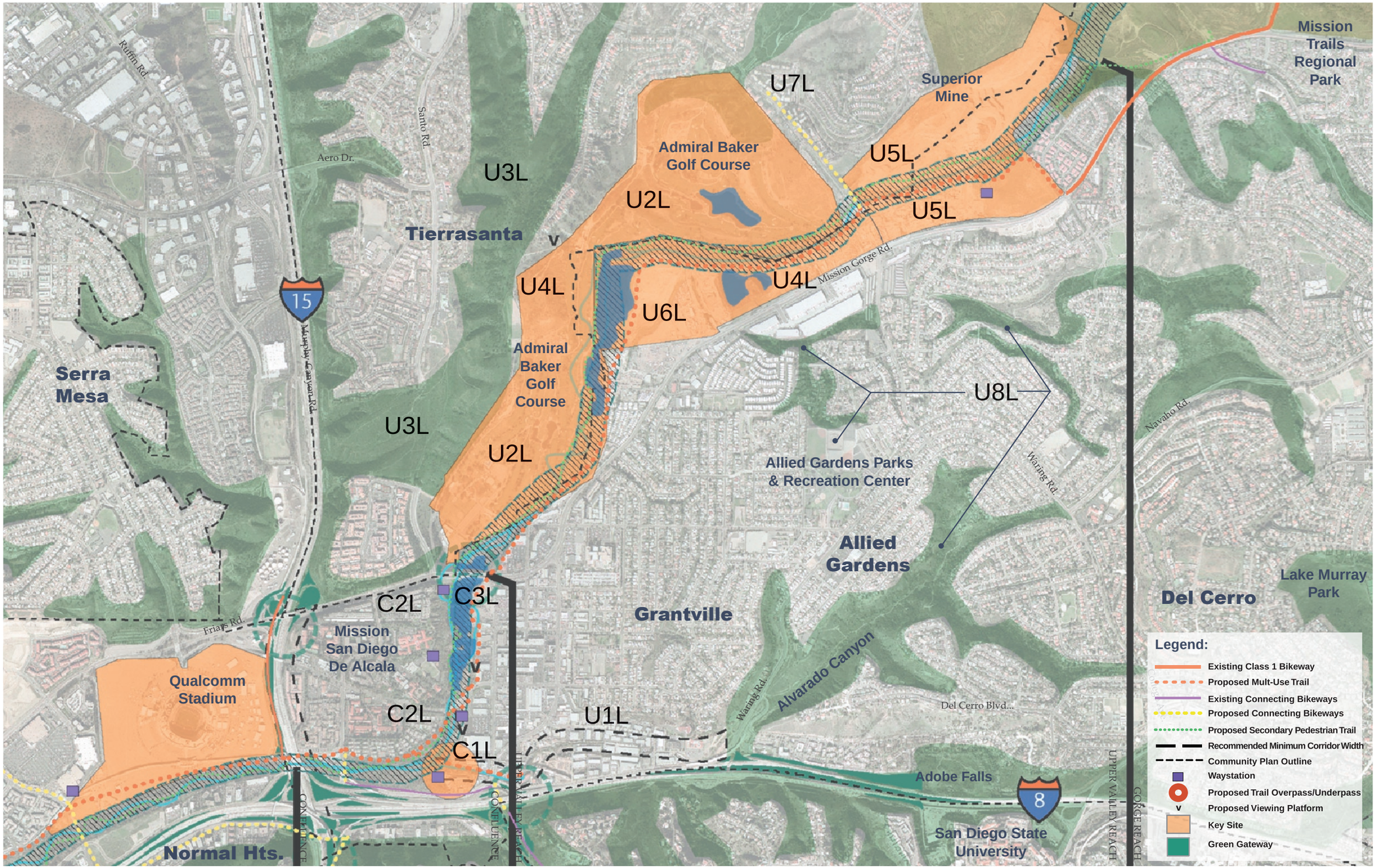
Admiral Baker Golf Course and Superior Mine Redevelopment Site

Admiral Baker Golf Course

Superior Mine



KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
Short Term			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
C1S	Create San Diego River Park Trail along north edge of river.	Coordinate with San Diego Bicycle Master Plan, Grantville re-development study and Mission Valley Community Plan to study potential an to identify specific route alignment of potential multi-use trail on north side of the river.			●	
C2S	Improve open space and trail connection with Alvarado Canyon.	Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan to study potential an to identify specific route alignment of potential multi-use trail on south side of Alvarado Creek. Coordinate with public agencies to explore potential to aggregate public lands under a single management.	●	●	●	
C3S	Augment ponds by removing barriers between sections. A larger deep water body is better than a number of smaller, divided segments. If possible, divert low flow of river around the ponds.	Coordinate with Granteville re-development study and Mission Valley Community Plan to identify potential for open space easements or land aquisition to increase open space on east edge of ponds.			●	
C4S	Coordinate with proposed Grantville redevelopment to create improved open space at the bend in the river.	Initiate dialogue now with Grantville Redevelopment Study to identify potential land for park use through acquisition or open space easements.	●	●	●	●
C5S	Develop city owned property as wetlands habitat preserve. Potential for CalTrans property to be developed for habitat and areas for the San Diego River Park Trail.	Integrate Caltrans property as part of riparian open space.	●	●	●	
C6S	Create San Diego River Park Trail along east edge of river.	Coordinate with San Diego Bicycle Master Plan, Grantville re-development study and Mission Valley Community Plan to study potential an to identify specific route alignment of potential multi-use trail on east side of the river if land can be acquired. Identify location for pedestrian bridges crossing the river and creating connection to Mission San Diego de Alacala. If land cannot be acquired study alternative alignment on west side of river.			●	
U1S	Coordinate with proposed Grantville redevelopment to preserve additional open space along river and at confluence with Alvarado Creek.	Initiate dialogue now with Grantville Redevelopment Study to identify potential land for habitat, trail and recreation through acquisition or open space easements. Coordinate with Navajo Community Plan.	●	●		
U2S	Engage Navy planners to explore potential to create habitat and continuous multi-use trail near river.	Coordinate with Navajo Community Plan.	●	●	●	●
U3S	Remove exotic vegetation and plant native species.	Coordinate with land owners to develop vegetation management program along the river and on developed property. Exotics to be removed include Giant Reed (Arrundo) Pampas Grass, Eucalyptus, Brazilian Pepper, Castor and Water Primrose.		●		
U4S	Collaborate with redevelopment of Superior Mine to create interpretation zone of valley history, mining operations, and future redevelopment where appropriate at edge of active operation.	Initiate dialogue with Superior Mine land owners and planners to explore potential to create interpretive kiosk in the short term.				●
U5S	Engage land owner and ongoing planning effort to explore potential to acquire land as improved open space.	Initiate dialogue with Superior Mine land owners and planners to explore potential to acquire land or establish open space easements to create a significant open space and/or park somewhere within the undeveloped land in addition to a 500' habitat corridor, broaden the river channel with potential to create meander, and a continuous multi-use trail.		●		
U6S	Engage land owner to develop plan remove exotic vegetation, optimize and restore quality of riparian corridor.	Coordinate with land owners to develop vegetation management program along the river and on developed property.		●		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U7L
U5L
U5L
Admiral Baker Golf Course
U3L
U2L
Tierrasanta
V
U4L
U4L
Mission Gorge Rd.
U6L
15
Admiral Baker Golf Course
Serra Mesa
U8L
Navajo Rd.
U3L
U2L
Allied Gardens Parks & Recreation Center
Waring Rd.
Allied Gardens
Lake Murray Park
Del Cerro
C2L
C3L
Grantville
Friars Rd.
Mission San Diego De Alcala
Qualcomm Stadium
V
C2L
U1L
Waring Rd.
Alvarado Canyon
Del Cerro Blvd...
C1L
Adobe Falls
8
CONFLUENCE
CONFLUENCE
UPPER VALLEY REACH
UPPER VALLEY REACH
GORGE REACH
San Diego State University
Normal Hts.
Legend:
Existing Class 1 Bikeway
Proposed Mult-Use Trail
Existing Connecting Bikeways
Proposed Connecting Bikeways
Proposed Secondary Pedestrian Trail
Recommended Minimum Corridor Width
Community Plan Outline
Waystation
Proposed Trail Overpass/Underpass
Proposed Viewing Platform
Key Site
Green Gateway

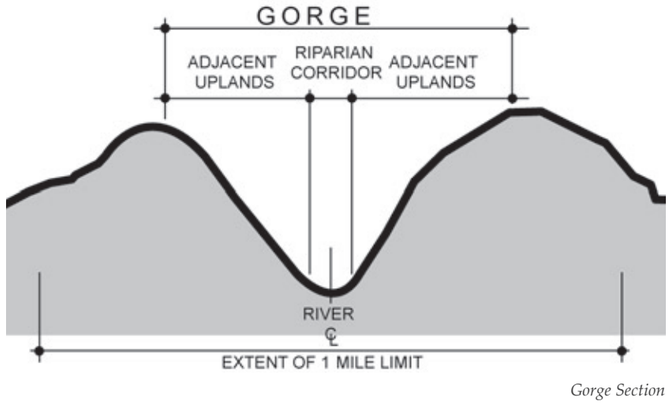
Long Term

KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
C1L	Implement open space identified through Grantville Redevelopment Plans to improve habitat and recreation.	Explore potential to acquire land or establish open space easements to create adequate space to continue San Diego River Park and Trail. If land is acquired, initiate specific development plan for the San Diego River Park and Trail.	●	●	●	
C2L	Create trail connection to Mission San Diego De Alcala and interpretive zone and to Rancho Mission Road to Friar's Road.	Coordinate with the San Diego Bicycle Master Plan and Community Plans to identify specific alignment and establish easement. Explore opportunities with willing land owners to establish public access.			●	●
C3L	Implement trail and open space plans	Prepare specific plan for design of trail alignment and natural open space as land or easement is acquired	●	●		
U1L	Implement potential Grantville Redevelopment Plan to improve trail and habitat connection to Alvarado Canyon.	Prepare specific plan for design of trail alignment, natural open space and daylighting Alvarado Creek	●	●	●	
U2L	Continue to collaborate with Navy planners to integrate Admiral Baker Golf Course with the river to create expanded riparian corridor and habitat and trail connections.	Initiate dialogue with land owners on both sides of river to establish easements or acquire land to create trail and habitat continuity. Coordinate with Navajo Community Plan.	●	●	●	
U3L	Improve open space and trail connection to East Murphy Canyon north of Admiral Baker Golf Course.	Continue dialogue with Navy planners and Superior Mine land owners and planners to identify potential locations.				
U4L	Engage land owners in process to separate stream flow from ponds as land is redeveloped.	Continue dialogue with Navy planners and Superior Mine land owners and planners to identify potential locations.		●	●	
U5L	As Superior Mine redevelops, implement ground work that encouraged plan to focus on river corridor and to create riparian habitat and multi-use trail as component of redevelopment plan.	Continue dialogue with Superior Mine land owners and planners to integrate the San Diego River Park and Trail with proposed development.	●	●	●	●
U6L	If land is acquired, develop improved open space with views and access to ponds as habitat and recreation areas.	Continue dialogue with Superior Mine land owners and planners to integrate the San Diego River Park and Trail with proposed development.	●	●	●	
U7L	Connect soft trail with Tierrasanta neighborhood and potential new park.	Coordinate with Navajo Community Plan and Tierrasanta residents as potential park sites are identified.			●	
U8L	Connect to proposed recreation and open space outside river corridor.	Coordinate with Navajo Community Plan to connect with proposed natural open space area.		●	●	●

Gorge

Intent: Coincident with Mission Trails Regional Park boundaries, the Gorge offers a strong sense of enclosure reinforced by the rising walls of Fortuna Mountain and Cowles Mountain. Mission Trails Regional Park is one of the "jewels" of the San Diego River watershed, and the San Diego River Park offers a means of linking this stunning resource to the area's other principal natural features.

The Gorge in Mission Trails Regional Park



Gorge Section

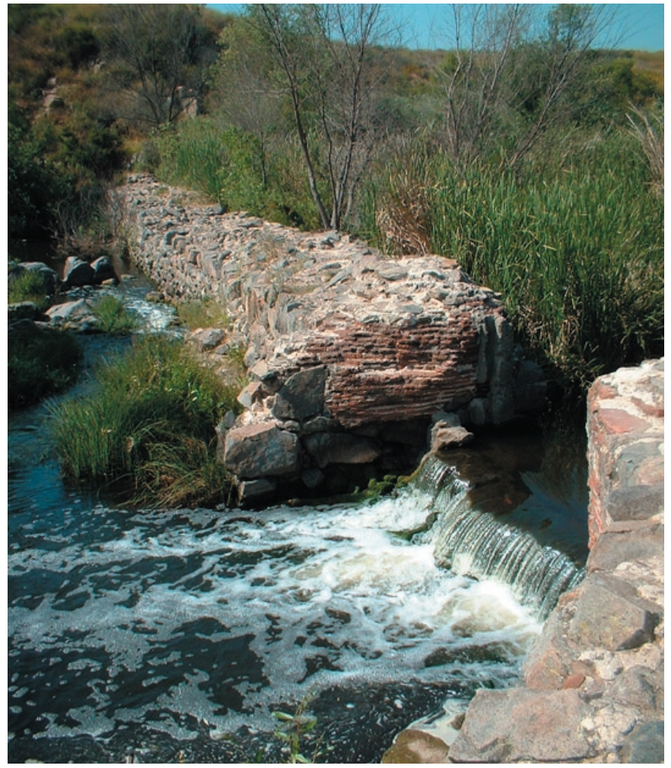
Condition: Established in 1974, Mission Trails Regional Park has preserved the valley's original landscape of sage scrub, chaparral, oak woodland and riparian habitats in exceptional condition. At 5,800 acres, Mission Trails Regional Park is one of the largest urban parks in the nation, and a regional destination for hikers, bikers, and animal watchers. The rich historic layers of the San Diego River valley are revealed in many ways within the park. The Kumeyaay, the Spanish missionaries and settlers, and the 19th and 20th century ranchers and farmers have all left their mark on the land now within the bounds of Mission Trails Regional Park.

East Fortuna Mountain

Recommendations:

- Support the Master Plan of Mission Trails Regional Park.
- Create a trail connection at the west end of the Park when Superior Mine redevelops.

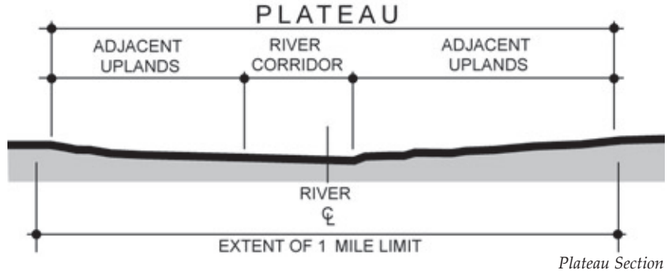
Efforts in the Gorge should align with and support the mission of Mission Trails Regional Park. The goals of the Mission Trails Regional Park Master Development Plan are in harmony with those of the San Diego River Park, and focus on continually improving hydrology and habitat along the length of the river. The San Diego River Park Plan should seek collaborative opportunities with MTRP to further enhance and preserve the conditions already present at the park. That effort should explore the possibility of a soft surface trail linking the river corridor west of the park with Father Junipero Serra Trail and the MTRP Visitor Center. Planning efforts should also consider a paved trail in the Mission Gorge Road right-of-way; this trail would create internal and external connection, within the park and with up-stream communities.



Old Mission Dam

Intent: East of Mission Trails Regional Park, the terrain again opens and reveals expansive views to the hills above Santee and to the distant mountains in the Cleveland National Forest. This expanse offers a sense of release from the narrow, enclosed condition of the river in the Gorge reach. The Plateau is an opportunity to integrate the river experience with adjacent development and the City of Santee. The San Diego River Park should focus on connecting Mission Trails Regional Park with Mast Park and Santee Lakes. These points should be linked by a pedestrian trail system integrated within a larger habitat corridor.

View from SR52 west to the Gorge



Plateau Section

Condition: The river is negatively impacted by a variety of physical constraints. A dike along the southern edge of the Carlton Oaks Golf Course and Highway 52 to the south and west separates the river and the golf course. Heavy infestations of Arundo donax, Brazilian pepper, and fountain grass (Pennisetum sp.) and other exotic species degrade water and vegetative quality. Recreational resources are minimal, but an informal trail exists on the south side of the river for a small portion of this reach; the trail links the Plateau to Environmental Trust land in the City of Santee.

Invasive vegetation management project in progress

Cottonwood Gallery and secondary stream channel on Carelton Oaks Golf Course

Recommendations:

- Create a Trailhead and Gateway to the San Diego River Park.
- Build trail at edge of Carlton Oaks.
- Establish a minimum 500′ wide open space corridor.
- Connect under SR-52.

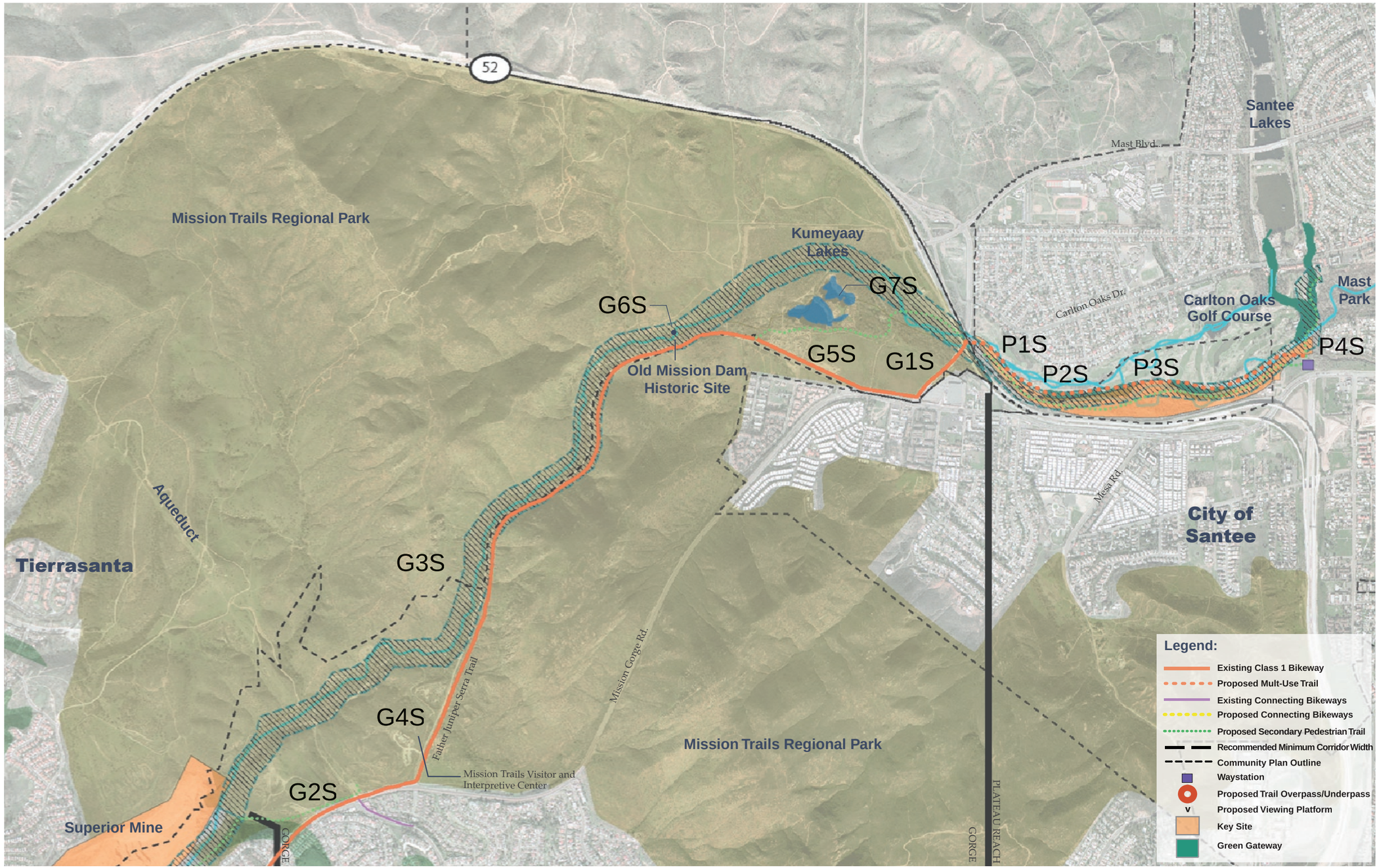
There is potential for the golf course to accommodate a trail on its southern edge near the river; this possibility should be explored when the Carlton Oaks golf course lease comes due for renewal. Land currently not used as golf course should be negotiated out of the lease to be for trail and open space. The long term potential for this area to evolve to become part of the San Diego River Park should also be considered. Redesigning the golf course to be more sensitive to the hydrology of the river and creating habitat corridors are ways in which the course may accommodate multiple user groups.

Key Sites:

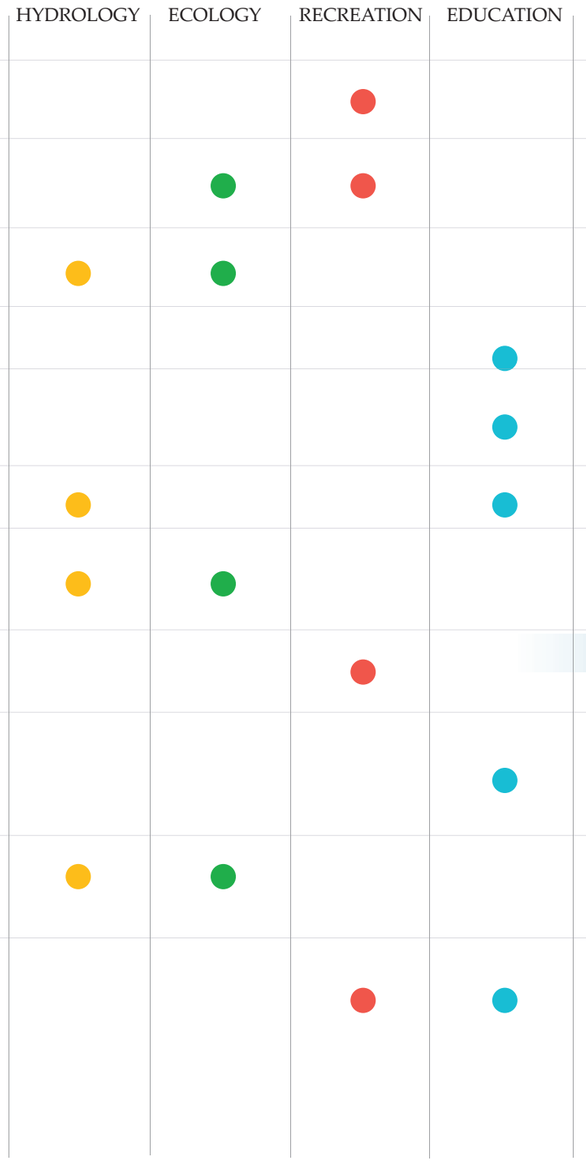
Carlton Oaks Golf Course

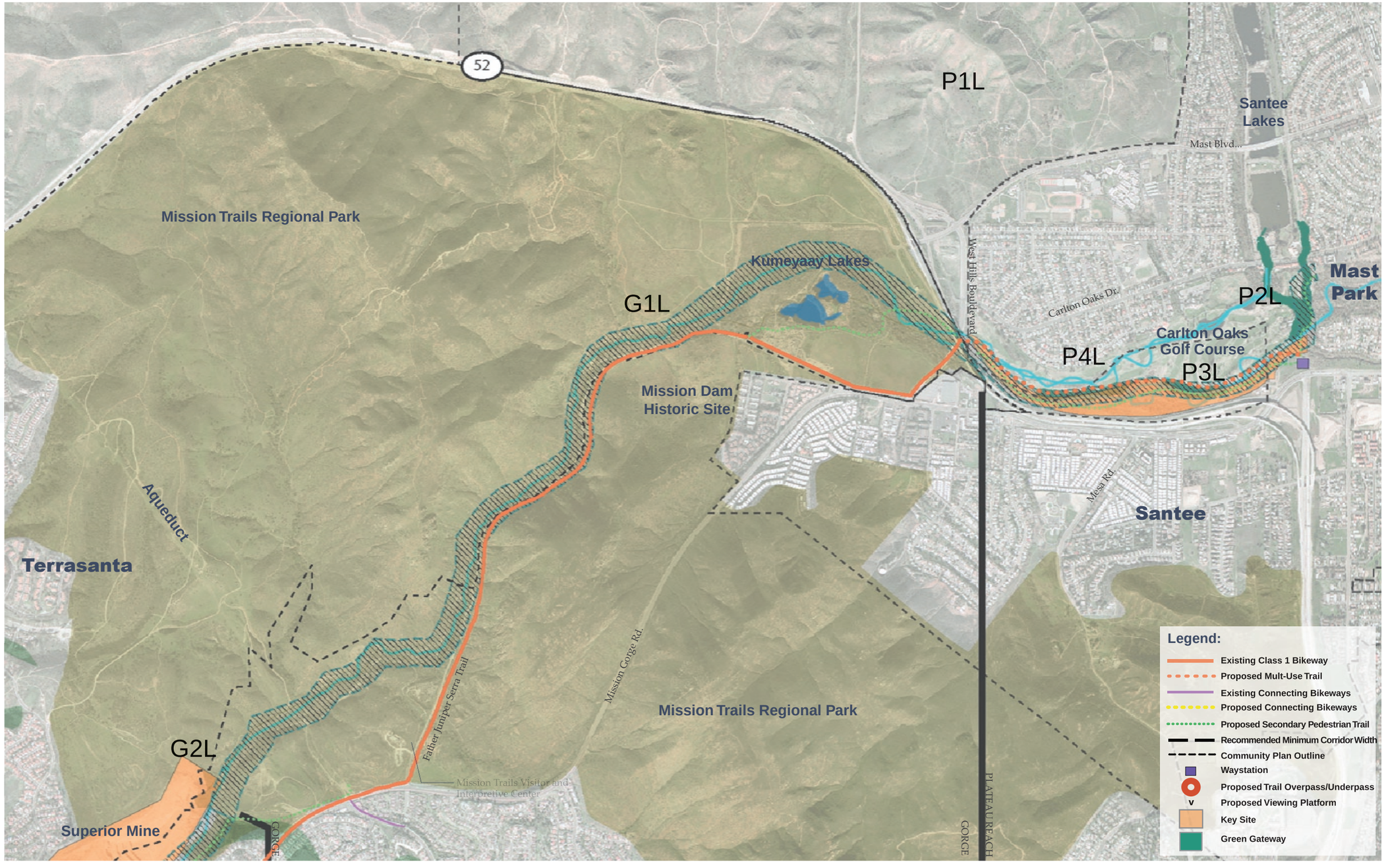
- Critical location for connecting the City of San Diego extent of the San Diego River Park with Santee of upstream segments of the Park.
- River corridor is channelized, narrow and constrained on the south side of the golf course. Open space corridor will provide adequate width to re-contour the river channel. Improved channel should allow increased river length and meander, increased riparian habitat, and run-off buffering at the golf course.
- Minimum 300′ wide open space corridor is recommended, with trail corridor/buffer adjacent to golf course.
- Connection under SR-52 is necessary to achieve continuity of San Diego River Park, and to connect trail with City of Santee's Mast Park.
- Build upon vegetation management projects already underway.

Conceptual San Diego River Park at Carlton Oaks Golf Course



KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS
Short Term			
G1S	Support Mission Trail Regional Park effort to establish a continuous trail system.	Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.	
G2S	Support Mission Trails Regional Park to create multi-use and soft surface trail connections to Father Junipero Serra Trail.	Continue dialogue with Mission Trails Regional Park Master Plan and San Diego Bicycle Master Plan to identify potential alignments within Park and along Mission Gorge Road.	
G3S	Support existing habitat management practices within Mission Trails Regional Park.	Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.	
G4S	Support existing and proposed interpretation of the river and history of the park at Mission Trails Visitor and Interpretative Center	" "	
G5S	Support existing interpretation of the river and the history of valley at campground and Kumeyaay lakes.	" "	
G6S	Support the implementation of the Old Mission Dam Dredging Capital Improvement Project.	" "	
G7S	Support the implementation of the Kumeyaay Lakes Dredging and Berm Restoration Capital Improvement Project.	" "	
P1S	Create San Diego River Park Trail segment.	Initiate dialogue with golf course owners and City of San Diego to identify potential trail alignment adjacent to golf course. Initiate dialogue with Caltrans and golf course owners to identify potential alignment and methods to create trail connection under SR-52 and West Hills Blvd..	
P2S	Create historic interpretation zone.	Install signage, interpretive kiosks and furnishings.	
P3S	Capitalize on existing tree galleries in golf course to create buffer along river and remove exotic vegetation from river corridor.	Initiate dialogue with golf course owners and City of San Diego to explore potential to evolve golf course edge toward native plant species and to develop a vegetation management plan.	
P4S	Create San Diego River Park Trailhead, as a gateway to San Diego at Carlton Oaks Golf Course. Coordinate with City of Santee to create habitat and trail connection to Santee Lakes and to Mast Park.	Initiate dialogue with City of Santee planners, golf course owners and City of San Diego to identify potential trail alignment, vegetation changes, and kiosk/ trailhead location.	




52
P1L
Santee Lakes
Mast Blvd...
Mission Trails Regional Park
Kumeyaay Lakes
G1L
West Hills Boulevard
Carlton Oaks Dr.
P2L
Mast Park
Carlton Oaks Golf Course
P4L
P3L
Mission Dam Historic Site
Aqueduct
Terrasanta
Mesa Rd.
Santee
Father Junipar Serra Trail
Mission Gorge Rd.
Mission Trails Regional Park
G2L
Mission Trails Visitor and Interpretive Center
Superior Mine
GORGE
PLATEAU REACH
GORGE
Legend:
Existing Class 1 Bikeway
Proposed Mult-Use Trail
Existing Connecting Bikeways
Proposed Connecting Bikeways
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Recommended Minimum Corridor Width
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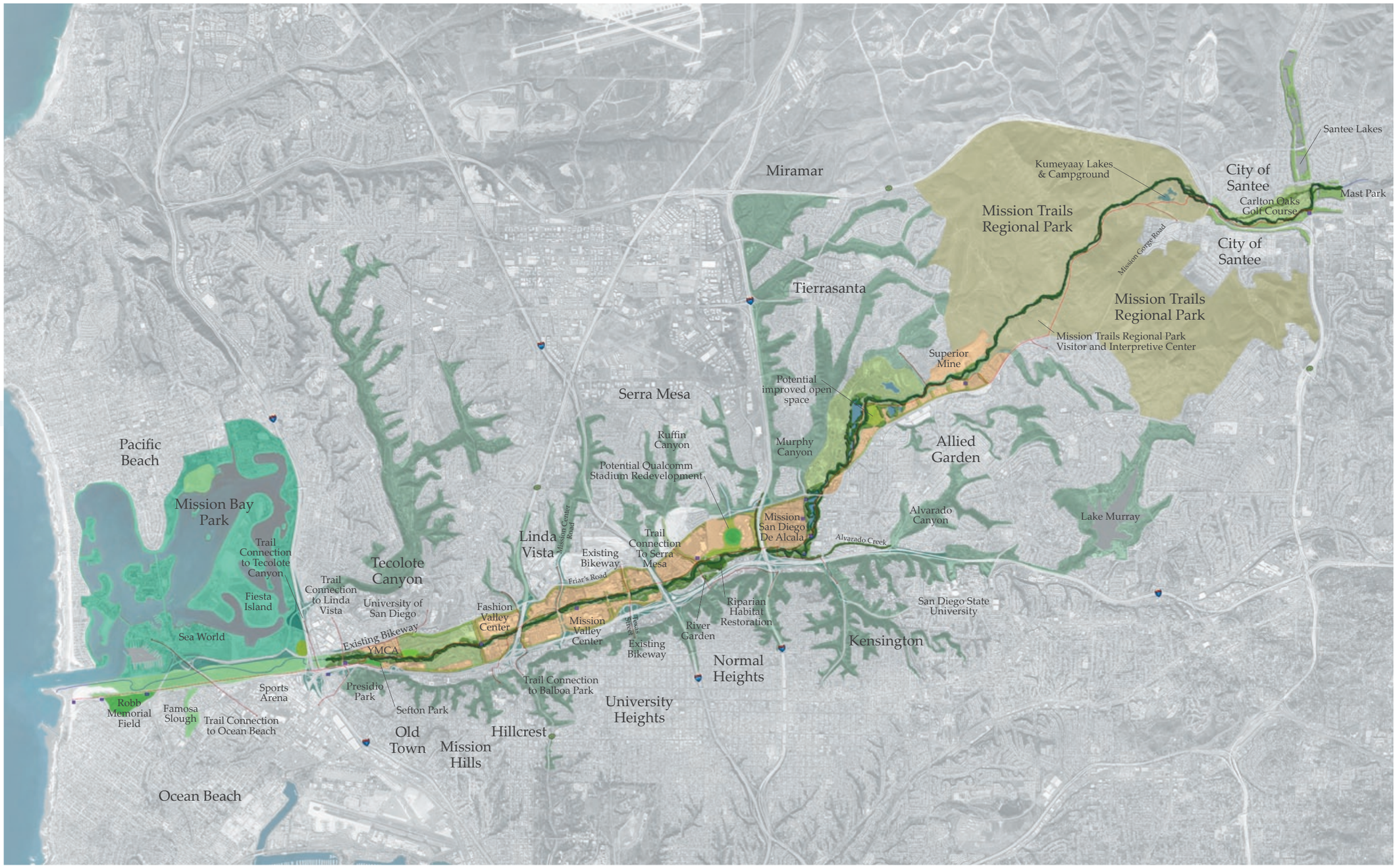
KEYNOTE	RECOMMENDATION	IMPLEMENTATION	BENEFITS			
			HYDROLOGY	ECOLOGY	RECREATION	EDUCATION
Long Term						
G1L	Continue to support maintenance of the Old Mission Dam Dredging. This project may need to reoccur in the future on a regular basis.	Explore the potential to develop a low impact approach to sediment removal that will allow small amounts of sediment to be reintroduced the river system downstream to invigorate sediment transport process.	●			●
G2L	Collaborate with Mission Trails Regional Park to create way-station at edge of Mission Trails Region Park with interpretive information.	Install signage, interpretive kiosk and furnishings with implementation of San Diego River Park Trail segment through Superior Mine.			●	●
P1L	Explore potential to connect with new open space to north and east.	Monitor future action related to land acquisition and explore opportunities to create wildlife habitat and trail linkages.	●	●	●	
P2L	If golf course use were to change in the future, entire site should be preserved for natural open space with a neighborhood scale park as a gateway to the San Diego River Park.	Monitor future action related to potential land use change.	●	●	●	
P3L	Explore potential to realign some golf holes to eliminate dike, recreate stream meander and to incorporate multi-use trail.	Initiate dialogue with City of San Diego and Carleton Oaks Golf Course to establish trail corridor.	●	●	●	●
P4L	Integrate secondary stream channel through golf course with main San Diego River channel and create buffer.	Initiate dialogue with Carleton Oaks Golf Course to identify methods to modify golf course to be more environmentally compatible with river corridor.	●	●		



Illustrative Master Plan

Design Guidelines

Design Guidelines

The following Design Guidelines have their basis in existing City of San Diego documents, including the San Diego Bicycle Master Plan, and the Mission Valley, Navajo, and Tierrasanta Community Plans. The ideas developed through the public process of the Conceptual Plan and of this Draft Master Plan have also been incorporated into the recommendations for the San Diego River Park. Each Guideline category is applicable to each reach of the San Diego River Park, but certain elements described within the Guidelines are modified to specifically respond to the character and issues in each reach.

Buffers

A minimum open space corridor should be preserved for the river. This zone should generally align with the existing river floodway (measured from the average center line of the river channel). This open space zone should provide adequate space for improving river hydrologic function by allowing the channel to be separated from ponds, to be widened to allow for recreating meanders in some locations, and to provide functioning home habitat for a variety of species. The open space corridor should not exactly parallel the river channel itself, and should vary in width beyond the proposed minimums (refer to each reach for specific proposed dimensions), creating a diversity of habitat types within the valley.

A hard paved trail should be located outside of the Open Space Corridor, with a trail buffer corridor in addition to the dimension of the Open Space Corridor. The alignment of the Open Space Corridor should allow for the hard paved trail to occasionally cross over the river and run parallel to it for short distances of less than 1/8 mile. In such instances the minimum Open Space Corridor width should be provided near the river but opposite the trail alignment. Soft surface trails may be located within the Open Space Corridor, but should not be continuous.

The vegetation within the Open Space Corridor should be native species appropriate to the river environment, but should also offer a variety of character. Vegetation should allow views and access to the river, particularly near trails; denser riparian understory areas provide habitat and buffer the river from adjacent uses.

Open Space Corridor, San Diego River, minimum total widths

Estuary:	equal to present dimension of dikes, approximately 500′
Lower Valley:	300′ *or following floodway*
Confluence:	300′
Upper Valley:	500′
Gorge:	500′, *or as exists in Mission Trails Regional Park*
Plateau:	500′

Open Space Corridor, Canyon Tributaries, minimum width

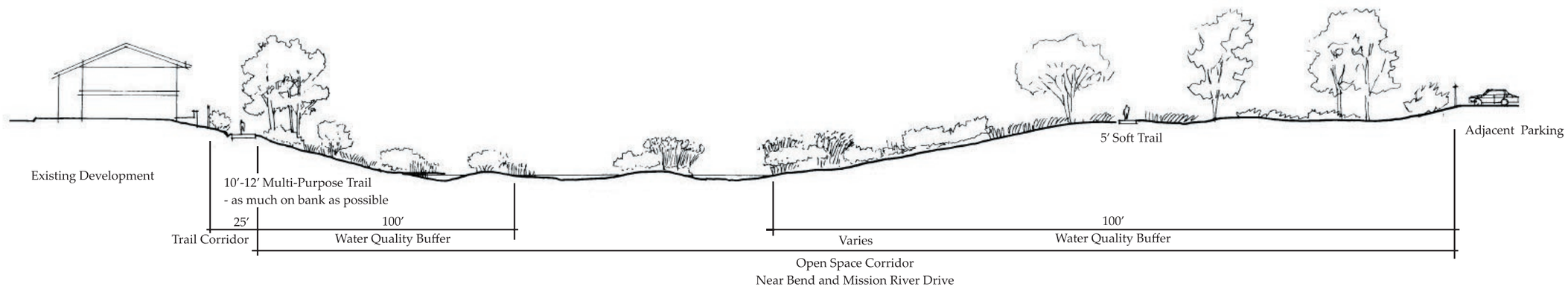
All Reaches:	100′

Trail Corridor, minimum width (in addition to open space corridor)

All Reaches:	25′

Water Quality Buffer, minimum width (within open space corridor)

All Reaches:	100′ (from edge of full stream bank)



Confluence Section

Trail Design

The trail system consists of three primary components: the San Diego River Park Trail, Connecting Trails, and Secondary Pedestrian Trails.

The San Diego River Park Trail is an east-west, primarily hard-paved surface trail that will link the ocean trail system through Mission Valley to the City of Santee trail system in Mast Park. This trail builds upon existing Class 1 Bicycle Trail and Multi-Use Trails within Mission Bay Park and Mission Valley. The San Diego River Park Trail proposes linking segments and grade separated crossings at difficult intersections. Except as noted, the San Diego River Trail is consistent with the San Diego Bicycle Master Plan.

Multi-Use Trails will link to the San Diego River Park Trail with trails and recreation facilities in communities beyond the river valley.

Secondary Pedestrian Trails are proposed within the river valley Open Space Corridor, to encourage a pedestrian experience that allows close engagement with the river and the experience of the valley native landscape. This class of trail permits only pedestrian travel. Trail design standards are consistent with the CalTrans Highway Design Manual and the City of San Diego Street Design Manual.

Class 1 Bicycle Trail:
12 feet wide concrete paved path
Minimum turn radii and grade per standard

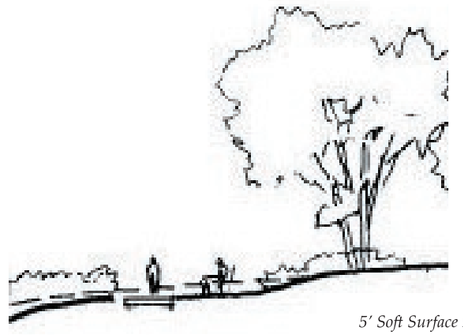
Multi-Use Trail:
8-12 feet wide paved concrete path with 2 foot wide crusher fines shoulders on each side
Minimum radii and grade per standards

Secondary Pedestrian Trail:
5′ wide soft surface trail (crusher fines)
No minimum radii, alignment responds to natural conditions with no disturbance to existing vegetation and minimal grading.

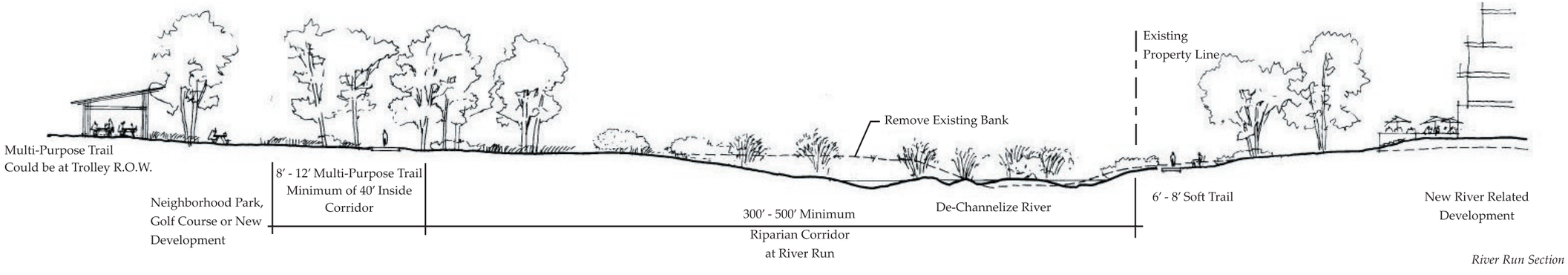
Trail Furnishings and Lighting

Furnishings

8′ - 12′ Mutli-Use Trail



5′ Soft Surface Pedestrian Trail



River Run Section

The San Diego River Park Trail should provide seating, trash receptacles and bicycle racks at all trail heads, corridor access points, waystations and rest areas.

Seating:
- Seating should be durable, comfortable, attractive and securely anchored
- Seating surfaces should be 16-18 inches high with a minimum depth of 16 inches
- Seating should be offset a minimum of 3 feet from the edge of trails; the offset area may vary in surface materials, but should reflect the materials used around it
- Seats with backs should be a dark painted steel, and consistent through out the corridor
- Seats without backs should be dark painted steel with wood or simulated wood seating surface and consistent throughout the corridor
- Where appropriate, low walls of material appropriate to each reach should be provided at seat height in lieu of or in addition to benches

Trash Receptacles:
- Locate to allow convenient access for maintenance
- Locate conveniently near (but not next to) seating, trail intersections and at all access points
- Trash receptacles should relate in appearance and color to other furnishings
- Attach firmly to pavement or a footing to minimize vandalism

Bicycle Racks:
- Locate bicycle racks near access points, rest areas and pedestrian trail intersections
- Bicycle racks should be of "inverted U" type
- Bicycle racks should relate in color to other furnishings

Bike Rack by SiteScapes, Inc.

Lighting

The San Diego River Park Trail will generally not be lighted, except where it engages urban edges. Developed parks that are located within the river corridor should be lighted in a manner that meets or exceeds typical Park and Recreation standards. Where lighting is appropriate and provided, it should be treated consistently throughout the City of San Diego segment of the river corridor, in light source, fixture type, and fixture finish and color. The overall conceptual approach to illuminating the trail should balance safety and security with nighttime visibility and function through light color selection and reduction of glare. The approach should minimize light pollution ("sky-glow") and light trespass, particularly into adjacent habitat and residential areas. Lighting design should identify aspects of the goals of the International Dark Sky Association (IDA) and Illuminating Engineering Society of North America (IESNA) that are appropriate to the San Diego River Park.

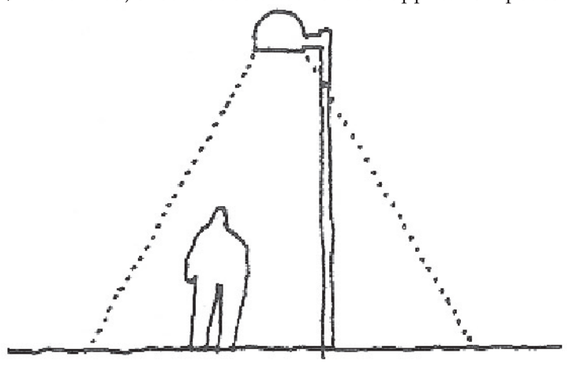
The overall lighting approach, including light source type (color) and fixture types, will be solidified as San Diego River Park planning advances to a more detailed level of design. Lighting design should emphasize uniform, unobtrusive illumination with a subtle emphasis on trail intersections and access points.

Determine light source color

Metal halide (MH) is recommended for its true color rendering; this type of light source does not cast a 'color' over the objects it lights. Reaction time and color recognition are considerably higher under white light sources such as metal halide. In addition, metal halide lighting generally requires lower light levels than other non-white light sources, because of the true color it offers. Transitioning between white and non-white light sources presents concerns regarding safety, function and aesthetics, and should be considered if more than one light source is considered.

Select standard high-performance light fixtures

A fixture palette that allows lighting to respond to adjacent conditions (urban, naturalized) should be selected for each application: pedestrian pole lighting, pedestrian walk lights, step and wall lights, etc. These fixtures may be standard or custom-designed, but should coordinate with each other. Fixtures should create an unobtrusive appearance that allow focus to remain on the Park, rather than the furnishings in it. Round fixtures and round metal poles are recommended for their relative unobtrusiveness in daylight. Bollard-type light fixtures can present significant problems of glare and cut-off, and for this reason are strongly discouraged.



Pole Lights should be full cut-off

In addition to a specific fixture, each application should also have a specified mounting height. To control glare, spill light, and 'sky glow', all fixtures should be rated full cut-off by the Engineering Society of North America (IESNA).

Luminaire reflectors should be faceted rather than hydro-formed, to ensure high reflectivity and high performance control of light distribution patterns. High performance luminaires will require fewer fixtures and less overall energy use.

Material finish and color should be determined and used consistently throughout the City of San Diego section of the San Diego River Park. Finish and color should be subdued, consistent with other San Diego River Park metal work along the corridor, and consistent with City of San Diego Park and Recreation standards for developed parks.

Recommended standards:
- Pedestrian Pole Lights: 12' mounting height
- Pedestrian Walk Wash Lights: "drive-over" style low surface mounted
- Special walk conditions: step and wall mounted

Signage

Three types of signage are anticipated within the San Diego River Park and

Drive over Light by Bega Lighting

along the San Diego River Park Trail. These types include Identity & Interpretive Signage, Directional Signage, and Regulatory Signage.

Identity & Interpretive Signage:

- Consistent graphics and symbols
- Expand as needed to provide additional depth of information
- Consistent mounting height and sign surface material
- Consistent mounting system, based upon standard kiosk
- Establish a poster program to provide public information about the San Diego River Park at all trolley stations near the San Diego River

The signage system should reflect a consistency that links individual signs into a larger system and creates an immediate recognition in the user. Consistent graphics, type styles and signage structure offer this consistency. The City of San Diego Park and Recreation standard kiosk is recommended for San Diego River Park use, offering immediate recognition and connection with the City's other parks.

Identification Signs on River Crossings

In order to raise public awareness of the San Diego River, signs have been installed at all river crossings. This effort should continue to locate signs, where they have not yet been installed, in cooperation and assistance with local government and Caltrans. If funding is not available from these agencies, private funding should be raised. The signs should highlight the presence of the river and include the San Diego River Park logo.

Directional Signage:

- Consistent graphics and symbols
- Consistent detail of information
- Consistent size, mounting height and sign surface material
- Variety of mounting systems, appropriate to location
- Mount on 2" dia. galvanized steel pipe

Regulatory Signage:

- Manual Uniform Traffic Control Device graphic symbology system for standard signs
- Consistent graphics and symbols for San Diego River Park specific signage
- Mounting heights per code where applicable, or consistent with directional signage
- Variety of mounting systems consistent with Directional signage

Entry Kiosk

Kiosks should be installed at key entry points along the San Diego River Trail. Each sign should identify the kiosk as part of the San Diego River Park, and include a location map and appropriate information.

San Diego River Signage

City of San Diego Kiosk

To ensure that the signs will be maintained and updated, as necessary, signs should be sponsored by local community groups or the San Diego River Park Foundation. Initial efforts should concentrate on the bike path on the south side of the river from the Skate Board Park at Robb Field to Pacific Highway. The San Diego River Park Foundation and the Friends of Mission Valley Preserve have received funding to install an additional sign (or possibly two) at Mission Valley Preserve. Incorporate the following materials as detail elements into the standard kiosk design to better integrate the standard kiosk into the distinct character of reach.

Estuary:

- Natural Finished Wood or Recycled Wood product, Bleached

Lower Valley:

- Painted or Galvanized Steel in Urban Locations
- Natural Finished Wood or Recycled Wood product, similar to kiosks

Confluence and Upper Valley:

- Natural Finished Wood or Recycled Wood product, similar to kiosks

Gorge:

- Wood to Match Mission Trails Regional Park system
- Sandstone where applicable

Plateau:

- Natural Finished Wood, similar to kiosks
- Painted or Galvanized Steel in Urban Locations

Maintenance

Maintenance is essential to the long term success of the San Diego

River Park. Visible, ongoing maintenance activities demonstrate a high degree of care and ownership, underlining a level of attention that discourages vandalism and increases security. Maintenance includes day-to-day activities such as trash pick-up, landscape care, habitat management, and repair of damaged furnishings such as trash containers, bicycle racks and benches, and event-responsive activities such as flood damage repair.

It is anticipated that public agencies will provide maintenance activities on portions of the river corridor that are within their ownership. Land in private ownership will require alternative approaches, such as assessment districts, donations from adjacent development and volunteer efforts. One maintenance assessment district, the First San Diego River Improvement Project (FSDRIP) already exists in the river valley. FSDRIP funds maintenance through assessment of adjacent properties within the district boundaries. This mechanism may provide a model for other parts of the valley to fund ongoing maintenance of the river, trails, and San Diego River Park furnishings.

Volunteers are another key component of an overall maintenance strategy for the San Diego River Park. The San Diego River Park Foundation has spearheaded many volunteer efforts throughout the river corridor to restore, enhance and maintain the river corridor. Such volunteers are a key component of an overall maintenance strategy for the San Diego River Park, and will require ongoing coordination by public agencies and volunteer efforts. Developing a comprehensive maintenance program, including potential funding mechanisms, should be a part of the development each implementation project.

Sustainable Design

Sustainability is vital to the future health of the San Diego River. Incorporating sustainable design into all new public and private development along the river will go a long way in ensuring the future health and vitality of the river. Sustainable practices such as; capturing and treating run-off on-site prior to releasing it into the river system, reducing surface parking and paved surface areas, green architecture -- the use of recycled and local materials in all constrcution--, and limiting irrigation in landscaping and parks through xeric planting schemes, should be encouraged.

Maintenance volunteers in Commons Park; Denver, Colorado

Plant Species

Over time, all exotic vegetation should be eliminated from the Open Space Corridor. Re-vegetation should use only native plant species.

Three types of planting groups are proposed to establish a hierarchy of vegetation from a pure native community to a hybrid community appropriate for developed areas. These three groups include a Native Habitat Species List, a Buffer Species List, and an Urban Species List. A complete listing of each group can be found in the Appendices.

The Native Habitat Species List is designed for the open space corridor, and includes mixed willow woodland and chaparral/coastal sage scrub species. The Buffer Species List is appropriate for the zone between the open space corridor and bordering development; this selection of plants may also be used in the trail corridor. The Buffer Species List includes riparian and chaparral transition species. The Urban Species List should be used in developed areas, including streetscapes. This group focuses on native species, but also incorporates appropriate non-native ornamentals for shade, diversity and interest.

Implementation

Implementation Priorities

For the recommendations described on the previous pages to become a reality, clear direction for the next step toward implementation is essential. The implementation strategy identifies key steps to be taken early on, and must be flexible enough to accommodate an extended timeline to achieve development of the improvements. A phased approach will allow both flexibility and prioritization of implementation.

Phasing

Proposed implementation consists of two phases. This approach is intended to be conceptual, as many of the elements cannot be implemented until specific projects are further defined and approved. Several factors influence and determine phasing, including relative importance, ability to proceed and current ownership of land.

Phase One is intended identifies steps that may be taken immediately. This phase builds upon existing momentum to create visible change within the river corridor. Phase One also identifies priority sites where action should be taken in the near term, due to development pressures or the long lead time necessary to initiate change. The reach-specific Short Term Recommendations identified earlier in this document provide further information on more immediate actions.

Phase Two addresses elements of the Park that are likely to require substantial funding and/or land acquisition to implement; many these projects will also require significant physical infrastructure improvements. Phase Two also includes elements that will require substantial study to confirm the feasibility of the recommended action.

Phase One

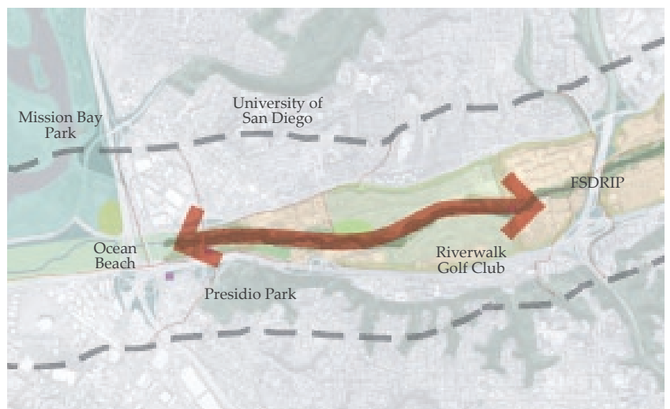
Phase One includes some of the most immediate and identifiable actions toward developing the San Diego River Park and Trail. This effort focuses on developing specific projects on publicly owned land, initiating discussions toward acquisition of new lands, and creating open space easements on key sites held in private ownership. Phase One projects are organized into the following categories: Trail Development, Park Development, Habitat/Natural Area Enhancement, Water Quality Improvement, and Land Acquisition.

Trail Development

Establishing a continuous trail within the river corridor from the ocean to the City of Santee is a critical component of the Park. This trail is the best means for people to access and learn about the river, the habitat it provides and the vision of the San Diego River Park. This phase also seeks to create a distinct, unique identity for the San Diego River Park and the San Diego River Park Trail.

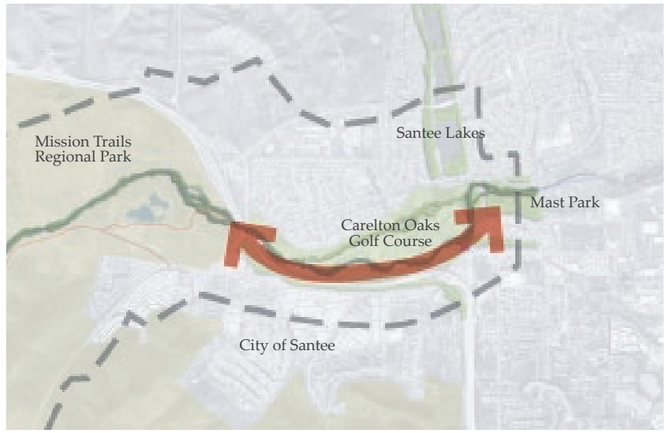
Construct trail segment linking Ocean Beach Bicycle Path with existing First San Diego River Improvement Project (FSDRIP) Bicycle Path.

- Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan
- Key connection between Mission Bay and Mission Valley hotels
- Initiate specific study of alignment through Mission Valley Preserve following trolley bridge alignment and connect to existing trailhead
- Initiate dialogue with land owners to negotiate trail easement following trolley alignment through Riverwalk Golf Club



Design and construct trail segment from Mission Trails Regional Park to Mast Park.

- Coordinate with San Diego Bicycle Master Plan and Navajo Community Plan
- Negotiate with Carlton Oaks Golf Course to set aside adequate land area for development of bicycle trail between golf course and the river
- Coordinate with Mission Trails Regional Park to identify alignment connecting Father Junipero Serra Trail with proposed Carlton Oaks link
- Prepare specific study to detail trail alignment and identify means of crossing SR-52 to establish connection to Father Junipero Serra Trail. Develop a hard surface Multi-Use Path adjacent to golf course, and a soft surface Secondary Recreation Trail within Mission Trails Regional Park.

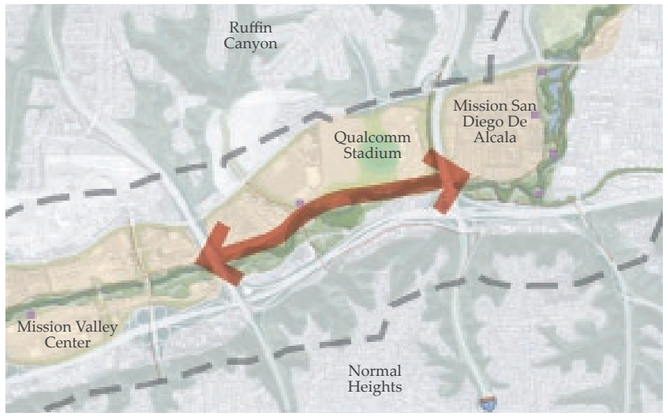


As Qualcomm Stadium redevelops, construct trail from FSDRP to I-15.

- Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan
- Initiate specific study of alignment from FSDRP to I-805 in the short term
- As Qualcomm redevelopment plans move forward, integrate trail design effort to identify specific alignment in coordination with park and open space development. Include link north to Friar's Road and Murphy Canyon.

Develop a signage system identifying the San Diego River Park Trail.

- Build upon existing trails. Where historically or locally important trail names exist, incorporate existing name as "part of the San Diego River Trail".
- Install signage at all trail intersections, access points and road crossings
- Graphics should be similar to, and incorporate design elements of, the San Diego River identification signs



Park Development

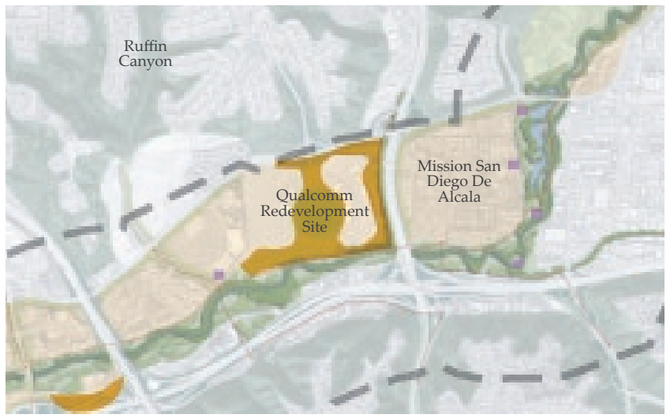
With the exception of Qualcomm Stadium, land in preferred park locations and with high potential for park development is in private ownership. As the stadium redevelops, land for open space and park uses should be set aside adjacent to the river, adjacent to I-15 and internal to the site. The Lower Valley Reach Recommendations treat this topic in further detail.

Develop conceptual plan for passive and natural park at Qualcomm Stadium.

- Coordinate with Qualcomm Stadium redevelopment plans to include active park uses within the redevelopment (i.e. on the existing stadium site) with passive uses closer to the trolley alignment and primarily natural open space between the trolley and the river.

Begin dialogue with landowners to negotiate acquisition of land within the corridor.

- Seek a 7 to 15-acre site within the proposed River Walk redevelopment of River Run Golf Course for a neighborhood park serving the development and adjacent neighborhoods
- Seek a twenty-acre site near Admiral Baker Golf Course and Superior Mine to serve adjacent neighborhoods and to be a major identity site for the San Diego River Park



Habitat/Natural Area Enhancement

Enhancement of wildlife habitat is closely associated with park development, open space and trail easements and the removal of exotic plant species. A corridor-wide vegetation management approach will minimize seed sources and help to control expansion of non-natives. Increasing awareness of the impact of non-native species is critical to expanding support for implementation of vegetation management plans.

Coordinate with Ongoing Development Plans to integrate the San Diego River Park into these Plans.

- Superior Mine
- River Walk

Incorporate vegetation management issues into interpretive programs throughout the corridor.

- Coordinate with Mission Bay and Mission Trails Regional Park interpretive systems to include information regarding the impacts of invasive non-native species

Continue to remove exotic vegetation and replant with native species

- Support implementation of the San Diego River Natural Resources Management Plan
- Coordinate resources to support the San Diego River Park Foundation efforts to implement vegetation management plans and removal of exotic vegetation

Coordinate a specific plan within Mission Valley Preserve to improve riparian and upland native plant environments.

- Support existing actions already underway with Mission Valley Preserve
- Prepare detailed plan to coordinate San Diego River Park Trail alignment, wildlife habitat and expanded interpretation within the Mission Valley Preserve

Develop coordinated vegetation management plans with private landowners.

- Develop management plan that can be provided to private land owners throughout the corridor to be incorporated into their landscape maintenance programs
- Provide support to private land owners to implement vegetation management plans

Water Quality and Hydraulic Improvement

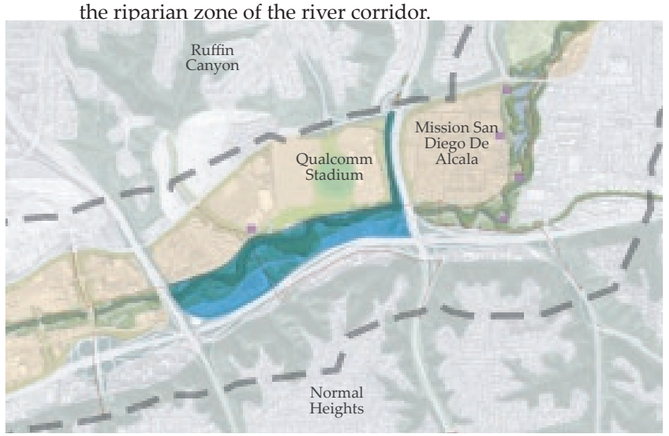
Improving water quality and hydraulic behavior of the river is closely associated with the development of parks and open space. As land within the corridor redevelops or is acquired for public use, specific river improvements can be designed and implemented.

Develop specific study within Mission Valley Preserve to improve river hydraulics.

- Coordinate with Mission Valley Preserve to re-contour the river channel as a broad corridor to lengthen the river, reintroduce meander and braiding, and increasing the riparian zone of the river.

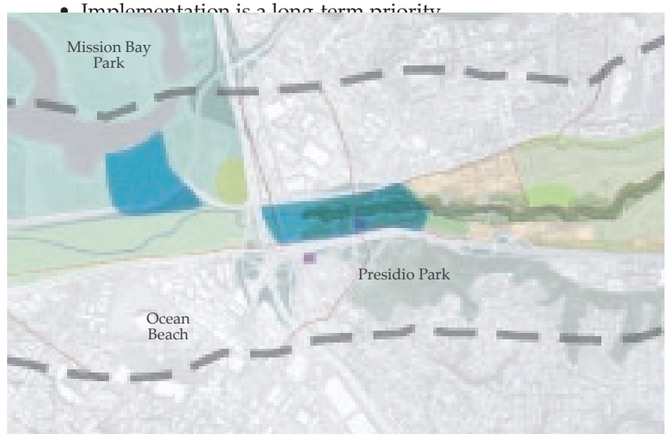
As Qualcomm Stadium redevelops, improve river channel through proposed park.

- Coordinate with Qualcomm redevelopment and San Diego River Natural Resources Master Plan.
- Incorporate channel improvements in park and open space design. Re-contour the river channel as a broad corridor to increase the river length, reintroduce meander, and increase the riparian zone of the river corridor.



Coordinate with Mission Bay and Landfill study to prepare study to connect the San Diego River with Mission Bay.

- For over a century, a dike has separated the river from its historic delta, Mission Bay. Removing the dike and recreating an estuarine environment will reconnect the river with its delta. This reconnection also has the potential to increase water movement within Mission Bay. The feasibility of this change must be understood in terms of its impact on water quality of the river and the bay, the effect of the landfill in terms of depth of cover and water quality, and cost. The expanded estuary would necessitate the construction of bridges on Mission Bay Drive.
- Implementation is a long term priority.



Land Acquisition

The majority of the land between Mission Bay Park and Mission Trails Regional Park is privately owned, making open space easements and land acquisition a priority throughout the river corridor. The intent of the Master Plan is to work with interested and willing land owners to establish the continuity and connectivity that is essential to the San Diego River Park. The Plan identifies several key sites for parks and open space, as well as a general alignment of trails and open space throughout the river corridor. Much of this land is in the floodway and offers limited development potential, such that an easement or purchase could benefit both parties. The Master Plan is also flexible enough to accommodate opportunities to acquire parcels beyond those identified as open space priorities.

Phase Two

Phase Two identifies longer term actions necessary to develop the San Diego River Park and Trail. This section outlines actions that require further study, may be long term in development due to external factors or long lead times. The Long-Term Recommendations matrices contained in each reach section contain additional information and supporting actions.

Coordinate with implementation of development to integrate the San Diego River Park into these planning efforts.

Superior Mine

While ongoing mining operations may for as long as twenty years, increased property values, possibly due to the amenity offered by an adjacent San Diego River Park, may encourage earlier redevelopment of this site. Preliminary planning efforts are studying the economic and physical potential of the site. Preliminary planning efforts have identified this location as a potential technology-oriented office/ manufacturing site; this use would create a large number of jobs within the surrounding community, a benefit that has garnered public support for such redevelopment. Residential development has met with less favor, due in large part to concerns regarding increased vehicle traffic.

The Superior Mine planning process should be closely monitored and coordinated with the goals of the San Diego River Park Master Plan.

River Walk Golf Club

The Riverwalk Golf Club has been under consideration for redevelopment for many years. The Levi-Cushman Specific Plan was approved in 1987, and although some portions of the plan have been implemented, it is likely that changing economic and environmental conditions will require significant modifications to the plan prior to full implementation. The site is important to creating a continuous San Diego River Park Trail, and for protecting water quality and expanding habitat.

The site's challenge is to formulate an approach that accommodates development desires on the part of the land owners, while also protecting the river and adjacent habitat and providing recreational trail access. Coordination with the developers and land owners should begin in the short term, with the goal of finding a long-term solution that meets both of these needs.

Coordinate with Mission Trails Regional Park to implement trail segment connecting Father Junipero Serra Trail with new trail in Superior Mine redevelopment.

- Prepare specific design of soft surface Pedestrian Trail segment in MTRP.
- Coordinate construction with MTRP.

Future Steps

Environmental Compliance Requirements

The San Diego River Park Master Plan proposes a planning framework that includes guidelines and principles for future planning efforts, as well as an enumeration of necessary studies. The master plan also identifies specific actions and projects that will ultimately lead to a recreation and habitat corridor paralleling the length of the river. These projects are both short and long-term, including immediately implementable actions as well as projects reaching into future decades.

The California Environmental Quality Act (CEQA) requires that a lead agency, the City of San Diego in this case, comply with this Act when considering a discretionary action such as adopting this Plan and amending the City's General Plan. The basic purpose of CEQA is:

1. To inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. Identify ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds that changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The majority of elements proposed in the Plan are presented at a conceptual level. The most appropriate CEQA document that could be prepared for the Plan is a Programmatic Environmental Impact Report (PEIR). The PEIR provides the City with the flexibility to analyze the potential impacts of Plan components that are conceptual and those that are ready to be implemented. The elements of the Plan that are developed to a more specific level of detail include:

- Bike/multi-use trails, various locations
- Way stations, multiple park entry points
- Cultural interpretation stations/kiosks
- Redevelopment of Qualcomm
- Redevelopment of Superior Mine

Economic Analysis

It is essential that the existing and potential economic value of properties within the valley be understood. Analysis of the San Diego River Park economic issues should study the project on several levels, including the cost to acquire land and the cost to develop the park itself. In particular, analysis should identify parcels that are undervalued, assess their true economic value and determine their highest and best use. The study should also project how the San Diego River Park may potentially affect property values and return value to the city.

The analysis should address the following:

- direct costs of developing the San Diego River Park and Trail
- direct return benefit to the City
- anticipated benefit of private reinvestment

The analysis should further estimate the secondary economic benefits of developing the San Diego River Park. This study should examine the additional activity the Park will generate, the number of people who will use the Park, and what those users will purchase while in the river valley.

Scientific Based Master Plan

The San Diego River Park presents the opportunity for the river and the river corridor to serve as a study area for local and regional science institutions. Scientific undertakings often depend upon shared infrastructure and shared knowledge to development new courses of study, and the river presents the potential for ongoing, multi-institutional programs.

The Scripps Institution of Oceanography, with the support of the San Diego River Park Foundation, may be the right organization to lead a multi-institutional science task force. This task force would be charged with developing a framework plan for a science-based decision support system for the San Diego River. The framework plan would structure a multi-disciplinary study program and the basic infrastructure necessary to initiate it. Potential areas of study might include hydrology (water quality, seasonal flow patterns, identify sources of flow, modeling of potential changes to the river course), biology (vegetative and wildlife correlations, wildlife movement, modeling of how these patterns change with the implementation of the San Diego River Park) and climate (wind and temperature patterns and correlation with changes within the valley), to name a few.

The scientific infrastructure might include monitoring instruments and wireless transmission equipment for real time and off-site access to information. Real-time information could also be made available to San Diego River Park users, so that visitors could understand and interpret conditions as they experience them.

A joint study program such as that descried above creates the opportunity to engage the wealth of scientific knowledge in the San Diego area in the rejuvenation of the river corridor. These cooperative efforts combine resources toward a whole that is greater than what individual institutions might achieve on their own. A broad scientific program can create a record of the existing condition of the river corridor, and track water quality and habitat improvements as the San Diego River Park becomes reality.

Feasibility Study to Reconnect the San Diego River with Mission Bay Park

The San Diego River historically terminated at the Pacific Ocean with a tidal estuary delta that stretched from Mission Bay to San Diego Bay. The location of the main channel mouth varied as conditions in the delta changed, with the river's mouth shifting between San Diego Bay, False Bay (now Mission Bay), and the Pacific Ocean itself. Today, the channelization of the San Diego River has restricted movement of the mouth and reduced the tidal estuary to only a fraction of its former size. Channelization also severely limits opportunities for continued renewal of the tidal estuary.

This Master Plan recommends a feasibility study to evaluate the reconnection of the San Diego River and Mission Bay.

Potential benefits of reconnection:

- Increased water circulation within Mission Bay
- Increased opportunities to expand critical estuary habitat
- Increased opportunities to expand biodiversity and biomass
- Increased recreational opportunities via trails and interpretive areas

Potential impacts of reconnection:

- Increased sedimentation rates within Mission Bay
- Increased contribution of pollutants to Mission Bay from the river
- Lack of consistency with Mission Bay Park Master Plan

The feasibility study must address these key issues. The study should include a detailed hydrologic/hydraulic simulation of various connections as well as a simulation of anticipated sedimentation and water quality change. A hydrologic circulation model of Mission Bay should be constructed in order to evaluate inputs from a new connection. The study should also include estimates of habitat increases and suggested methodologies of restoration actions.

Appendices