7. IMPLEMENTATION

Arroyo Seco Watershed

Consensus and local leadership is attracting funding partners for implementation of this 20-year Plan.

7.1 Introduction

The purpose of this Section is to:

- Describe the relationship between local plans and the IRWMP;
- Identify governance options for implementation of the IRWMP;
- Describe procedures for coordination of IRWMP activities with state and federal agencies;
- Describe funding options for IRWMP implementation; and
- Identify next steps and a schedule of future activities for the IRWMP process.

7.2 Framework for Implementation

To support development of this Plan, stakeholders have identified 1,521 projects and project concepts as of October 31, 2006. As funding opportunities arise in the future, the projects in the project database can be prioritized, funded, and implemented, and thereby make progress towards meeting the objectives and planning targets articulated in the Plan. This "bottom-up" approach relies upon agencies, jurisdictions, organizations, and individuals to identify and submit projects. As discussed more fully in the Section 5 (Project Identification and Integration), based on a review of the projects in the database, many cities and agencies in the Region have yet to identify projects, many of the projects included in the database need additional refinement, and many of the projects could benefit from integration, by combining similar projects into regional projects, or by adding additional features so those projects provide multiple benefits.

Even with more than 1,500 stakeholder-identified projects and project concepts, it appears uncertain if these projects will generate sufficient benefits to achieve the planning targets. Thus, identification of additional projects may be required. The Regional Planning Tools described in Section 5 provide an analytical framework for a "top-down" approach that can be used to develop customized project scenarios for jurisdictions, watersheds, or Subregions, and thereby identify projects with a Regional focus which incorporate multiple water management strategies and maximize project benefits.

It should be noted that the concepts of project integration or the identification of projects via a "top-down" process should not be interpreted to suggest a loss of control by individual jurisdictions with respect to the identification or implementation of projects. The IRMWP process is not intended to be prescriptive or to supersede the authority of individual jurisdictions or agencies.

Existing Plans and Programs

A substantial number of agencies and jurisdictions are responsible for, or participate in, the development of plans, programs, and regulations that are relevant to the IRWMP. Table 7-1 identifies some of the agencies and jurisdictions that are involved in planning within the Region for each water management strategy identified in Section 4

PLANNING SCALES

Figure 7-1. Emerald Necklace and Duck Farm. The Duck Farm Project is one componet of the Emerald Necklace. These projects are examples of planning being coordinated at both site and Regional scales.

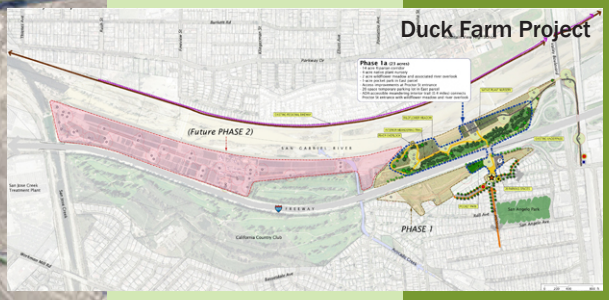


Table 7-1. Agencies and Jurisdictions Involved in Planning in IRWMP Region

Water Management Strategy	Federal	State	Local/Regional
Desalination	Bureau of Reclamation	Department of Water Resources	Some wholesale and retail water agencies
Groundwater Management and Conjunctive Use		Department of Health Services, Department of Water Resources, State & Regional Water Resources Control Boards	Wholesale and Retail Water Agencies, San Gabriel Basin Water Quality Authority, Cities, Pumpers
Import Water	Bureau of Reclamation	Department of Water Resources, State Water Resources Control Board	Some Wholesale Water Agencies
Improve and Protect Water Quality	U.S. Environmental Protection Agency	Department of Health Services, Water Resources, State & Regional Water Resources Control Boards	Cities, Water Agencies, Sanitation Districts, Los Angeles, Orange and Ventura Counties
Surface Storage	Bureau of Reclamation, U.S. Army Corps of Engineers	Department of Water Resources	Some cities and Los Angeles, Orange and Ventura County Flood Control Districts
Water Conservation	Bureau of Reclamation	Department of Water Resources, State & Regional Water Resources Control Boards	Cities, Wholesale and Retail Water Agencies
Water Recycling	U.S. Environmental Protection Agency	Cities and Los Angeles, Orange and Ventura County Flood Control Districts	Sanitation Districts, Water Agencies, and Cities with Water Agencies and/or, Sanitation Departments
Water Supply Reliability		Department of Water Resources, State Water Resources Control Board	Wholesale and Retail Water Agencies
Water Transfers	Bureau of Reclamation	Department of Water Resources, State Water Resources Control Board	Some Wholesale and Retail Water Agencies
Nonpoint Source (NPS) Pollution Control	U.S. Environmental Protection Agency	Department of Water Resources, State & Regional Water Resources Control Boards	Cities, Los Angeles, Orange and Ventura Counties, Watershed and Environmental Groups
Water and Wastewater Treatment	U.S. Environmental Protection Agency	Department of Water Resources, State & Regional Water Resources Control Boards	Cities with Water Agencies, Wholesale and Retail Water Agencies, Sanitation Agencies, San Gabriel Basin Water Quality Authority
Stormwater Capture and Management	Bureau of Reclamation, U.S. Army Corps of Engineers	Department of Water Resources, State & Regional Water Resources Control Boards	Cities and Los Angeles, Orange and Ventura County Flood Control Districts

Table 7-1. Agencies and Jurisdictions Involved in Planning in IRWMP Region (Continued)

	Water Management Strategy	Federal	State	Local/Regional
	Restore Ecosystems	Fish and Wildlife Service, Forest Service, National Park Service, National Resources Conservation Service	Baldwin Hills Conservancy, Coastal Conservancy, Fish and Game, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, State Parks	Some Cities and Los Angeles, Orange and Ventura Counties
	Environmental and Habitat Protection and Improvement	U.S. Army Corps of Engineers, Fish and Wildlife Service, Forest Service, National Park Service, National Resources Conservation Service	Baldwin Hills Conservancy, Coastal Conservancy, Fish and Game, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, Santa Monica Bay Restoration Commission, State Parks	Cities and Los Angeles, Orange and Ventura Counties
	Wetlands Enhancement and Creation	U.S. Army Corps of Engineers, Fish and Wildlife Service, Forest Service, National Park Service, National Resources Conservation Service	Fish and Game, State Parks, Baldwin Hills Conservancy, Coastal Conservancy, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy	Some cities, Los Angeles, Orange and Ventura Counties, Southern California Wetlands Recovery Project
	Recreation and Public Access	National Park Service	State Parks	Cities and Los Angeles, Orange and Ventura Counties
	Asset Management	Bureau of Reclamation, U.S. Army Corps of Engineers	Department of water Resources	Some wholesale and retail water agencies
	Land Use Planning			Cities and Los Angeles, Orange and Ventura Counties
	Integrated Planning	U.S. Army Corps of Engineers	Department of Water Resources, State & Regional Water Resources Control Boards	Some cities, Water Agencies, and Los Angeles, Orange and Ventura Counties
	Watershed Planning	U.S. Army Corps of Engineers, National Park Service	Baldwin Hills Conservancy, Coastal Conservancy, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy	Some Cities and Los Angeles, Orange and Ventura Counties, Environmental and Watershed Groups, Sanitation Angencies

(Regional Water Resource Management). This table suggests that substantial effort will be required to assure cross-agency coordination for the development of Regional plans and projects for individual water management strategies or that incorporate multiple water management strategies.

As the IRWMP proposes the integration of these various water management strategies, instead of focusing on individual water management strategies, a broader form of coordination is appropriate. Table 7-2 summarizes the agencies and jurisdictions involved in planning (from Table 7-1), for the

Table 7-2. Summary of Agencies, Jurisdictions and Organizations Involved in Planning in IRWMP Region

Agencies and Entities	Water Supply	Water Quality	Open Space, Habitat, and Parkland
Federal Agencies	Bureau of Reclamation	U.S. Army Corps of Engineers	Fish and Wildlife Service, Forest Service, National Park Service, National Resources Conservation Service
State Agencies	Water Resources Control Board, Water Resources	Health Services, Water Resources Control Board, Water Resources	Fish and Game, State Parks
State Conservancies and Commissions	Not Applicable	Santa Monica Bay Restoration Commission	Baldwin Hills Conservancy, Coastal Conservancy, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, Santa Monica Bay Restoration Commission, Santa Monica Mountains Conservancy
Regional Entities	Metropolitan Water District of Southern California	Southern California Association of Governments	Southern California Association of Governments, Southern California Wetlands Recovery Project
County Departments	Los Angeles, Orange, and Ventura Counties	Los Angeles, Orange, and Ventura Counties	Los Angeles, Orange and Ventura Counties
Special Districts	County Sanitation Districts of Los Angeles County, Orange County Sanitation District, Water Replenishment District of Southern California	County Sanitation Districts of Los Angeles County, Orange County Sanitation District	Los Angeles County Regional Park and Open Space District
Water Agencies	Retail and Wholesale Water Agencies, Cities with Water Departments	Wholesale and Retail Water Agencies, San Gabriel Basin Water Quality Authority	Some water agencies
Cities	Cities with Water and/or Sanitation Departments	All cities	All cities
Other Organizations	Southeast Water Coalition	Watershed and Environmental Groups, Councils of Government	Watershed, Open Space and Environmental Groups

general categories of water supply, water quality, and habitat/open space, and includes other relevant organizations and entities, such as Regional agencies and non-governmental organizations.

Typical Planning Scales

Most jurisdictions and agencies develop plans and programs within their jurisdictional boundaries, consistent with their statutory responsibilities, although in the past decade, planning at the watershed scale has become more common in the Region. For some entities with large jurisdictional boundaries (e.g., state and federal agencies and state conservancies), planning is often at a regional scale, which can extend beyond the IRWMP Region, as shown in Table 7-3, which depicts the typical planning scales for most agencies, jurisdictions, and entities in the Region. Thus, for most local agencies and jurisdictions, participation in Regional planning efforts (such as this Plan) requires them to work beyond their typical planning scale.

Relationship to Local Planning

Although the IRWMP establishes broad objectives and planning targets for the entire Region, the Leadership Committee the IRWMP cannot feasibly assume responsibility for meeting all of the objectives and targets. Thus, projects and programs implemented by individual agencies and jurisdictions will likely remain the primary vehicle to achieve the Plan's objectives and targets. Many agencies and jurisdictions increasingly acknowledge the value of collaboration in the planning, design, implementation, funding, monitoring and maintenance of integrated projects. Implementation of the IRWMP supports development of integrated projects, provides an over-arching framework that can support planning by individual agencies and jurisdictions; and fosters integrated planning for those issues that could benefit from a Regional approach.

Over 200 plans and studies related to water resource, watershed, and open space management have been identified in the TMs that informed development of the Plan. Thus, the IRWMP has been developed from and is consistent with local planning efforts in the region, as discussed below.

General Plans. Plans of the counties and cities that comprise the Region reflect local planning needs and issues. General Plans express the goals, actions and policies in a number of areas, including land use and water management. The General Plan of Los Angeles County (which covers the majority of the Region) specifically calls for a number of policies directly related to IRWMP goals and objectives such as water conservation; wastewater recovery and reuse; avoidance and mitigation of pollution threats to the ocean, drainage ways, lakes and groundwater reserves. General Plans of the cities echo similar themes of ensuring reliable water supply, maintaining open space and recreational opportunities in dense urban areas. Representative language taken directly from a representative sampling of city General Plans and their relationship to IRWMP programs is shown in Table 7-4. Each of the goals, policies, programs or actions

Table 7-3. Typical Planing Scales

Agencies and Entities	Individual Sites or Parcels	Within Jurisdictional Boundaries	Watersheds	Regional[1]
Federal Agencies	◉		▣	■
State Agencies	◉		▣	■
State Conservancies	◉	■	▣	▣
Regional Entities	◉	■		■
County Departments	◉	■	▣	
Special Districts	◉	■	▣	
Water Agencies	◉	■	▣	
Cities	◉	■	▣	
Other Organizations	◉	■	▣	

Notes:

[1] Scales such as Southern California, not the Greater Los Angeles IRWMP Region.

Symbol Key:

- ◉ *Planning for Specific Projects*
- ■ *Most Prevalent Planning Scale*
- ▣ *Occasional Planning at this Scale*

Table 7-4. Relationship of General Plan Policies to IRWMP Objectives

IRWMP Objectives	Goals, Policies, Programs and Actions expressed in Selected General Plans
Optimize local water resources to reduce the Region's reliance on imported water	• Promote conservation of water resources • Promote the use of water conservation devices • Encourage the use of reclaimed water • Work with the West Basin MWD to ensure completion of the recycled water facility infrastructure
Comply with water quality standards by improving the quality of urban runoff, stormwater and wastewater	• Reduce contaminant levels at beaches and oceans • Preserve existing naturally vegetated areas [for stormwater infiltration] • Incorporate stormwater runoff systems into site design • Utilize street wells, landscaped parkways, medians, islands and other elements of streetscape to minimize, capture and reuse stormwater runoff • Control surface runoff and associated pollutant loads into coastal waters, wetlands and riparian areas • Comply with laws prohibiting discharge of contaminants into the bays, and their tributaries • Protect ASBS against damage from excessive grading, stream pollution, and ocean outfalls
Protect and improve groundwater and drinking water quality	• Monitor production well quality • Coordinate with local, regional, state and federal efforts to protect the groundwater supply and enhance groundwater quality • Provide protection for groundwater recharge areas to ensure water quality and quantity
Protect, restore and enhance natural processes and habitats	• Restore Arroyo Seco streambanks • Connect habitat areas with larger expanses of open space • Protect stream bed gravel conditions in streams supporting steelhead trout • Establish setbacks from riparian corridors to protect wildlife habitats • Reclaim and preserve the natural state of Malibu Lagoon • Discourage plant species that are invasive where such species would degrade native plant communities
Increase watershed-friendly recreational space for all communities	• Uncovered open spaces should be encouraged to maximize opportunity for percolation of precipitation or imported water • Develop potential of existing open space resources represented by school playgrounds, flood control facilities, Edison right-of-ways, and City owned watersheds • Promote development of low-intensity, natural parks in City watershed areas with hiking, cycling, and equestrian trails • Provide target ratio of 3 acres of open space per thousand people • Provide a recreational resource within ½ mile of each resident
Maintain and enhance public infrastructure related to flood protection, water resources and water quality	• Monitor pipe system to check and correct leaks • Maintain the water supply system to meet water demands • Encourage private firms and public agencies providing water and waste management services to cooperate with all levels of government in enacting, establishing and enforcing consistent standards and criteria • Minimize potential adverse effects from flooding • Maximize the amount of pervious surfaces to absorb stormwater and decrease runoff

Source: General Plans of the Cities of Carson, Downey, El Monte (update in progress), Glendale, Los Angeles, Malibu, Pasadena and the County of Los Angeles.

shown is addressed within the associated IRWMP element.

Regional Water Quality Control Board Basin Plans. The IRWMP includes key strategies achieving water quality goals for the Region identified in the Basin Plans developed by the Los Angeles and Santa Ana RWQCBs. The control of NPS Pollution throughout the Region and restoration of water quality in local water bodies and adjacent coastal areas are particular aspects of the Basin Plans that are addressed by the IRWMP. A number of recommended actions are identified in the IRWMP to achieve this, such as coordinating NPS water pollution management on a watershed basis; implementation of control measures for pollutants associated with storm water/urban runoff; and controlling pathogens in the surf zone to ensure safety of swimmers. Projects designed to reduce, capture, and treat urban and stormwater runoff directly address the water quality objectives in the Basin Plans.

Involvement of Land Use Decision Makers. Land use decisions have the potential to affect the water management strategies utilized in the Plan, as land use can affect population growth, water demand and surface water quality. The implementation of stormwater capture projects may require acquisition of land which could displace existing uses and may warrant consideration of modifications to land use policies and practices. In developed areas, the land use decision makers are primarily the cities and the counties. In open space areas, the Forest Service, National Park Service, and California State Parks have responsibility for the conservation and preservation of those spaces. All of these agencies and jurisdictions have been involved in the IRWMP as voting or ex-officio members of the Leadership Committee, members of Subregional Steering Committees, or participants at stakeholder workshops.

Dynamics between IRWMP and Local Planning. The stakeholder process allows for interactive feedback to occur between local planning and regional IRWMP planning. Local planning is conducted by counties, cities, and local agencies and districts. Many of the water agencies, and most of the cities in the Region have participated either directly, or through the participation of a Council of Governments (COG) representative. Four COGs (Gateway Cities, Westside Cities, San Gabriel Valley Cities, South Bay Cities) representing 78 cities have been active in the IRWMP process. Through the stakeholder workshops, the water agencies, cities,

Figure 7-2. Pacoima Spreading Grounds, Tujunga Watershed. Local planning efforts like the Tujunga Watershed Project illustrates the importance of local planning in meeting regional IRWMP goals.

Torrance Detention Basin. Enhancement of detention basins in the Dominguez Channel watershed could improve water quality, create habitat, and provide passive recreation opportunities.

Compton Creek. Restoration of the natural bottom section of Compton Creek could improve water quality, facilitate recharge, and restore habitat.

COGs and municipal agencies have advocated for their respective local planning needs and issues, which have been incorporated into the IRWMP. Subsequently, the outcomes from the IRWMP planning process have been disseminated by the representatives back to their local governments and planning agencies, allowing the IRWMP priorities and plans to be considered in local planning where appropriate. For example, the Cities of El Monte, Torrance and Westlake Village are updating their general plans in the near future, and the IRWMP can be used to inform and shape that process in areas related to water resource management. In addition, water agencies can factor IRWMP programs and priorities into their individual plans. As future updates of the IRWMP occur, local entities that use that update to further refine or adapt these local plans.

Relationship of Other Planning Documents to IRWMP Objectives

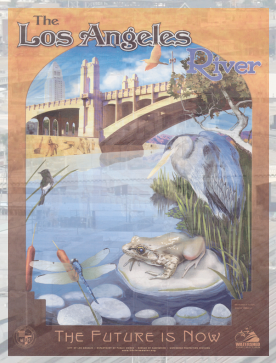
Other water resource management planning documents are also being used to help guide the IRWMP process. Many of these planning documents are sources of specific projects and programs that can be incorporated directly into the IRWMP implementation plan. A general discussion of how some of these planning documents support IRWMP objectives is provided below.

Optimize local water resources to reduce the Region's reliance on imported water. The quantity of supply necessary to meet future population growth and land use (forecasted in General Plans) is documented in the UWMPs of the Region. The IRWMP includes a number of projects described in the UWMPs, including large landscape water conservation projects. Recycled water and conservation master plans have been developed by local agencies and the IRWMP will implement a number of projects identified in those plans.

Comply with water quality standards by improving the quality of urban runoff, stormwater and wastewater. There are a number of local planning documents that have informed IRWMP efforts in this area. TMDL implementation plans are developed to meet Clean Water Act requirements. The Implementation Plans are developed at a local level and identify responsible agencies. Watershed master plans have been developed to resolve a number of issues in a holistic fashion. These plans contain many components related to stormwater management. The development of projects and programs to reduce, capture, infiltrate, and/or treat stormwater runoff is the responsibility of NPDES permit holders (and co-permittees), which include the counties, the cities, and point source dischargers. Projects and programs to reduce the presence of trash, bacteria, nutrients, metals, and toxic pollutants will be identified in TMDL implementation plans prepared by the relevant jurisdictions for the affected water bodies, and the plans and programs developed by individual permittees.

Protect and improve groundwater and drinking water quality. UWMPs for all water purveyors

LOCAL PLANNING



Taylor Yard

Confluence with Verdugo

Studio City

Figure 7-3 Los Angeles River Revitalization. The City of Los Angeles is undertaking a large-scale effort for the revitalization of 32 miles of the Los Angeles River.

in the Region document planning to address the impacts of groundwater and drinking water quality. Specific plans that address groundwater and drinking water quality include: City of Redondo Beach Water Quality Task Force Master Plan, Five Year Water Quality Management Plan, City of Downey Groundwater Master Plan, Potable Water Master Plan, San Gabriel Basin Groundwater Quality and Remediation Plan, and the Water Replenishment District Groundwater Management Plan.

Protect, restore and enhance natural processes and habitats. The goal to restore riparian habitat is contained in a number of local watershed management plans. Individual projects and programs to achieve this goal will be the responsibility of local jurisdictions in those areas in which restoration occurs, including those responsible for management of parks and open space (e.g., State land conservancies, including the Santa Monica Mountains Conservancy, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and the Baldwin Hills Conservancy, California State Parks, the County of Los Angeles, and city parks departments in some locations), resource management agencies (e.g., the U.S. Fish and Wildlife Service, US Forest Service, and the California Department of Fish and Game), land use agencies (e.g., the County of Los Angeles and cities in some locations), the local wastewater treatment entity (to the extent that wastewater discharge effects streams subject to restoration), and NDPES permit holders (where stormwater discharge effects water quality in stream subject to restoration). Thus, the plans, work programs, and capital improvement programs of those agencies and entities will include the specific projects and programs that implement this goal.

Increase watershed-friendly recreational space for all communities. Responsibility for the expansion of parkland and open space rests with numerous jurisdictions, including the park and recreation departments of the cities and counties in the Region, the Open Space District of the County of Los Angeles, the California Department of Parks, State land conservancies (e.g., Santa Monica

Mountains Conservancy, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, and the Baldwin Hills Conservancy), and the National Park Service. In addition, various private entities, such as land conservancies and trusts and park support groups have opportunities to promote and create additional parkland and open spaces. Many of these agencies and groups have existing plans to create new parks and preserve open space. In addition, most local watershed plans identify opportunities to expand parks and open space.

Maintain and enhance public infrastructure related to flood protection, water resources and water quality. The Sun Valley Watershed Management Plan has been developed to specifically address flooding as well as stormwater treatment, water supply, and open space benefits. LACFCD is committed to pursuing flood protection on an integrated watershed management approach and is developing a asset management plan for the flood protection infrastructure within their jurisdiction. Orange and Ventura County Flood Control Districts and the individual cities responsible for the operation, repair, and replacement of the flood management infrastructure are addressing the need for systematic repair and replacement through capital improvement plans.

Plans for maintaining and enhancing infrastructure are contained in the capital improvement plans of the wholesale and retail water agencies and municipalities with water departments, and sanitation agencies.

Implementation of Local Plans

Implementation of the IRWMP will address many of the expressly recommended actions, policies and goals found in the planning documents of the region. By doing so, it plays a crucial role of placing these plans into a regional context, while preserving the outcomes of the individual planning efforts. Most of the implementation projects come directly from local plan documents. Altogether, the projects included in this IRWMP directly implement elements of a number of local plans and studies. These include UWMPs, Watershed Plans, TMDL Implementation Plans, River/Creek Master Plans, Water Recycling Master Plans, Water Conservation Master Plans, Greenway Master Plans, and Master Facilities Plans. The IRWMP also includes projects that meet the water quality objectives of the local basin plans.

7.3 Institutional Structure

Existing Organizational Structures

Regional Structures

Existing organizations and jurisdictions that work at a Regional scale include the Southern California Association of Governments, the Metropolitan Water District, and the Southern California Wetlands Recovery Project, although each of these work at a scale that is larger than the Greater Los Angeles County IRWMP Region.

The Leadership Committee established to guide the development and implementation of the IRWMP works at the scale of the Greater Los Angeles County Region. The Leadership Committee is supported by five Subregional Steering Committees, and input from stakeholders via Regional and Subregional workshops. The governance structure for the Leadership Committee and the Steering Committees is currently governed by interim operating guidelines. The RWMG formed by the MOU between agencies and organizations involved in the IRMWP process works at the same scale.

Subregional Structures

The only existing organizations that work at the precise scale of the IRWMP Subregions are the Steering Committees established for the IRWMP. Other types of Subregional structures are JPAs. Table 7-5 shows some of the JPAs in the Region, their composition and what issues they address. COGs are one type of JPA and are important as they bring cities together to discuss common issues in number of areas including water management and open space. The COGs have been active participants in the IRWMP process, ensuring that their member cities' needs are being heard, as well as providing a means to disseminate the results of integrated planning down to the local level. Other JPAs have proven to be very effective in combining complementary powers of two or more agencies to solve problems that require multidisciplinary approaches.

Table 7-5. Joint Powers Authorities in the Region		
JPA	**Composition**	**Purpose**
Gateway Cities COG	• Cities of Artesia, Avalon, Bell, Bellflower, Bell Gardens, Cerritos, Commerce, Compton, Cudahy, Downey, Hawaiian Gardens, Huntington Park, La Habra Heights, La Mirada, Lakewood, Long Beach, Lynwood, Maywood, Montebello, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, Vernon, Whittier • County of Los Angeles • Port of Long Beach	The goal and intent of the council is one of voluntary cooperation among the cities for the collective benefit of cities in Southeast Los Angeles County.
Las Virgenes Malibu COG	• Cities of Agoura Hills, Calabasas, Hidden Hills, Malibu, Westlake Village	To provide a vehicle for members to engage in Regional and cooperative planning and coordination of government services and responsibilities.
Los Cerritos Wetlands Authority	• San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, • California Coastal Conservancy • Cities of Long Beach and Seal Beach	To provide a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation and environmental enhancement of the Los Cerritos Wetlands area.
Mountains Recreation and Conservation Authority (MRCA)	• Conejo Recreation and Park District • Rancho Simi Recreation and Park District • Santa Monica Mountain Conservancy	To preserve and manage local open space and parkland, watershed lands, trails and wildlife habitat.
Orange County Council of Governments	• 34 cities, including Anaheim, Brea, Buena Park, Cypress, Fullerton, La Habra, La Palma, Los Alamitos, Placentia, and Seal Beach • Orange County • 17 water, infrastructure, and transportation agencies	A voluntary advisory association representing governments and agencies throughout Orange County seeking cooperative subregional and Regional planning, coordination and technical assistance on issues of mutual concern.
Puente Hills Landfill Native Habitat Preservation Authority	• City of Whittier • County of Los Angeles • Sanitation Districts of Los Angeles County • Hacienda Heights Improvement Association.	To acquire, restore and maintain open space in the Puente Hills as a permanent protection for the native habitat.
San Gabriel River Discovery Center Authority	• Upper San Gabriel Valley Municipal Water District • Central Basin Municipal Water District • Los Angeles County Department of Parks and Recreation • San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC)	Provide educational and outdoor experiences for people of all ages.
San Gabriel Valley COG	• Cities of Alhambra, Altadena, Arcadia Azusa, Baldwin Park, Bradbury, Claremont, Covina Diamond Bar, Duarte, El Monte, Glendora, Hacienda Heights, Industry, Irwindale La Canada Flintridge, La Puente, La Verne, Montebello, Monterey Park, Pasadena, Pomona, Rosemead, Rowland Heights, San Dimas, San Gabriel, Sierra Madre, San Marino, South El Monte, South Pasadena, Temple City, Walnut, West Covina	To provide a unified voice to maximize resources and advocate for Regional and member interests to improve the quality of life in the San Gabriel Valley.

Table 7-5. Joint Powers Authorities in the Region (Continued)		
JPA	**Composition**	**Purpose**
Santa Monica Bay Restoration Authority (SMBRA)	• Los Angeles County Flood Control District • SMBRC	To reduce storm drain pollutant discharges in order to improve the water quality of the Santa Monica Bay.
South Bay COG	• Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Torrance, and the Harbor City/San Pedro communities of the City of Los Angeles.	To maximize the quality of life and productivity of the South Bay region.
Southern California Coastal Water Research Project	• Cites of Los Angeles and San Diego • County Sanitation Districts of Los Angeles and Orange Counties • Los Angeles, San Diego, and Santa Ana RWQCBs • State Water Resources Control Board • U.S. Environmental Protection Agency • Ventura County Watershed Protection District • Los Angeles County Department of Public Works • Orange County	Address limited knowledge of the effects of wastewater and other discharges to the Southern California coastal marine environment.
Tapia Water Reclamation Facility JPA	• Las Virgenes Municipal Water District • Triunfo Sanitation District	To operate Tapia WRF for both wastewater treatment and water reclamation.
Watershed Conservation Authority	• Los Angeles County Flood Control District • San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy	The focus of the Watershed Conservation Authority is on projects which will provide open space, habitat restoration, and watershed improvement projects in the watersheds of both the San Gabriel River and the Lower Los Angeles River.
Westside Cities COG	• Cities of Beverly Hills, Culver City, Los Angeles, Santa Monica, West Hollywood	To forge consensus on policies and programs of regional significance that enhance the quality of daily life, sustain the environment and enrich the future.
Wildlife Corridor Conservation Authority	• Cities of Brea, Whittier, Diamond Bar, La Habra Heights • Santa Monica Mountains Conservancy • California Department of Parks and Recreation, California Department of Fish and Game (ex officio member) • Los Angeles County • Two public members.	To provide for the proper planning, conservation, environmental protection, and maintenance of lands within the Puente-Chino Hills corridor area.

Watershed-Based Structures

Stakeholder groups were established to support development of watershed plans, including the Arroyo Seco Watershed Restoration Feasibility Study, the Ballona Creek Watershed Management Plan, Compton Creek Watershed Management Plan, Dominguez Channel Watershed Management Master Plan, Making Progress: Restoration of the Malibu Creek Watershed, Malibu Creek Watershed Natural Resources Plan, Rio Hondo Watershed Management Plan, Santa Monica Bay Restoration Plan, Sun Valley Watershed Management Plan, and the Upper San Gabriel River Watershed

Management Plan. Several of the watershed groups established during plan development are still active, although some only meet occasionally. In addition, stakeholder groups are active for several plans that are currently under development, including the Tujunga Wash, the Headwaters of the Los Angeles River, and Coyote Creek.

Several recent TMDLs adopted by the Los Angeles RWQCB—the Santa Monica Bay (wet and dry-weather) bacteria, the Los Angeles River metals TMDL and the Malibu Creek Watershed Bacteria and Nutrient TMDLs—require establishment of jurisdictional groups to develop monitoring and implementation plans. These are generally organized on a watershed basis. The Santa Monica Bay groups have been functioning since 2003, although the groups for the Los Angeles River metals TMDLs were established this year.

Governance Options

There has been a great deal of discussion regarding governance options going forward. A stable governance structure, based on widespread agreement of the stakeholders, would assure the long-term implementation of the Plan. Four alternatives are listed below.

Maintain Existing Structure. The existing governance structure, with a Leadership Committee, five Subregional Steering Committees, and input from occasional stakeholder workshops, could be maintained over the life of the IRWMP. This may require some clarification of the existing operating guidelines to specify terms of service for committee members and a process for the selection of future committee representatives.

Modify Existing Structures. To respond to stakeholder suggestions about representation, the existing governance structure could be expanded to provide representation for additional jurisdictions and agencies in the Region and add representation for non-governmental organizations on the Leadership Committee. For example, a representative could be identified for each of the watershed planning efforts underway in each Subregion (e.g., a representative from the Ballona Creek Watershed Task Force could be added to the South Bay Steering Committee), or for each of the cities and counties in each Subregion. Given the number of cities, this might suggest creation of a two-tiered structure for each Subregion, the entire group (which might meet only occasionally) and a steering committee with duly elected city representatives (which could meet more regularly).

Currently, the IRWMP committees (Leadership and Steering) are charged with discussing all IRWMP issues to foster integration. However, for some topics, sub-committees could be established, such as water supply, water quality, and habitat/open space. Although this might make some activities more efficient, it may also raise concerns about the potential to reduce the focus on integration. However, if participation in the IRWMP was expanded, some form of topical focus might be useful to keep individual meetings more manageable.

Integrate Existing Structures. The governance structure could be modified to include additional existing structures or organizations, consistent with some comments at the Regional IRWMP Workshop on August 2, 2006. Existing organization that might be integrated into the IRWMP governance structure include watershed-based groups (e.g., watershed stakeholder groups and jurisdictional groups formed for TMDL compliance), local Councils of Government, or other ad hoc organizations, such as the North Santa Monica Bay Task Force (formed to address bacteria TMDLs), or the Management Committee of the North Orange County Watershed Management Area. As most of these groups work at a Subregional or watershed scale, the integration of these groups into the existing structure would most likely occur at the Subregional scale. For example, some stakeholder input could occur via these existing organizations (reducing or replacing future stakeholder workshops), which might also be included as members on the Subregional Steering Committees.

Create New Structures. Although informal associations of agencies, cities, counties, and stakeholder groups may be sufficient for the discussion and identification of issues, formulation of plans (such as watershed plans), more formal arrangements are typically required to plan, implement, operate, and maintain projects and programs.

Options for the creation of new structures include a formal agreement between multiple parties, such as an MOU, which is often implemented for individual projects or programs, or a cost-sharing agreement, which may extend over the life of a program or a plan. As an alternative, a new organizational entity could be created, such as a JPA, which typically is used for multiple actions and/or for long-term activities, or the formation of a non-profit group (e.g., a tax-exempt organization per Section 501(c)(3) of the Internal Revenue Code). A new governmental entity could be created (e.g., via legislative action) to form a new regional entity with specific authorities and responsibilities. Alternatively, an existing agency or organization could assume responsibility for plan implementation, or for implementation of a portion of the plan (e.g., surface water quality).

7.4 Coordination

State and Federal Agencies

As noted above, in addition to the voting members, the Leadership Committee currently includes 14 ex-officio (non-voting members), including four federal agencies (Bureau of Reclamation, National Parks Service; U.S. Army Corps of Engineers; and the Forest Service), nine state agencies (Department of Fish and Game; California Coastal Commission; State Coastal Conservancy; Department of Transportation; DWR; EPA; RWQCB (Los Angeles Region); Department of Parks and Recreation; and DHS), and one Regional agency (Metropolitan Water District of Southern California). Thus, coordination with federal and state agencies is currently ongoing.

- Federal agencies such as the National Park Service own a great deal of land which can impact the North Santa Monica Bay watersheds. The National Forest Service manages large portions of the Upper San Gabriel and Los Angeles Watersheds.
- The Angeles National Forest is located upstream of the San Gabriel River watershed and has experienced problems with sedimentation. To address this problem the Upper San Gabriel Valley MWD is partnering with the USDA Forest Service to replant forests that have been denuded by wildfires.
- The U.S. Army Corps of Engineers is a necessary partner in any dam related activities, such as the removal of Ridge Dam in the North Santa Monica Bay Watersheds, or for modified operation of Hansen, Whittier or Santa Fe Dams to improve the storage and release of runoff for subsequent recharge. It also is important in conducting feasibility studies such as the Arroyo Seco Watershed, and could play a role in future funding opportunities related to ecosystem restoration along the rivers and major flood control channels.
- The Department of Fish and Game has awarded grants to local cities for replacement of bridges in order to remove barriers to fish passage.

Similar examples apply to state agencies involvement:

- The California Coastal Conservancy (CCC) plays an important role in projects near the coast. The Solstice Creek Southern Steelhead Habitat Restoration Project involves a cooperative agreement between the City of Malibu and the CCC.
- California State Parks is already an active stakeholder. Its participation is critical as many potential habitat projects may take place on state parks land. As an active project proponent, it can assist the IRWMP effort by communicating the importance of its projects to the public.
- RWQCB representatives are also engaged in the IRWMP process and are involved in parallel efforts to develop TMDLs and the associated TMDL Implementation Plans. By maintaining contact with both TMDL and IRWMP efforts, the RWQCB can identify projects that will meet TMDL requirements and support integrated planning that meets other regional needs. By streamlining the process and avoiding duplication of efforts, the RWQCB can make available funds go further.
- Southern California-based staff from the California DWR attends most Leadership Committee and some Subregional Steering

Committee meetings to observe the discussion and provide comments and suggestions about potential relationships between local and statewide water resource planning.

As projects are developed and/or refined, the involvement of some state and/or federal agencies may be warranted. State and federal agencies that may be relevant to the development and/or refinement of projects are identified in Table 7-1 for each water management strategy.

In general, for water supply projects, involvement of state agencies (such as the DWR, the SWRCB, or the DHS) is typically limited to oversight or review in conjunction with funding applications or regulatory oversight. Projects that involve modifications to existing surface storage and/or flood protection structures or new structures would warrant involvement of the U.S. Army Corps of Engineers and possibly the Bureau of Reclamation.

For water quality projects, involvement of state agencies is also typically limited to funding applications or regulatory oversight. Little interaction with federal agencies is likely, unless such projects might involve modifications to flood protection structures maintained by the U.S. Army Corps of Engineers.

For habitat projects, involvement with state and federal agencies is more typical, given the resource management responsibilities of key agencies (e.g., U.S. Fish and Wildlife, state Fish and Game, and the Coastal Conservancy), or the funding opportunities provided by the various state conservancies. In addition, projects that propose restoration of wetlands or riparian habitat could also be pursued in partnership with the U.S. Army Corps of Engineers.

As more detailed planning occurs at the Regional and Subregional scale, various federal agencies should be involved in that process. For example, water supply planning should include the California DWR. Water quality planning should include the Los Angeles RWQCB. Habitat Planning should include the Forest Service, Fish and Wildlife, California Fish and Game and state conservancies. Specific examples of state and federal agencies that should be involved in more detailed water supply, water quality, and habitat/open space planning are identified in Table 7-2.

Development of a funding strategy should include key state and federal agencies, including the DWR and SWRCB (to assure eligibility for future state funding opportunities) and the U.S. Army Corps of Engineers (to assure eligibility for U.S. Army Corps of Engineers participation in ecosystem restoration activities). Refer to Section 7.7 for a more complete discussion of state and federal funding strategies.

Adjacent IRWMP Regions

The Leadership Committee will coordinate as appropriate with all other Planning Regions that surround the boundary of the Greater Los Angeles County Region, including but not limited to: the Watersheds Coalition of Ventura County, the Municipal Water District of Orange County, the Santa Ana Watershed Project Authority, the Upper Santa Clara River, and the Antelope Valley. This coordination will prevent duplicate project submissions or gaps where IRWMP Regions overlap and will improve inter-Regional understanding and coordination on issues of common interest.

7.5 Technical Feasibility

The projects proposed for implementation in the IRWMP in conjunction with Round 1 of Proposition 50, Chapter 8 funding are supported through technical studies and reports that document their ability to meet the intended objectives. As future projects are recommended for funding and implementation, it is assumed that similar technical studies and reports will document the feasibility of those projects and provide support for the ability of the projects to generate the identified benefits. The technical support for these projects on a programmatic level is summarized by IRWMP objective below.

Optimize local water resources to reduce the Region's reliance on imported water. Projects selected to meet this objective could include water conservation, desalination, and recycled water projects. Water conservation projects typically involve the use of proven technology, such as irrigation controllers, which utilize a computer that accounts for a series of factors to deliver the correct amount

of water for conditions. The technical feasibility of desalting projects has been well established and efficiency is increasing due to improvements in membrane technology. Recycled water projects utilize treatment processes for producing water that meets Title 22 standards. An example is the use of dual barrier free chlorine UV system which is a well documented practice for producing tertiary water for reuse while avoiding formation of NDMA.

Comply with water quality standards by improving the quality of urban runoff, stormwater and wastewater. This objective will be implemented by a series of runoff reduction, capture and infiltration projects, as well as non-structural programs. A key element for success of the program is optimal project site selection to ensure high levels of capture and pollutant reduction. TMDLs and TMDL Implementation Plans provid analysis of target pollutant sources and identify high impact areas that have been targeted by IRWMP projects. The effectiveness and design of structural BMPs employed in these projects have been optimized based on previous project experience and the efforts of the Los Angeles County BMP Task Force.

Protect and improve groundwater and drinking water quality. Protecting and improving drinking water quality involves using treatment unit processes that have been well documented including disinfection processes such as ultraviolet light and ozone injection; and contaminant removal processes including granular activated charcoal, ion exchange and reverse osmosis. Groundwater protection also involves pumping management which may rely on groundwater models, which have been developed for many groundwater basins.

Protect, restore and enhance natural processes and habitats. Projects that will meet this objective include stream restoration, steelhead habitat restoration, exotics removal and wetlands restoration. Stream restoration projects are supported through a number of studies that document proven hydromodification techniques. Steelhead habitat restoration is supported by biological studies and established steelhead habitat criteria as documented by studies such as the Fish Migration Barrier Severity and Steelhead Habitat Quality in the Malibu Creek Watershed. Projects involving removal of exotic species use techniques developed from previous experience. These involve methods for removal on slopes and level ground as well as the best post removal strategies for keeping exotics from returning.

Increase watershed-friendly recreation and accessible open space for all communities. Resource Conservation Districts, the National Park Service, California State Parks and local park agencies have developed a number of documents that identify potential opportunities for preserving existing open space and creating additional open space and recreation. These documents also contain information that assist in determining planning criteria such as appropriate density and access while minimizing the negative impacts of human activity on the natural environment.

Pacoima Wash Today. Pacoima Wash provides flood control in the City of San Fernando

Pacoima Wash Rendering. This project, implemented by the City of San Fernando, will create habitat and provide recreational access.

Maintain and enhance public infrastructure related to flood protection, water resources and water quality. Given the existing flood protection system, it is unlikely that maintenance or enhancement of flood protection will require the construction of new large scale facilities, although repair and/or replacement of some facilities may be necessary. Watershed plans based on hydrologic analysis and the rational method of runoff estimation provide the support for determining placement of measures such as detention ponds and infiltration basins.

The technical feasibility of infrastructure maintenance projects is based on standard construction procedures and vendor specifications.

Table 7-6 provides a summary of some representative technical documents in the form of analyses,

Table 7-6. Documents supporting technical feasibility

Objectives	Documents for Projects Associated with Each Objective	Technical Support
Optimize local water resources to reduce the Region's reliance on imported water	The Residential Runoff Reduction Study (MWDOC & IRWD, July 2004)	Provides scientific and technical merit to the water savings and runoff reduction attributed to WBICs.
	Westpark Study (IRWD, MWDOC, and MWD, 2001)	Presents a small-scale study of Weather-Based Irrigation Controllers.
Comply with water quality standards by improving the quality of urban runoff, stormwater and wastewater	Assessment of BMP Effectiveness (Brown et al, September 2005)	Provides an evaluation of BMP effectiveness.
Protect and improve ground-water and drinking water quality	Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (NWRI and AWWARF Guidelines, May 2003)	Provides guidelines developed by UV experts that formulate minimum design requirements for UV disinfection and currently adopted by California DHS. Specifically discusses UV for water reuse and testing protocols.
Protect, restore and enhance natural processes and habitats	Fish Migration Barrier Severity and Steelhead Habitat Quality in the Malibu Creek Watershed (Heal the Bay, 2005)	Ranks the severity of steelhead trout migration barriers that block potential spawning and rearing habitat in the Malibu Creek Watershed.
	Weed Control Methods Handbook: Tools and Techniques for Use in Natural Areas (Mandy Tu, Callie Hurd, John M. Randall, 2001)	Describes an integrated pest management approach and reviews available control methods with pros and cons of each. We use this information to select control methods and design our overall site plan.
Increase water-shed-friendly recreational space for all communities	Common Ground: From the Mountains to the Sea: San Gabriel and Los Angeles Rivers Watershed and Open Space Plan (RMC and SMMC, 2001)	Sets forth a detailed list of guiding principles for land and water planning. The plan provides general characteristics of the watersheds and includes general project selection criteria. Trails, habitat linkages, open space and preservation opportunities are identified.
	Santa Monica Bay Restoration Plan	Comprehensive plan that established priority actions to ensure the health of Santa Monica Bay.
	Watershed Management Plan for the San Gabriel River above Whittier Narrows (CDM, 2005)	Provides recommendations and policy measures to result in multiple beneficial uses for communities and wildlife by addressing the multiple areas.
Maintain and enhance flood protection	Los Angeles and San Gabriel Rivers Watershed Feasibility Study: Preliminary Draft Feasibility Report (USACE, LADPW, 2001)	Characterizes watershed through GIS data mapping, narrative and tables. The report used GIS modeling to create project selection criteria.

studies and plans that have been used to develop the IRWMP and ensure technical feasibility.

7.6 Funding

The Leadership Committee has acknowledged that significant financial resources will be needed to implement the IRWMP and there are currently limited funding sources for this purpose. As discussed in Section 6 (Benefits and Impacts), conceptual cost estimates have been developed for the Regional Planning Tools which suggest it could take between $26 and $76 billion to achieve the planning targets. It is clear that existing local revenue sources will not be sufficient to fund this level of activity during the 20-year plan horizon. The Leadership Committee has acknowledged that additional funding sources are needed, and these will likely be a combination of local, state, and federal sources. Following is a discussion of the major activities needed to assure a comprehensive funding plan is developed and implemented in support of the IRWMP.

Local Funding Strategy

The Leadership Committee has indicated that local funding measures should be considered as a part of their overall strategy to develop the appropriate revenue to achieve the Regional planning targets in the next 20 years. While existing funding mechanisms are in place for development of water supply and wastewater facilities and operation and maintenance of these facilities, they may not be entirely adequate to achieve the targets for water supply and wastewater. In addition, there is no widespread local revenue-generating mechanism in place to provide for management of stormwater quality.

The Regional Watershed Infrastructure Funding Workgroup, sponsored by the Los Angeles section of the American Society of Civil Engineers prepared a draft report in September 2005 which evaluated several options to develop local funding, as well as the advantages and disadvantages of those options. Of the funding sources evaluated

LOCAL FUNDING

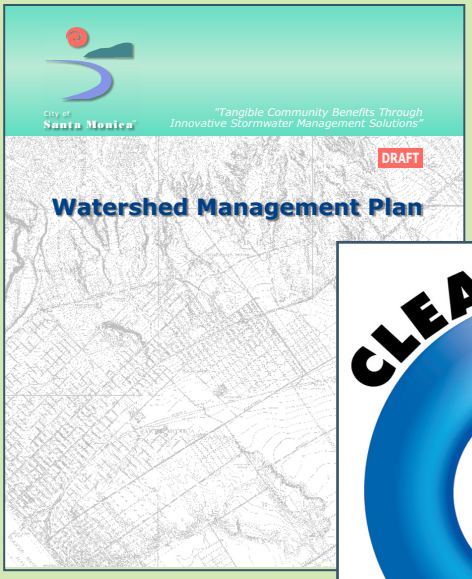


Figure 7-4. Funding Success Stories. City of Los Angeles residents voted in 2004 to approve Proposition "O", a $500M funding measure to implement multipurpose water management projects consistent with the IRWMP goals. The City of Santa Monica voted on November 7, 2006 on Measure V, Clean Beaches and Ocean Parcel Tax. At printing time, 67.03 percent of the votes counted were in favor, above the required 66.67 percent.

in that report, three were judged to be the most promising for funding the costs of a watershed management program. These are special purpose property taxes, benefit assessments, and utility fees. All three sources have relatively low administrative costs and could fund capital projects as well as operation and maintenance of those projects.

Table 7-7 provides a comparison of the three best funding sources in relation to the remaining evaluation criteria. It should be noted that it is extremely challenging to develop local funding in the state of California since the adoption of Proposition 218 in 1996 which extended the requirement for a 2/3-vote of the electorate (or 50 percent of the returned ballots of property owners) to most local funding options.

The Infrastructure Funding Workgroup draft report does not recommend a single best funding source for implementation of projects. Instead, the advantages and disadvantage of the alternative sources are presented in the paper so that policymakers can choose among them.

In response to a unanimous motion by the Los Angeles County Board of Supervisors in September 2005, the LACDPW, along with other County departments and agencies, is currently evaluating several options to fund solutions that would address surface water quality with an emphasis on multi-use projects. Options including those described above would assist the Leadership Committee to achieve progress towards the planning targets through the development of a stable, long-term local revenue stream. LACDPW, and its partners, are conducting additional research on the various funding options available and developing recommendations to the County Board of Supervisors on how to best proceed with a funding measure. Subsequent work will identify potential benefits that would be provided by the funding measure (e.g., progress towards the planning targets), develop a thorough assessment of existing operations, and develop an outreach plan to educate the public. One option that may be considered as a model funding mechanism is the Los Angeles County Safe Neighborhood Parks Proposition of 1996 (Proposition A) as it provided revenue to cities and directly to projects through three separate methods.

Possible next steps in developing the local funding plan include:

Develop Local Funding Plan

- Evaluate current sources of funding for water supply, water quality, habitat, open space, and infrastructure, and determine funding gaps;
- Evaluate feasibility of implementing a local funding measure based on conclusions of ASCE draft report and other reliable sources, such as research provided by the County of Los Angeles Department of Public Works;
- Evaluate potential for state and federal partners so that an estimate of the required local share of funding can be developed;
- Identify and rank new local funding alternatives; and
- Prepare draft local funding plan.

Perform Partnering Activities

- Identify key local stakeholders.
- Meet with stakeholders to promote funding plan and partnerships.
- Compile feedback from stakeholders, revise funding plan based on stakeholders' input; and
- Develop education and outreach campaign to educate the public on the IRWMP targets, the need for infrastructure to achieve the targets, the need for additional local revenue, etc.

Implement Local Funding Plan

- Implement Local Funding Plan.
- Refine Local Funding Plan as needed.

State Funding Strategy

Voters of the State of California have passed a number of statewide water and watershed funding measures in the past several years including Propositions 12, 13, 40, 50, and most recently Proposition 84, which will provide significant IRWMP funding. The IRWMP Leadership Committee was formed because of the funding available through the state and has acknowledged that future statewide funding could play a significant

Table 7-7. Comparison of the Three Local Funding Alternatives

Funding Source	Equity	Implementation Feasibility	Stability of Revenue	Acceptable	Flexibility
Bonds and Property Tax for Capital, Parcel Tax for O&M	All property owners pay for runoff from public places and would be appropriate for funding the general benefits of multipurpose projects. Poor nexus between payment and runoff from private properties.	Parcel taxes cannot be varied to fit well with the existing funding sources of the cities to guarantee that all residents pay their fair share. Parcel taxes could not vary between watersheds.	Property tax revenues could be reduced somewhat if falling property values force the County to lower assessed valuations. Parcel tax revenues are stable.	Requires 2/3 vote.	Can cover all types of costs, including O&M.
Benefit Assessment	Good nexus between payment and contribution to runoff from private property. Must assume that responsibility for runoff from streets is proportion to runoff from private property.	Can vary to fit well with the existing funding sources of the cities to guarantee that all residents pay their fair share. Assessments could vary between watersheds.	Revenues are very stable.	Requires half of weighted vote of property owners. Large properties could defeat the vote.	May not cover the costs of general benefits, which could be much of the total.
Utility Fee	Good nexus between payment and contribution to runoff from private property. Must assume that responsibility for runoff from streets is proportion to runoff from private property.	Can be varied to fit well with the existing funding sources of the cities to guarantee that all residents pay their fair share. The fees could vary between watersheds.	Revenues are very stable.	Requires either half vote of property owners or 2/3 vote of the general electorate.	May not be used for general government services, but will likely cover more than assessments.

role in meeting the planning targets. The following activities are recommended as a part of a state funding strategy:

Evaluate and Apply for Existing State Funding Opportunities

- Pursue Proposition 50, Round 2, grant applications for IRWMP planning and project implementation;
- Consider other chapters of Proposition 50 and their applicability to IRWMP implementation.
- Evaluate other statewide funding opportunities including Bay-Delta watershed program grants.

Participate in Crafting and/or Providing Leadership of Future Statewide Funding Measures

- Participate in statewide discussions regarding the scope and projects to be funded in Proposition 84, as well as the appropriate distribution of funds statewide.
- Identify appropriate representatives for the IRWMP Leadership Committee in discussions on development and interpretation of the language in any draft or final funding measures.

Perform Partnering Activities

- Identify key statewide stakeholders.
- Meet with stakeholders to promote state funding plan and partnerships.
- Compile feedback from stakeholders, revise funding plan based on stakeholders' input.

Implement State Funding Plan

- Implement Funding Plan;
- Refine Funding Plan as need.

Federal Funding Strategy

Local agencies and jurisdiction seek federal funding opportunities and federal agencies may provide opportunities to fund IRWMP projects.

Table 7-8. Potential Sources of Funding to Implement IRWMP Projects			
	Sources	Expected Contribution	Targeted Beneficiaries
Local	• Existing Capital Improvement Budgets • Local sales tax • Bond and associated property tax • Utility fee or benefit assessment based on use of the property • Utility fee or benefit assessment based on total area and impervious area • Gasoline tax • Water sales • Parcel tax	High (50%-100%)	Region's residents, environment, and economy
State	• Competitive grants • Appropriations • State-wide Assessments	Moderate (10-50%)	Statewide environment and economy
Federal	• Appropriations • Competitive grants	Moderate (10-50%)	Areas of national environmental or economic significance
Others	• Individual and corporate donors • Foundations and other non-profit organizations	Low (<10%)	Particular communities or targeted interests in the Region

While no definitive funding plan has been developed to date; a description of potential funding sources for implementation of IRWMP projects is identified in Table 7-8.

Funding Options – Additional Planning

The Leadership Committee and Steering Committees have acknowledged that additional planning will be needed to refine and integrate stakeholder-identified projects and develop fully integrated projects that achieve the planning targets.

To fund additional detailed IRWMP planning, several funding options may be possible:

- Contribution from local sources (e.g., Leadership and Steering Committee members).
- Grant from State Funds (e.g., Round Two of Proposition 50, funds for continured planning in Proposition 84, or future bonds).
- Legislative Appropriation.
- Federal Funds (e.g., via U.S. Army Corps of Engineers participation).

7.7 California Environmental Quality Act Compliance

This IRWMP is a feasibility or planning study which identifies possible future actions the members of the RWMG have not approved, adopted, or funded, and therefore is statutorily exempt from the CEQA. Consistent with Section 15262 of the CEQA Guidelines, a project involving only feasibility or planning studies does not require the preparation of an Environmental Impact Report or Negative Declaration but does require consideration of environmental factors. Potential environmental effects that might result from implementation of the IRWMP are identified in Section 6.4 (Potential Impacts of IRWMP Implementation). Any agency decision to implement any project or program identified herein would be subject to CEQA compliance at such time as such agency commits to fund or implement the project.

7.8 Data Management

The collection, management, dissemination and utilization of data (e.g., information gathered from

studies, sampling events, or projects) are an essential element to creating a sustainable integrated plan. Information needs to be available to regional leaders, stakeholders, and the public to facilitate effective planning and decision-making. Data management is necessary to identify data gaps, detect and avoid duplicate data collection efforts, support statewide data needs, and integrate with other regional and statewide programs.

Management and Dissemination of Data

Dissemination of data to stakeholders, agencies, and the general public is integrated into the IRWMP process to ensure overall success. This process is shown in Figure 7-5. Stakeholder workshops serve as the basis for the dissemination of information. Data collected or produced as part of the IRWMP will be presented and disseminated during these workshops.

A website has been created to store data and information about the IRWMP process so that the public can find information about meeting dates, agendas, and notes. The website provides information on the IRWMP process and posts annual reports and relevant documents that can be downloaded. Data collected during the IRWMP process will be available on the website as well. The website will also provide links to other existing monitoring programs to promote data exchange between these programs and the IRWMP. This will provide a means to identify data gaps (e.g., information needed to provide a more complete assessment of the status of a specific issue or program) and to ensure that monitoring efforts are not duplicated between programs.

Existing Monitoring Efforts

Surface Water Quality

Numerous federal, state, municipal, local and community agencies and organizations have been conducting monitoring of surface water quality in the Region for years. Table 7-9 identifies a few of the recent surface water quality monitoring efforts and programs. In general, these efforts and programs supply data to support the implementation of statewide programs such as TMDL development and implementation and Clean Water Act 303(d) listing of impaired water bodies. Data

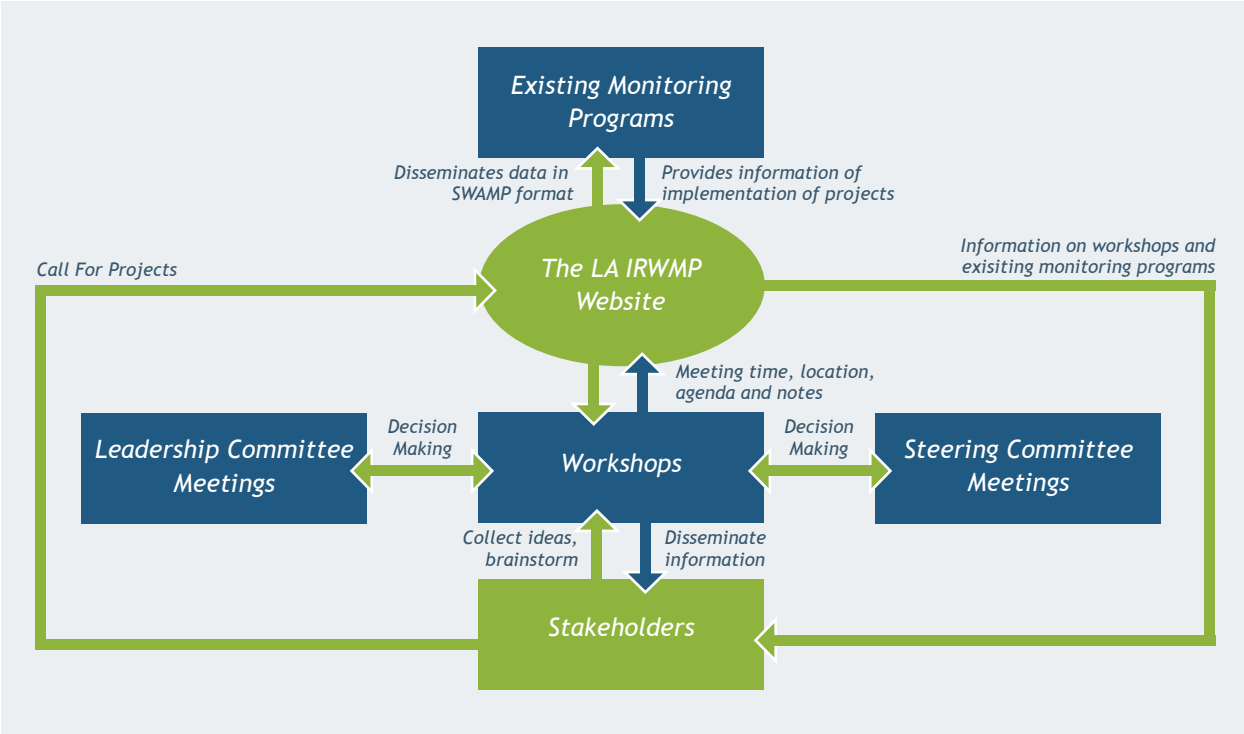


Figure 7-5. Data Management Flow. Disseminatin of data to stakeholders, agencies, and the general public is integrated into the IRWMP process to ensure overall success.

Table 7-9. Recent Surface Water Quality Monitoring Programs	
Lead Agency Program	**General Overview**
Caltrans	Caltrans conducts monitoring aimed at estimating loadings from highway runoff.
City of Los Angeles Cleaner Rivers through Effective Stakeholder-led TMDLs (CREST)	CREST is a stakeholder effort initiated by the City of Los Angeles to develop TMDLs to restore and protect water quality in the Los Angeles River and Ballona Creek. TMDL strategies must include monitoring as the final step.
Friends of the Los Angeles River RiverWatch (319(h) grant program)	A (319(h) grant program monitoring the quality of water at 60 sites along the full length of the Los Angeles River on a monthly basis, surveying the river's biota in natural bottomed areas and tracking seasonal changes in the river and related habitat. FoLAR publishes a State of the River Report and intends to develop a successful and long-term volunteer river monitoring program.
Heal the Bay Beach Monitoring	Heal the Bay Beach Monitoring provides monitoring of total coliform, fecal coliform, enteroccus, and total fecal ratio.
Los Angeles and San Gabriel Rivers Water Augmentation Study	The Los Angeles and San Gabriel Rivers Watershed Council is monitoring six sites to determine whether infiltration of stormwater results in the subsequent migration of pollutants to groundwater. The Phase II Final Report is available at www.lasgrwc.org
Los Angeles Basin Contaminated Sediment Task Force	The task force is conducting a study to identify sources of heavy metals loadings within the Ballona Creek Watershed. Study results could support the development of a TMDL for selected heavy metals.
Los Angeles County Department of Public Works (LACDPW)	LACDPW monitors runoff from major watersheds, including some tributaries, during multiple storm events as well as during dry weather in order to comply with its NPDES permit. Samples are taken for physical, chemical and biological analysis; toxicity testing, bioassessment and trash monitoring are also performed. Details of the NPDES monitoring program and prior year's data are found in the annual monitoring reports at www.ladpw.org.
Los Angeles County Department of Public Works (LACDPW) Santa Monica Bay Beaches Bacteria TMDL Monitoring	The TMDL, which has been divided into dry weather and wet weather, each having its own compliance dates and limits, encompasses 27 subwatersheds that cover 44 303(d)-listed beaches from Malibu to Palos Verdes. The Coordinated Shoreline Monitoring Plan (CSMP) provided 67 sampling sites to be monitored on a weekly basis starting in November 2004.
Malibu Chapter of the Surfrider Foundation	The Malibu Chapter provides volunteer monitoring of the upper Malibu Creek Watershed, and coliform monitoring of the surf zone off the Malibu coast.
Malibu Creek Watershed Advisory Council Malibu Creek Monitoring Program	Volunteer effort to provide baseline data for receiving waters throughout the watershed, coordinate with other monitoring efforts to avoid duplication, and provide data to submit to the Regional Water Quality Control Board to assist in the development of TMDLs. Where possible, this program will be used to satisfy TMDL compliance monitoring requirements.
Port of Los Angeles Consolidated Slip Restoration Project Draft Plan	A Consolidated Slip Restoration Project draft plan by the Port of Los Angeles described the extent of sediment contamination in Consolidated Slip and the site's history, identified data gaps, called for additional sediment sampling to characterize the area extent and vertical depth of Consolidated Slip contamination.
Resource Conservation District of the Santa Monica Mountains	The district provides Volunteer water quality and biological monitoring and surveys of Malibu Lagoon.
RWQCB SWAMP	The RWQCB conducted SWAMP monitoring of the Dominguez Channel watershed in FY 03/04.
San Gabriel River Regional Monitoring Program Work Group (including many county, regional, and local agencies, municipalities, and advisory organizations)	The Work Group has developed a regional monitoring program for the San Gabriel River watershed and is now working on implementation. The monitoring program integrates with existing monitoring efforts. The monitoring approach includes use of random sites in order to assess overall watershed health as well as directed sites at high habitat value areas and at the base of sub-watersheds. Extensive monitoring data are available as part of NPDES monitoring and reporting programs.

Table 7-9. Recent Surface Water Quality Monitoring Programs (Continued)	
Lead Ageny Program	**General Overview**
Santa Monica Bay Restoration Commission (SMBRC)	The SMBRC is developing new sources and loading monitoring design for point and NPS ocean discharges from the Santa Monica Bay Watershed.
Santa Monica Bay Restoration Project (SMBRP)	SMBRP completed a marine resource inventory and habitat mapping (available on CD) for Santa Monica Bay. The objectives of these projects are to produce a detailed inventory of the bay's habitats and provide a baseline for the valuation of the bay's habitats.
Santa Monica BayKeeper	The Santa Monica BayKeeper provides volunteer monitoring of storm event sampling at over 30 Bay storm drains.
Southern California Coastal Water Research Project (SCCWRP)	SCCWRP has on going efforts to investigate the loading and impacts of stormwater runoff throughout the Region, including creeks in the Santa Monica Mountains.
Southern California Marine Institute (SCMI)	This strategic alliance of 12 major universities in southern California operates several monitoring programs: CI-CORE Ocean Observatory Program, Citizen Water Quality Monitoring, Demonstration Cruise Monitoring, NOAA's Volunteer Observing Ship (VOS) Program, and Rocky Intertidal Monitoring, Seasonal Bacteria Study.
Topanga Watershed Committee CWA 205(j) project	Volunteer baseline water quality monitoring for the past two years during both dry and wet weather.
U.S. Army Corps of Engineers	The U.S. Army Corps of Engineers has worked with UCLA to collect stormwater samples in Ballona Creek to calculate relative contributions of pollutant loadings from each tributary and major land use types.

review will also include assessment of duplicate data collection efforts in the watershed to identify opportunities for partnership and reduced costs.

Drinking Water Quality

Drinking water quality is monitored through the following means:

SDWA compliance monitoring and reporting. All public water systems are required to produce water that complies with the SDWA. To this end, specific monitoring is required and conducted routinely. Results of the monitoring are reported to the California DHS. In addition, monitoring information is required to be published in the annual Consumer Confidence Report (also required by the SDWA).

Unregulated Contaminant Monitoring Rule Results. The 1996 SDWA Amendments mandate that USEPA publish a list of unregulated contaminants that may pose a potential public health risk in drinking water. This list is called the Contaminant Candidate List (CCL). The initial 1998 accounting listed 60 contaminants. USEPA uses this list to prioritize research and data collection efforts for future rulemaking purposes. The 1996 SDWA amendments incorporated a tiered monitoring approach. The rule required all large public water systems and a nationally representative sample of small public water systems serving less than 10,000 people to monitor the contaminants.

Groundwater Contamination. Metropolitan Water District produces periodic summaries of groundwater contamination in southern California.

Water Supply. Sources of data for water supply quantities include individual agency UWMPs that are updated every 5 years, Metropolitan's IRP updates, and Metropolitan's IRP Report Card. These include the amount of single dry-year and multiple dry-year supplies developed to date, projected single dry-year and multiple dry-year demands over a 20-year planning horizon and the gap between the existing supplies and demands.

Integration into State Programs

Data collected to support future updates of the IRWMP will be organized in a format that is compatible with the following major State surface water and groundwater programs.

Surface Water Ambient Monitoring Program (SWAMP). Surface water data collected in conjunction with IRWMP updates will be organized consistent with SWAMP database comparability guidelines. Data will be collected in a manner that is compatible with the SWAMP database. Any IRWMP sampling activities will be performed according to SWAMP quality assurance requirements.

Groundwater Ambient Monitoring and Assessment (GAMA). Groundwater data collection in conjunction with updates of the IRWMP will be coordinated with the needs of the GAMA program so that the data can be integrated into the GAMA database. If needed, field sampling efforts will be coordinated with the GAMA program to eliminate duplicative data collection efforts and fill data gaps. Data will be consistent with GAMA database specifications so that it can be easily integrated and shared.

California Environmental Resources Evaluation System (CERES). Appropriate notice of data and reports developed in conjunction with the IRWMP will be provided to CERES so that information will be available and useful to a wide variety of users.

Data Gaps

In conjunction with the development of this plan, several data gaps were identified related to water resource management, including water supply, surface water quality, and habitat quantity and quality.

As noted in Section 2, because water agency boundaries are not aligned with the Region's boundaries, an estimate of the Region's water supply and demand was not readily available. Water supply and demand for the Region was estimated based on review of key documents, the results of a survey distributed to water agencies, and discussions with staff of water agencies. Future IRWMP updates should utilize a more precise methodology for estimating water supply and demand.

The description of surface water quality in the Region is based on the 303(d) of water quality impairments in the Region. As noted in several local watershed plans, the number of monitoring locations for surface water quality is limited and needs to be expanded in order to provide a more accurate assessment of water quality and assist in source identification. The monitoring plans developed in conjunction with TMDL implementation plans will result in additional monitoring locations and provide additional information that could be utilized in future IRWMP updates.

Although several federal, state and local agencies collect data with respect to the quantity and quality of habitat, currently no single entity can provide a comprehensive assessment of such data. The Green Visions Plan, a joint venture between the University of Southern California and the region's land conservancies, including the Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, Coastal Conservancy, and Baldwin Hills Conservancy, will provide a guide to habitat conservation, watershed health and recreational open space that includes planning and decision-support tools for the Los Angeles metropolitan region. Future IRWMP updates will benefit greatly from these data and tools.

7.9 Adaptive Management

To measure the performance of projects, the IRWMP, the implementation projects, and facilitate future adjustments to objectives, planning targets, or project priorities, a set of metrics has been established. Metrics at the plan level were developed based on the IRWMP objectives. At the project level, metrics were developed to measure individual project performance based on the established goals of each project. Monitoring programs at both levels are planned to collect performance-related data which will be analyzed and compared to the established metrics. Performance data will provide feedback into an adaptive management process that will be used to modify both project composition and priorities and the IRWMP based on actual results. This section describes the monitoring methods and programs that will be used to collect data and the mechanisms by which this data will drive future improvements to projects and the IRWMP. Table 7-10 summarizes project monitoring and program performance measures.

Table 7-10. Project Monitoring and Program Performance Measures

IRWMP Objective	Project Monitoring	Program Performance
Optimize local water resources to reduce the region's reliance on imported water	Number of water conservation devices provided Volume of recycled water distributed Volume of water created or stored	Total volume of total water supply created or conserved
Comply with water quality standards by improving the quality of urban runoff, stormwater and wastewater	Volume of stormwater captured Water quality parameter measurements	Total volume of total runoff captured, infiltrated, and/or treated Measured water quality improvements
Protect, restore and enhance natural processes and habitats	Acres of habitat restored Acres of habitat maintained Miles of river restored Water quality measurements	Miles of habitat created
Increase watershed-friendly recreational space for all communities	Acreage created	Total acreage created

An adaptive management process will be used to analyze project and plan performance and identify the need for modification of projects and/or the IRWMP.

The first level of response to performance will be at the project level. Agencies responsible for implementing projects have a vested interest in adjusting project operations for maximum benefit and also have familiarity with the technical aspects of the project. Documents that have been identified as the basis for scientific and technical merit for a project will be used to guide the response. Also sponsors of similar projects will be consulted. In addition, working groups will be formed to share information and experience regarding specific types of project issues. If certain projects do not perform as expected, then an alternate project may be designated to replace the underperforming project, if the costs are not prohibitive. This may cause a change in project sequence if the projects in question are addressing higher priority issues. Alternatively, if some projects exceed expectations or capacity, then investigation should be made to see if the project can be expanded. For instance, with stormwater capture projects it may be discovered that pollutant loading is higher than expected or the amount of water exceeds the design capture volume of a BMP. In this case, an additional or expanded BMP could be employed to take maximum advantage of the higher volumes.

Another response to performance data may be the realization that certain assumptions used to design and/or site the project were incorrect. As an example, TMDL implementation plans often use land use assumptions for initial BMP prioritization and placement. Once BMPs are in place, the data gained on the ground can be used to refine site selection. For instance, if a certain area is demonstrated to possess higher than assumed pollutant loads, then this information will also be fed back into the BMP prioritization database to allow updated models to be completed and new projects identified.

At the plan level, if the planning targets are not being met, then the particular program would need to be analyzed to determine if a more optimal mix of project types and/or water management strategies would offer improved results. Alternatively, the planning target may be adjusted if changed conditions or other factors warrant modification of the target.

If both project and plan level responses do not lead to satisfactory results, then a change in institutional structure may be appropriate. This could involve identifying and bringing on board missing players whose participation would improve success. Changes to the stakeholder process could be explored to bring new ideas. Finally, a change in governance structure or decision making process could be considered to bring a fresh approach.

7.10 Next Steps

The IRWMP will be implemented over the next 20 years through projects; non-structural programs; additional studies and planning, adaptive management; regular updates of the IRWMP; and stakeholder outreach. The IRWMP will require a number of coordinated actions to achieve successful implementation. A summary of potential IRWMP next steps is shown in Table 7-11.

Project Prioritization

As funding for project implementation becomes available, a list of candidate projects should be developed, and narrowed to a short list of projects that would form the basis of a grant application. This will require development of project prioritization criteria. Although no specific criteria have been developed to date, and future funding opportunities would provide specific criteria that would substantially affect any project ranking, the following conceptual prioritization criteria have been developed for consideration in the next phase of IRWMP development.

Conformity with Funding Criteria. It is expected that there will be various opportunities to secure local, state or federal funding for water management activities during the next 20 years. In many, cases opportunities will be focused on specific water management areas rather than the full range of areas. The Region may still choose to submit multi-purpose projects for consideration under those circumstances; however priority should be given to projects with the greatest probability for funding.

Readiness to Proceed. Factors that contribute to project readiness are included in the following: level of detail presented in planning documents; level of design and cost estimation; completion of site identification; completion of environmental compliance activities; and completion of any required permitting activities. Comparing project readiness should consider the context of the time needed to complete all the required activities. Project timelines can be compared to the schedule requirements of each funding effort. Priority should be given to those projects capable of meeting the schedule requirements.

Availability of Locally Required Cost Share. Availability may be judged by differing criteria under varying circumstances. For example, while matching funds may be required for planning activities a simple demonstration of the ability to raise implementation funds may also be important. However, when seeking funds to implement new projects, a demonstration of reserved funds or a formal commitment by a stakeholder group with access to adequate funding may be required. Priority should be given to projects having greater certainty of securing local funding.

Project Contribution to IRWMP Quantifiable Objectives. A project's contribution to water supply, water quality, habitat, open space, and/or infrastructure must be considered both in terms of the Region's quantifiable objectives and in the context of a given Subregion's needs and constraints. Priority should be given to projects that contribute to multiple objectives at the Subregional and Regional levels.

Benefit Cost Relationship. It is appropriate that both quantifiable and not-quantifiable benefits provided by projects be considered in relation to their costs. It is likely, at least initially, that lack of detailed data regarding all benefits could preclude a rigorous quantitative comparison of all projects. Subregions should include a qualitative assessment of each submitted projects' benefit cost relationship and a relative ranking of projects. Priority should be given to projects with relatively stronger benefit to cost ratio.

Strength of Local Support. Priority should be given to projects showing strong support from diverse groups in the local community and public sector.

The relative importance assigned to each of the above criteria would play a key role in determining which projects are selected for inclusion in funding applications. That relative importance or "weighting" will vary depending on potential funding sources and the planning horizon.

Plan Updates

The IRWMP will be updated as needed, as projects continue to be developed or funding opportunities arise, and when objectives or the planning targets

Table 7-11. Summary of Potential IRWMP Next Steps

Implementation Element	Implementation Objectives	Suggested Implementation Phase		
		Immediate Term	Near Term	Long Term
Coordination with Local Plans and Programs	• Demonstrate a high degree of coordination with local planning efforts. • Be consistent with locally expressed goals. • Utilize the results of local planning where possible.	• Identify additional future planning efforts and when results are expected. • Determine dates for General Plan updates. • Increase interagency communication and coordination where plans, studies and implementation projects overlap jurisdictions.	• Establish coordination and communication procedures with ongoing local planning efforts. • Establish quantifiable Subregional goals/ targets. • Create project "clearing house" to allow rapid identification of planned projects throughout the Region to avoid duplication and create opportunities for partnering.	• Integrate IRWMP into General Plan and UWMP updates. • Update IRWMP with updated Subregional goals. • Consider ordinances that require water savings devices or penalize water waste generation. • Expand incentives for conservation. • Consider assessing fines for runoff and providing public recognition for water conservation. • Evaluate changing the Covenants, Conditions and Restrictions (CCR) in many homeowners associations that restrict the ability to utilize native or water friendly landscaping. • Reassess grey water reuse opportunities.
Institutional Structure	• Achieve representation of all agencies and organizations necessary to ensure successful IRWMP execution. • Identify agency(ies) responsible for project implementation.	• Agree on structure and mechanism for future IRWMP governance. • Representation, roles and responsibilities. • Decision making procedure.	• Form JPAs where appropriate. • Form partnerships for combined development and implementation of projects with mutual benefits. • Examine current Leadership Committee Structure.	• Utilize adaptive management to determine appropriate institutional structures on a project or issue specific basis.
Coordination with State and Federal Agencies	• Achieve coordination with appropriate state and federal agencies. • Identify areas where state or federal agencies may be able to assist in communication or cooperation or funding. • Determine where state or federal agencies can assist in implementation of plan activities, components or processes.	• Identify further opportunities for coordination with state and federal agencies.	• Develop future projects with state and federal partners where mutually beneficial. • Pursue funding available through state and federal programs.	• Determine how state and federal agencies will influence long term project concepts. • Identify need for state or federal approval or assistance on existing projects.

Table 7-11. Summary of Potential IRWMP Next Steps (Continued)				
Implementation Element	Implementation Objectives	Suggested Implementation Phase		
		Immediate Term	Near Term	Long Term
Schedule	• Determine timelines for active or planned projects. • Ensure that IRWMP implementation schedule is coordinated with schedules for other water management activities in the Region and in the Subregions.	• Identify additional Regional or Subregional schedules or deadlines. • Determine periodic IRWMP "re-opener" periods that will allow for comprehensive updates of stakeholders, projects and implementation plans. • Establish Subregional funding priorities.	• Select projects that will help meet upcoming regulatory deadlines. • Select projects that are ready to proceed and are high priority.	• Determine the optimal combination of projects to meet long range deadlines. • Monitor/update project schedules and continue to identify needs and opportunities.
Financing	• Identify funding for plan implementation. • Determine opportunities for ongoing financing for O&M and maintenance of projects.	• Provide information on local potential funding measures (fees, assessments etc.). • Compile list of current grants being pursued.	• Develop detailed estimates of capital and O&M costs for existing projects. • Track all potential funding opportunities. • Develop innovative, multi-benefit projects to maximize opportunities for competitive funding. • Pursue special earmarks for specific projects.	• Determine the most cost-effective combination of projects that can achieve Subregional objectives.
Data Management	• Identify methods for efficient collection and dissemination of data. • Identify data gaps. • Determine how data collection will support statewide data needs. • Identify obstacles to sharing data between agencies and determine methods to remove them.	• Document known gaps in data. • Identify data overlaps. • Suggest opportunities for improved data sets. • Develop a data management collection and dissemination system for the Subregion. • Identify lead entity or entities to collect and manage data	• Utilize data to guide development of existing and future projects. • Develop project monitoring plans that can also fill data gaps, if possible.	• Identify long term trends for the Region and Subregion • Maintain data and continue to collect information.

Table 7-11. Summary of Potential IRWMP Next Steps (Continued)				
Implementation Element	Implementation Objectives	Suggested Implementation Phase		
		Immediate Term	Near Term	Long Term
Performance Measures	• Determine the appropriate measures to monitor for Regional and Subregional performance. • Provide mechanisms for adapting project operation in response to performance data. • Discuss results in an integrated fashion.	• Determine what performance measures are important for targets. • Determine what performance measures are appropriate for existing projects. • Identify potential project modifications in response to collected data.	• Measure performance of all benefits of multi-objective projects.	• Develop Regional and Subregional monitoring system. • Identify opportunities for coordinated Subregional responses to performance data.
Stakeholder Outreach	• Maintain contact and increase coordination with current participants. • Expand participation and increase project submission all cities and unincorporated areas. • Increase participation of Disadvantaged Communities.	• Continue outreach to all identified stakeholders on plan finalization and adoption.	• Create compelling case statement of benefits of participating in ongoing IRWMP process. • Continue outreach and briefings to key stakeholders that are not participating. • Intensify outreach to Councils of Government, watershed stakeholder groups, and other groups involved in area planning efforts.	• Continue to address barriers to participation including lack of resources; lack of information on how to engage, and language barriers.

need to be adjusted. As local and Subregional plans are completed, the recommendations and projects contained within those plans can be incorporated into the IRWMP through an update or amendment.

Ongoing Stakeholder Outreach

Stakeholder outreach will be a continued activity going forward. Involvement of stakeholders is critical for successful implementation as it provides opportunities for building local support by ensuring that local needs are being heard and addressed. Development of an outreach strategy will include expanding efforts to reach disadvantaged communities and gaining increased involvement of the many cities in the Region.

Implementation of Additional Projects

The projects identified during the Call for Projects represent a great potential source for achieving the IRWMP goals. All the projects are currently available for review on the Plan website. To make progress towards the plan's objectives and planning targets, individual projects included in the database could be implemented as funding becomes available. In addition, the project concepts included in the database could be further refined as more definitive projects. This could include some form of project development assistance to jurisdictions, agencies and stakeholder organizations.

At this point in time, no specific schedule has been developed for implementation of the 1,521 proj

ects and project concepts included in the database as part of this Plan. It is anticipated that additional projects will be identified and added to the project database over time, as project concepts are refined and developed, and to address changing conditions and needs in the Region.

Additional Planning

As noted in the Interim Draft IRWMP, substantial portions of the Region are covered by existing or in-progress watershed plans. Preparation of additional watershed plans is suggested for those watersheds not currently covered by a plan, including: Burbank (east and west) Wash, Verdugo Wash, the mainstem of both the Los Angeles and San Gabriel Rivers (although the respective river Master Plans cover the river corridors and some adjacent lands), the Upper Los Angeles River (not covered by the Tujunga Plan and the Headwaters Plan), Los Cerritos Channel, and numerous smaller watersheds that drain directly to Santa Monica Bay and San Pedro Bay. For the watershed plans that have already been completed, implementation is the next step, along with assessment of the impacts and realized benefits. Regular updates of the plans should be undertaken to account for these assessments, as well as changes in local conditions and modifications to the IRWMP regional objectives.

Section 5 (Regional Project Concepts) identifies three conceptual Regional Planning Tools (or approaches) which combine various project concepts to meet the established planning targets. Additional planning could refine the Regional Planning Tools into more specific solutions for each Subregion and thereby identify definitive projects which complement the stakeholder-identified projects, respond to local conditions and priorities, and fill the gap in benefits between those generated by the stakeholder-identified projects and the planning targets. As these projects are identified, they could be merged with, or where appropriate, replace some of the projects included in the project database to create a comprehensive project list which would achieve the objectives and planning targets.

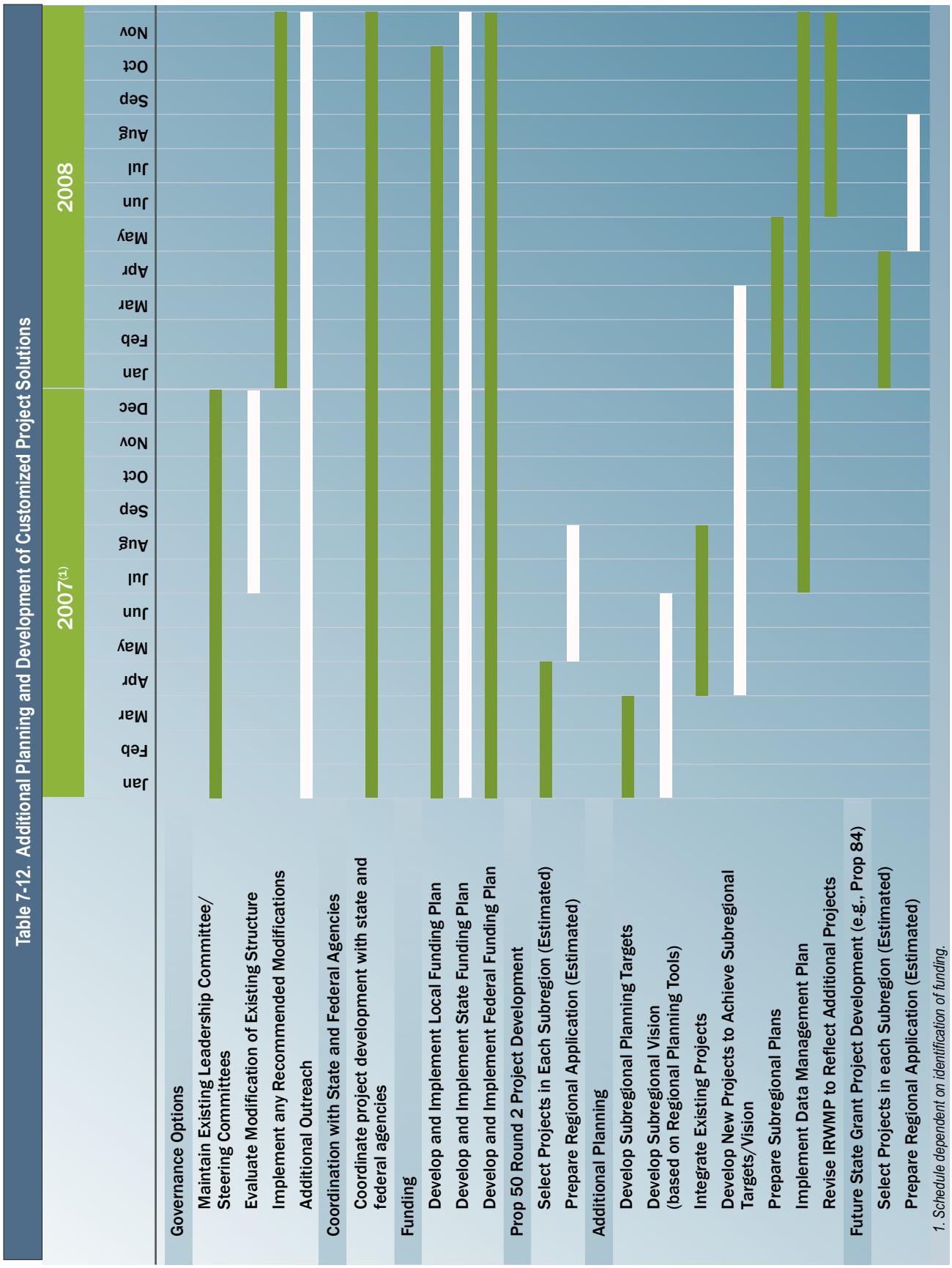
Habitat issues have traditionally been addressed at different levels, with jurisdictions planning their own boundaries and resource management agencies planning at levels larger than the Region. Although some habitat planning is ongoing, much of this is limited to specific areas (e.g., coastal wetlands or the National Forest), and has yet to address the difficult questions of conservation and preservation of habitat around and within the urbanized portions of the Region. Although some long-term goals have been suggested (e.g., more naturalized stream channels), little work has been done to articulate the precise elements of that vision, or to define incremental steps that would contribute to that long-term version. To ensure that habitat issues are addressed, the following steps should be taken:

- Develop a long term habitat/open space vision, with a clear scientific basis, and identify steps necessary to proceed with long-term regional planning;
- Define costs/benefits of, and establish targets for, achieving these goals;
- Identify additional studies to fill in gaps needed to completed the regional vision;
- Include assessment of on-going studies to help identify the goals (e.g., Green Visions Plan species mapping report);
- Define functional habitats; and
- Identify targets that help achieve the vision (e.g., removal of fish passage barriers).

7.11 IRWMP Schedule

Additional planning including development of customized project solutions for the Subregions is estimated to require approximately 18 months, which is illustrated in Table 7-12.

Table 7-12. Additional Planning and Development of Customized Project Solutions



1. Schedule dependent on identification of funding.