FINAL DRAFT

Southern California Water Recycling Projects Initiative

Financial Support Opportunities Technical Memorandum

COOPERATIVE EFFORT FUNDED AND MANAGED BY:

The United States Bureau of Reclamation

IN PARTNERSHIP WITH:

BIG BEAR AREA REGIONAL WASTEWATER AGENCY
CALIFORNIA DEPARTMENT OF WATER RESOURCES
CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS
CITY OF LOS ANGELES
CITY OF SAN DIEGO
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
ORANGE COUNTY SANITATION DISTRICT
SAN DIEGO COUNTY WATER AUTHORITY
SANITATION DISTRICTS OF LOS ANGELES COUNTY
SANTA ANA WATERSHED PROJECT AUTHORITY
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
YUCAIPA VALLEY MUNICIPAL WATER DISTRICT

MAY 2004

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Contents

Tables

Figures

Appendices

Abbreviations and Acronyms

AB 303	Local Groundwater Management Assistance Act of 2000
ac-ft	acre-foot
afy	acre-feet per year
AWWARF	American Water Works Association Research Foundation
BAU	basic assessment unit
BMP	best management practice
BOD	biochemical oxygen demand
CALFED	CALFED Bay-Delta Program
Caltrans	California Department of Transportation
CAP	Continuing Authorities Program
CBI	Clean Beach Initiative
CDBG	Community Development Block Grant
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CMUA	California Municipal Utilities Association
Committee	Water Recycling Funding Coordination Committee
COP	Certificate of Participation
CSCDA	California Statewide Communities Development Authority
CSDA	California Special Districts Association
CSO	Combined Sewer Overflow
CWA	Clean Water Act
CWD	County Water Department
CWSRF	Clean Water State Revolving Fund
DHS	Department of Health Services
DOT	Department of Transportation
DRIP	Desalination Research and Innovation Partnership

DWR	California Department of Water Resources
DWR-DPLA	California State Department of Water Resources, Division of Planning and Local Assistance
DWSRF	Drinking Water State Revolving Fund
EDA	Economic Development Administration
EDU	equivalent dwelling unit
ERU	equivalent residential unit
FAP	Financial Assistance Program
FARECal	Finance Authority for Resource Efficiency of California
FPGP	Facilities Planning Grant Program
FY	Federal fiscal year
GO	general obligation
gpd	gallon per day
HCD	California Department of Housing and Community Development
hcf	hundred cubic feet
HUD	U.S. Department of Housing and Urban Development
I-Bank	Infrastructure and Economic Development Bank
ICP	Innovative Conservation Program
ID	Irrigation District
IEMT	Initiative Executive Management Team
Initiative	Southern California Water Recycling Projects Initiative
ISP	Innovative Supply Program
ISRF	Infrastructure State Revolving Fund
ISTEA	Intermodal Surface Transportation Efficiency Act
IRS	Internal Revenue Service
JPA	Joint Powers Authority
LADWP	Los Angeles Department of Water and Power
League	League of California Cities
LRP	Local Resources Program
LWQA	Lake Water Quality Assessment

mg/L	milligrams per liter
MHI	Median Housing Income
MPO	Metropolitan Planned Organization
MSA	Metropolitan Statistical Area
MWD	Metropolitan Water District
MWDSC	Metropolitan Water District of Southern California
NEP	National Estuary Program
NEPA	National Environmental Policy Act
NICE3	National Industrial Competitiveness through Energy, Environment, and Economic
NPS	Nonpoint Source
O&M	Operation and Maintenance
OMB	Office of Management and Budget
PDR/TDR	Purchase/Transferable Development Right
PPIS	Pollution Prevention Incentives for States
PUD	Public Utilities District
Reclamation	United States Bureau of Reclamation
RFP	Request for Proposal
Proposition 13	Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act
Proposition 82	Water Conservation Bond Law of 1998
RWDF	Reclaimed Water Development Fund
SCIP	Statewide Community Infrastructure Program
SDCWA	San Diego County Water Authority
SFC	Sewerage Facility Charge
SSC	Sewer Service Charge
S/T/LGs	State, Tribes, Local Governments
STAG	State and Tribal Assistance Grants
SRF	State Revolving Fund
SuperNOFA	Super Notice of Funding Availability

SWRCB	California State Water Resources Control Board
Task Force	DWR 2002 Water Recycling Task Force
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TM	technical memorandum
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
WateReuse	WateReuse Association
WAG	Watershed Assistance Grant
WCIP	Wastewater Capital Improvement Program
WERF	Water Environmental Research Foundation
WPDG	Wetlands Program Development Grants
WRCP	Water Recycling Construction Program
WRDA	Water Resources Development Act
WRF Guidelines	Water Recycling Funding Guidelines
WWD	Water and Waste Disposal

1 Introduction

1.1 Contents of this Section

Project Background
Objective of Financial Opportunity Review
Economic Versus Financial Analysis Distinction
Summary of Funding Opportunities

1.2 Project Background

The Southern California Water Recycling Projects Initiative (Initiative) is a multiyear planning study that commenced in Federal fiscal year (FY) 2000. The project is funded as part of the Southern California Investigations Program and is managed out of United States (U.S.) Bureau of Reclamation's (Reclamation) Southern California Area Office. The Initiative is funded on a 50/50 percent cost-sharing basis between Reclamation and 11 local agencies and the State of California Department of Water Resources (DWR), who together form the Initiative's Executive Management Team (IEMT). Table 1.1 lists the 13 members of the IEMT. The purpose of the IEMT is to formulate, guide, and manage the technical activities of the project.

The Initiative is composed of two major components; a project-specific work component and a regional component. One of the regional components is to identify financial support opportunities for recycled water projects in southern California. Assisting local agencies with identifying funding opportunities is an important component of the IEMT goal of assisting local agencies to successfully implement water recycling projects. The results of this effort are summarized in this technical memorandum (TM).

Table 1.1 LIST OF IEMT MEMBERS

Big Bear Area Regional Wastewater Agency	San Diego County Water Authority
California Department of Water Resources	Sanitation Districts of Los Angeles County
Central/ West Basin Municipal Water District	Santa Ana Watershed Project Authority
City of Los Angeles	South Orange County Wastewater Authority
City of San Diego	U.S. Bureau of Reclamation
Metropolitan Water District of Southern California	Yucaipa Valley Municipal Water District
Orange County Sanitation District	

1.3 Objective of Financial Opportunity Review

The objective of the financial opportunity review is to provide an inventory and guide of financial options for implementation of recycled water projects. This review examines state, Federal, and local funding options available to the public and private sectors. In addition, nongovernmental sources for funding are investigated.

To achieve this objective, the following tasks were performed:

- Reviewed available information on funding sources
- Contacted providers of most-viable funding mechanisms
- Obtained sample applications and pertinent information for funding mechanisms where available
- Summarized information on each of the funding mechanisms

1.4 Economic Versus Financial Analysis Distinction

In many instances, the terms "financial" and "economic" analysis are used interchangeably when discussing implementation of projects. However, these terms describe very different aspects of project implementation. A project can be economically viable, but due to lack of funds, financially infeasible. Economic analysis refers to the evaluation on a societal level of costs and benefits of a project. When benefits equal or exceed costs for a project, the project is deemed economically viable. To be financially viable, a project must have the funds necessary

for implementation including construction, operation and maintenance (O&M), and recurring costs. This document addresses the financial analysis side of project implementation by identifying and describing funding sources that can assist in funding projects.

1.5 Summary of Funding Opportunities

This section summarizes the major funding sources reviewed in this TM that could be utilized for implementation of recycled water projects. Tables 1.2 to 1.5 summarize the local, state, and Federal government agencies, as well as nongovernmental entities, that can provide funding for recycled water projects. A detailed description of these funding sources is provided in Section 2 of this TM. In addition, Appendices A through D have specific information on each funding opportunity and Appendix E (published as a separate volume on a compact disc) contains example applications and other pertinent data for a number of the funding opportunities and informational sources.

TABLE 1.2 POTENTIAL LOCAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROGRAMS

Organization	Program
Metropolitan Water District of Southern California (MWDSC)	• City Makeover Program • Community Partnership Program • Innovative Conservation Program • Innovative Supply Program • Local Resources Program (LRP)
San Diego County Water Authority (SDCWA)	• Financial Assistance Program (FAP) • Recycled Water Development Fund (RWDF) Program

TABLE 1.3 POTENTIAL STATE FUNDING MECHANISMS FOR RECYCLED WATER PROGRAMS

Organization	Program
California State Department of Water Resources, Division of Planning and Local Assistance (DWR-DPLA)	• AB 303 – Local Groundwater Assistance Fund Grant Program • Proposition 13 Programs - Agricultural Water Conservation Capital Outlay Loan - Groundwater Storage Construction Grant - Groundwater Recharge Construction Loan - Infrastructure Rehabilitation Construction Grant - Infrastructure Rehabilitation Feasibility Study Grant - Local Water Supply Project Construction Program - Urban Water Conservation Capital Outlay Grant • Proposition 50 Programs • Proposition 82 Programs - Local Water Supply Project Feasibility Study Loan • Urban Streams Restoration Program
California State Water Resources Control Board (SWRCB)	• Nonpoint Source (NPS) Loan: Clean Water Act (CWA) 319(h) • Proposition 13 Programs - Water Recycling Facilities Planning Grant Program - Water Recycling Construction Program (WRCP) • Proposition 40 Programs - Clean Beach Initiative (CBI) • Small Community Grants • State Revolving Fund (SRF) Program - SRF Loan Program - Water Recycling Projects - SRF Program – Nonpoint Source Loan

TABLE 1.4 POTENTIAL FEDERAL FUNDING MECHANISMS FOR RECYCLED WATER PROGRAMS

Organization	Program(s)
U.S. Army Corps of Engineers (USACE)	• Section 206 Aquatic Ecosystem Restoration • Section 503 Watershed Management, Restoration, and Development (Order 96-Water) • Section 1135 Project Modifications for the Improvement of the Environment • Water Resources Development Act (WRDA), Section 219- "Environmental Infrastructure"
U.S. Bureau of Reclamation	• Title XVI - Reclamation Wastewater and Groundwater Study and Facilities Act
U.S. Department of Agriculture (USDA) – Rural Development (formerly the Farmers Home Administration) and Natural Resources Conservation Service	• Water and Wastewater Disposal Loans and Grants Program
Department of Commerce, Economic Development Administration	• Economic Development Administration (EDA) Fund • Grants for Public Works and Economic Development
U.S. Department of Energy	• National Industrial Competitiveness through Energy, Environment, and Economics (NICE3)
U.S. Environmental Protection Agency (USEPA)	• Brownfields Economic Redevelopment Initiative • Clean Lake Grants Program • Clean Water Act (CWA) Section 104(b)(3) - Wetlands Program Development Grant (WPDG) • Clean Water State Revolving Fund • Drinking Water State Revolving Fund • Environmental Education Grants Program • National Estuary Program (NEP) • Nonpoint-Source Water Pollution Control • Pollution Prevention Incentives for States (PPIS) • State and Tribal Assistance Grants (STAG) • State and Tribal Enforcement Grant Program • Water Quality Cooperative Agreements under Clean Water Act 104(b)(3) • Watershed Assistance Grant (WAG)
U.S. Department of Housing and Urban Development (HUD)	• Community Development Block Grant (CDBG) Program • HUD Grant for Construction of Wastewater Treatment Facilities • Super Notice of Funding Availability (SuperNOFA)
U.S. Department of Transportation (DOT)	• Metropolitan Transportation Improvement Program - Transportation Equity Act for the 21st Century (TEA-21)

TABLE 1.5 POTENTIAL NONGOVERNMENTAL FUNDING MECHANISMS FOR RECYCLED WATER PROGRAMS

Organization	Program(s)
California Municipal Utilities Association (CMUA)	• Financing Authority for Resource Efficiency of California (FARECal)
California Special Districts Association (CSDA)	• CSDA Finance Corporation's Program
League of California Cities	• California Statewide Communities Development Authority (CSCDA)
WateReuse Foundation	• Research Contracts

Most of the funding sources outlined in Tables 1.2 to 1.5 are for the treatment, storage, and conveyance of recycled water. However, there is also a need for funding to assist recycled water users in retrofitting or constructing the necessary facilities required to utilize recycled water. This type of funding is limited and generally provided at the local government level. Agencies that provide these programs include, but are limited to, the City of San Diego, San Elijo Joint Powers Authority, and Irvine Ranch Water District. Funding for retrofit can be provided using grants, revolving loan programs, or cost incentives. Cost incentives can be provided as reduction in water costs below potable prices and/or reductions in the price of recycled water provided to offset the costs incurred from retrofitting. In addition to the funding sources outlined in Tables 1.2 to 1.5, potential additional funding mechanisms are listed in Table 1.6.

The fundamental point to consider when determining the type of funding program(s) that might be appropriate for an agency is that the funding program period must coincide with the project term. Individual circumstances of each agency will determine the most probable sources of recycled water capital funds. It is almost certain that in each case the sources of funding and revenue support will come from a combination of internal and external funding. An issue to consider when combining funding sources is timing. Timing is important because funding sources may not have available funds or the application dates may fall either before a project has the necessary information available to submit an application or after financing has to be secured for the project. For example, if an agency has an urban irrigation project that will be ready for construction in the Fall of 2004 then submitting an application for a Groundwater Assistance Fund Grant, whose application period is in the Spring of 2005,

TABLE 1.6 POTENTIAL ADDITIONAL FUNDING MECHANISMS

Name	Description
Recycled Water	
Reclaimed Water Fees	Fees assessed to recycled water users are used to fund all or a portion of the project.
Grant	The project is funded with money from local, state, or Federal government and requires no repayment.
Wastewater	
Sewer Service Charges	Charges assessed to sewer service users are used to fund all or a portion of the project.
Revenue Bond Long Term Debt	Future revenues from the project's operation are pledged as collateral for a bond, which is used to fund the project.
Grant	The project is funded with money from the local, state, or Federal government and requires no repayment.
Direct Federal Appropriations	The project is funded in the Federal budget through a direct appropriation from the Congress.
Direct State Appropriations	The project is funded in the state budget through a direct appropriation from the legislature.
Privatization	Privatization, as defined by USEPA, is the "the disposition or transfer of an infrastructure asset, such as by sale or by long-term lease, from a state or local government to a private party."[1]
Special Reserves	A portion of user fee revenues and interest earnings is set aside in a reserve fund to pay for a specific project.
Special Assessments	The project is funded through fees, which are assessed to a specific geographical area that will utilize the service or infrastructure.
Pay-as-you-go	Project is funded through annual tax and other revenue sources.
Stormwater	
Stormwater Utility Fees	The project is funded through fees, which are assessed to stormwater utilities that use stormwater infrastructure.
Grants	The project is funded with money from the local, state, or Federal government and requires no repayment.
System Development Charges (or Capital Recovery Charges)	Assessment or recovery of charges for capital improvement projects is delayed until a property owner or user begins using the infrastructure.
Impact Fees	The project is funded through fees, which are assessed to developers based on impact of a development on an agency's infrastructure.
Special Purpose Local Option Sales Tax	Sales-tax revenues are used to fund either the capital project directly or to provide debt service for bonded improvements.

Source: *City of Los Angeles Integrated Resource Plan (Full Table provided in Appendix F)*

[1]Federal Executive Order 12083, 1992.

would be ineffective. Submitting the application would be ineffective because (1) the funding is for groundwater projects not urban irrigation projects, (2) the funding application due date occurs to far after the project will be ready to submit an application, and (3) the grant is for a feasibility study and not project construction.

The financial opportunities analyzed in this TM will provide southern California agencies with financial resource information that may be available for recycled water projects. The potential strategies for obtaining additional funding to meet expanded project needs and the potential restrictions concerning fund availability for recycled water projects are discussed in detail in Section 2 and the Appendices. Many of these programs are subject to change or require periodic legislative renewal. Therefore, contact information has been supplied so that agencies can verify information regarding the current years program funding and requirements.

2 Funding Opportunities

2.1 Contents of this Section

2.2 Introduction

This section describes the potential sources of funding available as well as the strategies for obtaining funding for recycled water projects from local, state, Federal, and nongovernmental funding programs. The primary government funding agencies for recycled water projects in southern California are local agencies, the California State Department of Water Resources, the California State Water Resources Control Board, U.S. Environmental Protection Agency, and the U.S. Bureau of Reclamation.

The funding opportunities described in this section all require economic analysis and have different selection criteria for project funding. Requirements for the type of analysis and data contained in an economic analysis will vary based upon what the specific funding agency requires in the application. The California Urban Water Agencies has developed the *Urban Water Recycling Feasibility Assessment Guidebook*, which provides the framework for conducting a project's economic analysis. A copy of this guidebook has been included on the Funding Applications Forms CD in Appendix E.

2.3 Methods of Funding Projects

In the past 15 years, southern California agencies have typically used the following funding mechanisms to finance capital improvement programs:

- Cash (collected as user fees or connection fees)
- Bonds
- State Revolving Funds (Loans)
- Grants
- Contract Agency Fees

These types of funding mechanisms are also applicable to recycled water projects. A brief description of these types of funding mechanisms is provided below.

Cash Contributions—Cash contributions to the capital improvement program (CIP) from some agencies include revenues from operations plus interest income minus operating expenses and debt service charges. The sources of revenues for agencies could include sewer service charges and fees including:

- Sewerage Facility Charge (SFC)
- Sewer Service Charge (SSC)
- Industrial Waste Quality Surcharge
- Industrial Waste Permit Application, Inspection, and Control Fees
- Connection Fees
- Miscellaneous Fees

The City of Los Angeles' current rate structure and discussion of their fees and charges is contained in Appendix G as a sample. This information is from the City's *Draft Wastewater Plan*.

Bonds—An agency has the authority to issue bonds for capital improvement projects. There are several types of bonding powers available to agencies to support recycled water projects. The most common type of tax-exempt revenue bonds are those funded by the service fees and charges paid by the system customers. Bonds are issued through financial institutions.

Loans— Loans are available from a variety of sources including the California State Revolving Fund and the Infrastructure State Revolving Fund (ISRF). SRF loans are administered by the State Water Resources Control Board and are intended to fund a variety of projects. SRF programs can offer low or zero interest loans, as well as provide guarantees of repayment, bond insurance, and refinancing of existing debt under certain conditions.

Grants— Grants are typically money from governmental agencies given to agencies for specific projects and require no repayment. The most common forms of grants are the Federal wastewater construction grants and state proposition funds.

Contract Agency Fees— These fees are similar to user fees except the contractors are not located in the agency's primary service area. The contractors are users of an agency's infrastructure or services that are located outside of the primary service area of the agency. These users are assessed fees to use the infrastructure based on negotiated contracted rates with the agency owner.

Alternative capital and revenue sources may be used to provide additional or diversified sources of funding on favorable terms for recycled water or wastewater capital improvement programs (WCIP). Appendix H provides in-depth descriptions of the potential funding availability for recycled water or wastewater CIP for both the funding mechanisms described in the preceding paragraphs as well as additional mechanisms including Special Purpose Local Option Sales Tax, Privatization, and Cooperative Funding Alliances. Interagency agreements can be expanded to generate the dedicated revenue stream needed to repay financing costs over the useful life of the projects. A menu of potential funding options, which was developed as part of the *City of Los Angeles Integrated Resource Plan*, is provided in Appendix I.

2.4 Strategies Used to Secure Funding

The basic strategies used to secure funds for recycled water projects are similar for local, state, Federal government programs, and nongovernmental programs. This section outlines the basic steps required to secure funding to implement a recycled water project. Figure 2.1 shows a process diagram of the nine basic steps to use to secure funding.

1. **Define Project Need or Driver:** Successful funding efforts need to be built on and around a specific need or driver. If the recycled water project has another component (i.e., stormwater, environmental) then multiple drivers and projects could be identified, potentially with multiple funding opportunities.
2. **Identify Potential Funding Sources:** It is important to learn the funding system and understand how resources are allocated. In many situations more than one funding mechanism or system can work together to be effective in securing funds for a project. When determining funding sources the following questions are pertinent:
   - What are the agency's internal resources?
   - Can the agency pay for any part of the project?
   - Is the project eligible for the grant or loan?

   It is also important to identify available resources. To do this, the following questions should be addressed.

   - What is the most likely source(s) of funding (i.e., local, state, Federal agencies, or nongovernmental organizations)?
   - Has this source been approached before? Was it successful? What problems were encountered? Who was the contact person?
   - Are there other funding sources available?
   - Will the funding agency accept a lesser payment and finance the remainder?
   - Have the policies, practices, and coverage of the funding source(s) been reviewed?
   - Is it possible to coordinate two funding sources? Some funding sources generally will only pay up to a certain percentage of the project.
   - Are there organizations, foundations, or associations in the area that can help raise the necessary funds for the project?
3. **Does the Project Meet the Funding Criteria?:** It is important to assess if the project will meet the criteria set forth in the funding mechanism by the funding agency. Only those funding sources for which the project can meet the funding criteria should be investigated.
4. **Collect the Required Paperwork and Become Familiar with the Application Process:** It is important to find out from the funding source exactly what is required prior to submitting the request. The funding source needs to be researched to determine their policies and

practices. One of the most successful approaches to developing relevant material for a funding application is planning and working as part of a team with the funding entity.

5. **Develop a Documentation Checklist:** Organizations will prioritize and move projects along only when all of the paperwork is submitted. A documentation checklist that is attached to the application file can help to ensure that all of the paperwork has been completed prior to submission.
    - **Follow Guidelines to Develop Application:** One of the biggest issues in obtaining funding is to follow the directions outlined by the funding agencies. Surveys have found that the most common reason proposals are rejected is because the guidelines of the funding organization have not been followed. For this reason, it is estimated that only 30 to 40 percent of proposals will be funded. In addition, it is very important to know how to write an effective justification. One highly effective method to develop an effective justification is to follow the format of both the form and content of an application that was previously submitted to the agency and was successful in receiving funding. Another important component to an effective justification is to insure that the project activities are eligible for funding. For this reason, it is important to know the language of the funding agencies.
6. **Search for Co-Payment Options:** More than one funding source may need to be approached at the same or different times in an effort to secure adequate funding for the project. After identifying, evaluating, and justifying the need for the project, a formal request can be submitted to the funding agency, which will initiate the application process. Included in the funding application should be all the information discussed above and any additional information required by the funding agency. If external funding is critical to the success or implementation of the project, it may be necessary to identify additional potential funding opportunities. These additional sources may be necessary because the primary funding agency may either not approve funding for the project or may approve funding for only a portion of the project. In addition to other funding agencies, other mechanisms such as loans, bonds, or user fees can also assist in raising funds to cover project costs.
7. **Submit Funding Application:** Once all the information is developed for the application, it should be submitted to the funding agency.

8. **Appeal Application Denial:** It is common for initial applications to be denied funding. In most cases there is an appeal process that can be followed after receiving a denial. Often a denial for funding is due to a lack of understanding or knowledge about the project by the reviewers at the funding source. Typical questions arising from denials include:
   - Was the application and project justification clear and effective?
   - Was there a lack of understanding or confusing language used in the application?
   - Did the submittal contain all the required information?
   - Did the project fit the funding requirements and criteria?
   - It is important to know why a request is denied and to determine if supplying additional information would assist in reversing the denial.

9. Sign Funding Agreement and Start Project

Funding for projects can often be on a time restriction or be tied to annual budget approvals. For this reason, agencies need to be fully aware of any such restrictions and their potential impacts to project implementation. The following sections provide general information on potential funding opportunities that are available for water recycling projects.

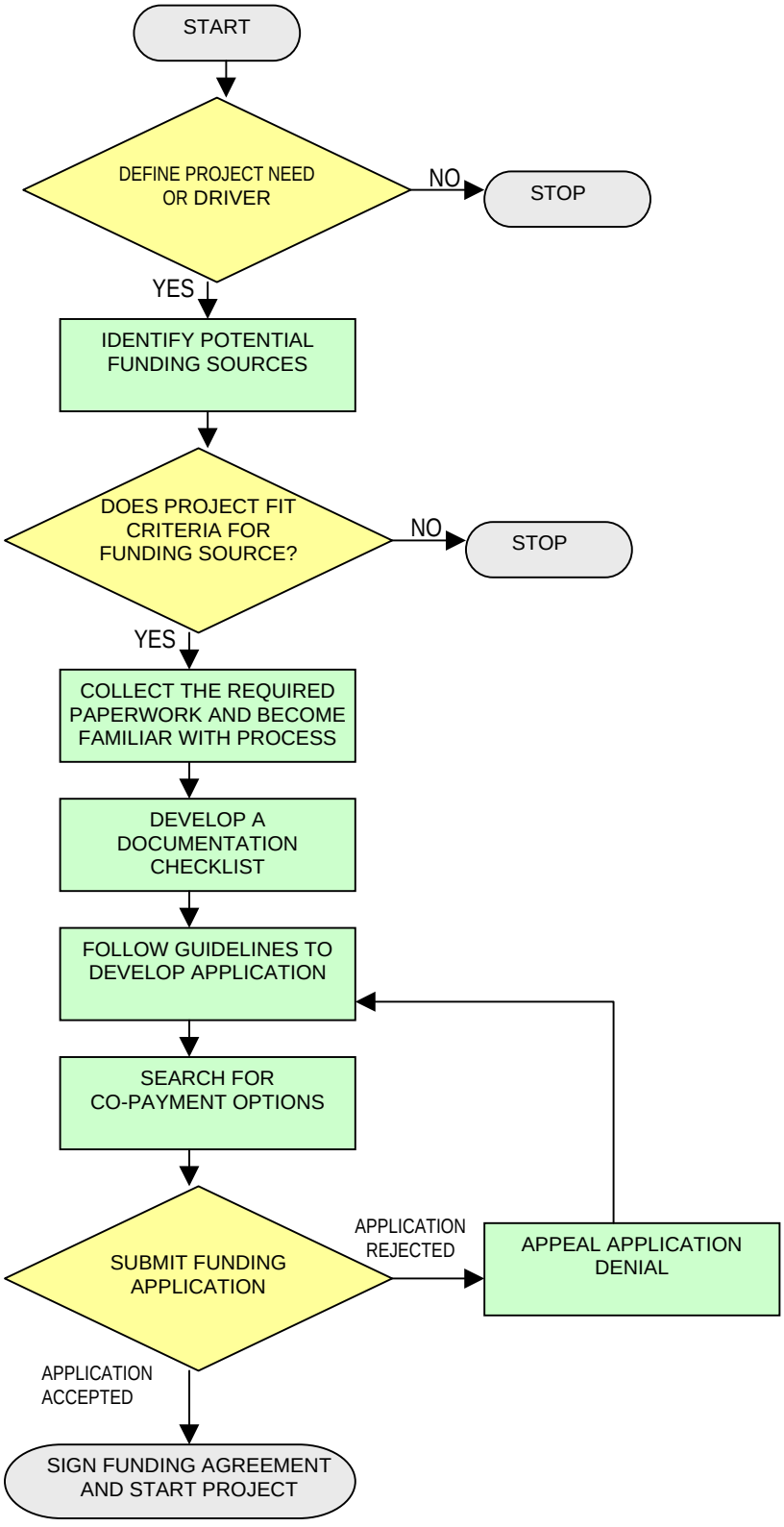
2.5 Solicitation of Potential Funding Sources

In the development of this TM, a questionnaire was created to solicit information regarding funding sources for recycled water projects. The category and type of information collected in this endeavor is provided in Table 2.1. The actual questionnaires for each of the funding sources are collected in a separate reference document entitled *Financial Support Opportunities TM – Background Information*. Only information available at the time that the research was conducted was provided on these forms; therefore, some tables may contain categories with minimal to no information.

2.6 Local Government Funding Sources

There are two local agencies in southern California that provide funding for recycled water projects. Mainly, these agencies are the Metropolitan Water District of Southern California and the San Diego County Water Authority. Contact information for these local government

FIGURE 2.1 PROCESS DIAGRAM FOR SECURING PROJECT FUNDING



Notes:

This diagram is designed to provide a systematic process in securing funds from potential funding sources from local, state, Federal, and non-governmental funding programs. In reality, the process is project specific and is based on the project's criteria and eligibility.

TABLE 2.1 QUESTIONNAIRE USED FOR POTENTIAL FUNDING SOURCES

Funding Agency	What is the name of funding agency?
Program Name	What is the name of the funding program?
Eligibility	What are the specific eligibility requirements?
Purpose	What is the stated purpose of the funding program?
Examples of Previous Projects	What are example projects that have applied previously and received funding from this program?
Potential Applications to Reuse Projects	What is the potential seen for applications of funding to recycled water projects (i.e., feasibility studies, construction, and public information and education}?
Information Source	Where are informational resources available on this program?
Person to Contact	Who is the contact person with direct responsibility for the funding program(s)?
Application Acceptance Period	What is the application period?
Application Process	What is the application process?
Sample Application Available?	Is an electronic copy of the application available?
Selection Criteria	What are the selection criteria for awarding the funding?
Notification Time	What is the time between notification and selection?
Type of Award	Is the award a loan or a grant?
Size of Awards	What is the potential size of the award?
Duration of Award	What is the period of the award?
Potential for Longevity	What is the potential that this award can be re-awarded for long-term projects? Is there a re-submittal process and have previous projects had to re-compete for the award?
Ineligible Uses	What are the types of projects, areas, or agencies that would not qualify for this award?
Environmental Documentation Required?	Is California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA) a requirement for funding? If not, then list other environmental documentation that is required.
Notes:	Is there any other relevant information?

funding programs are provided in Appendix A and the applications forms are provided in Appendix E. A summary of the local government funding sources and the availability of funds is provided in Table 2.2. The MWDSC and SDCWA have funded a number of projects that have been successfully implemented. Table 2.3 provides examples of successfully implemented projects. The MWDSC Local Resource Program and the SDCWA Financial Assistance Program and Recycled Water Development Fund are the primary sources of funding from these agencies

for recycled water projects. Sections 2.6.1 and 2.6.2 describe the funding available from the MWDSC and SDCWA.

TABLE 2.2 SUMMARY OF LOCAL GOVERNMENT FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount per Agency
Metropolitan Water District of Southern California	Grant	City Makeover Program	Annual	$20,000 to $70,000
	Grant	Community Partnership Program	Yearly in Fall/Winter	Up to $15,000
	Biannual Grant	Innovative Conservation Program	Annual	Dependent upon Program Budget
	Grant RFP	Innovative Supply Program	Request for Proposal (RFP) in April Due Date Is November	Up to $250,000
	Grant	Local Resources Program	As Needed Last Application Period Ended December 1, 2003	$0 to $250 per Acre-foot (ac-ft) of Water Produced Average Was $110/ac-ft
San Diego County Water Authority	Loan Grant	Financial Assistance Program	Twice Per Year - Open Application	For Loans (Studies): Up to $50,000 For Groundwater Basin, or Seawater Desalination Projects: Up to $150,000 For Grants (Research): Up to $25,000
	Performance based Grant	Recycled Water Development Fund Program	Continuously Upon Request	Up to $100 per ac-ft of Project Yield

TABLE 2.3 EXAMPLES OF SUCCESSFUL FUNDING - LOCAL GOVERNMENT PROGRAMS

Local Government Programs	Examples of Previous Projects
Metropolitan Water District of Southern California	
Community Partnership Program	Hurst Ranch Historical Foundation Water-Saving Gardens Education Exhibit Rancho Santa Ana Botanical Garden Horticulture Series City of Oxnard Sponsorship of Groundwater Recovery Enhancement and Treatment Program Outreach Effort for Support of Potential Reclaimed Water Customers
City Makeover Program	Buena Vista Lagoon Nature Center Native Plant Area San Gabriel River and Angeles National Forest Gateway Interpretive Center Camrosa Conservation Landscape Retrofit
Local Resources Program	Harbor Water Recycling Project – 5,000 Acre-feet per Year (afy) of Recycled Water for Seawater Intrusion Barrier and for Industrial Uses Escondido Regional Reclaimed Water Project – 2,800 afy of Recycled Water for Irrigation of Parks, Golf Courses, and Freeway Medians
San Diego County Water Authority	
Recycled Water Development Fund Program	Rincon Del Diablo Water Recycling Project - Construction of a Distribution System That Will Deliver Approximately 425 afy of Recycled Water North City Water Reclamation Project – Construction of a Distribution System, Storage Tanks, and Pump Stations to Ultimately Deliver Approximately 17,500 afy of Recycled Water
Financial Assistance Program	Master Plans – Preparation of Recycled Water Master Plans by the Cities of Carlsbad, Oceanside, Poway, and San Diego, as well as the County of San Diego, Padre Dam Metropolitan Water District (MWD), Ramona MWD, and Vista Irrigation District (ID) Groundwater Basin Studies by the Olivenhain MWD, Padre Dam MWD, Sweetwater Authority, Tia Juana Valley County Water District (CWD), Yuima MWD, and the Cities of San Diego and Oceanside Research on Desalination of Recycled Water and Brackish Groundwater – by the Sweetwater Authority and the Cities of San Diego and Oceanside

2.6.1 Metropolitan Water District of Southern California

The MWDSC provides a number of funding opportunities for activities that create new sources of water. The main funding opportunity for recycled water is through the Local Resources Program. The LRP provides funding for projects, up to $250 per ac-ft of product water that develops new water supplies and improves regional water supply reliability and cost by reducing requirements for future capital improvements and water importation. To qualify for LRP funding a project must be within the MWDSC service area. The 26 agencies that are members of MWDSC are listed in Table 2.4.

TABLE 2.4 LIST OF MWDSC MEMBER AGENCIES

Calleguas Municipal Water District	City of Santa Ana
Central Basin Municipal Water District	City of Santa Monica
City of Anaheim	City of Torrance
City of Beverly Hills	Eastern Municipal Water District
City of Burbank	Foothill Municipal Water District
City of Compton	Inland Empire Utilities Agency
City of Fullerton	Las Virgenes Municipal Water District
City of Glendale	Municipal Water District of Orange County
City of Long Beach	San Diego County Water Authority
City of Los Angeles	Three Valleys Municipal Water District
City of Pasadena	Upper San Gabriel Valley Municipal Water District
City of San Fernando	West Basin Municipal Water District
City of San Marino	Western Municipal Water District of Riverside County

MWDSC sends out RFPs on an as-needed basis. The last application period for the LRP was in 1998. This request focused on projects that could generate up to 50,000 afy of water. Recently, MWDSC released a request for proposal for projects that could generate up to 65,000 afy of supply of reclaimed water. The application period for this program ended in December 2003. The proposals will be competitively ranked based on which project best serves the region. New or expansion of existing projects are eligible to propose for this funding.

In addition to the LRP, the MWDSC offers a number of smaller programs that could potentially provide funding for recycled water projects. These programs include:

- ***Community Partnership Program –*** Small grants and sponsorships for programs that encompass education, research, and community-related activities to encourage discussion and involvement in regional water issues, including water recycling. This program is available to nonprofit organizations.

- ***Innovative Supply Program –*** This is a pilot program introduced in 2003 whose continuation will be determined in the future. The program has a total of $250,000 for grant allocation to develop concepts and innovative ideas that have a potential to produce new sources of water supply for southern California. However, projects that could be eligible under other MWDSC programs are not eligible for this program. Since it is a new program, the requirements have not yet been fully defined. Year 2003 applications for this program were accepted through November 3, 2003.

- ***Innovative Conservation Program –*** This is a biannual grant program that encourages development of water conservation technologies, with special consideration given to projects promoting water-landscape saving products or technologies. This program could be utilized for recycled water projects; however, showing applicability may be difficult.

2.6.2 San Diego County Water Authority

The SDCWA mission is to provide a safe and reliable supply of water to its 23 member agencies in the San Diego region. Table 2.5 provides a list of the SDCWA member agencies. There are two key financial assistance programs available to SDCWA member agencies including the SDCWA Financial Assistance Program and Recycled Water Development Fund. Together, these programs offer funding assistance for all project phases, from initial planning and design to construction and operation.

TABLE 2.5 LIST OF SDCWA MEMBER AGENCIES

Carlsbad Municipal Water District	Rainbow Municipal Water District
City of Del Mar	Ramona Municipal Water District
City of Escondido	Rincon del Diablo Municipal Water District
City of Oceanside	San Dieguito Water District
City of Poway	Santa Fe Irrigation District
City of San Diego	South Bay Irrigation District (member of Sweetwater Authority)
Fallbrook Public Utilities District (PUD)	Sweetwater Authority (also represents the City of National City and South Bay Irrigation District)
Helix Water District	Vallecitos Water District
National City (member of Sweetwater Authority)	Valley Center Municipal Water District
Olivenhain Municipal Water District	Vista Irrigation District
Otay Water District	Yuima Municipal Water District
Padre Dam Municipal Water District	

Financial Assistance Program

The FAP provides loans to SDCWA member agencies for facilities planning, feasibility investigations, preliminary engineering studies, and research projects related to water recycling, groundwater development, and seawater desalination. The SDCWA provides funding on a 50/50 cost sharing basis up to $50,000 for any given project activity. The total FAP funds allocated to one water recycling project or groundwater basin cannot exceed $150,000. Agencies receiving FAP funds are required to reimburse the SDCWA when implementation of the project results in funding from other sources or within 5 years of certification of the environmental impact report for the project, whichever occurs first.

FAP funds are also available as a grant for research and development. In order to receive a FAP grant, a local agency must have secured partial funding from at least one other source such as the American Water Works Association Research Foundation (AWWARF), Desalination Research and Innovation Partnership (DRIP), Water Environmental Research Foundation (WERF), or Proposition 13. Two or more local agencies grouping together for research and development studies are not required to

secure funding from other sources. Funding grants are limited to 25 percent of the remaining local agency study cost, up to a maximum of $25,000.

Recycled Water Development Fund

The RWDF program was initiated to support the development of cost effective-water recycling projects that prevent or reduce a demand for imported water and improve regional water supply reliability. The RWDF program is a revenue based program where project expenses must exceed the revenues of the project to qualify for funding. A project will be eligible to receive RWDF incentives if the cumulative net balance for the coming fiscal year is projected to be less than zero (i.e., if cumulative project costs exceed cumulative project revenues). The maximum incentive contribution rate is currently set at $100 per ac-ft of project yield capable of relieving a SDCWA water supply demand. The RWDF program has agreement terms up to a maximum of 25 years. An agency will be eligible to receive funding for 25 years provided the project has a financial need. If the project does not demonstrate a financial need in any given year, then funding will not be allocated for that specific year.

2.7 State Government Funding Sources

California is one of the national leaders in terms of the size and volume of statewide water, wastewater, and recycled water funding programs. A larger portion of the funding for these programs are from grants from statewide general obligation (GO) bond issues. Specific allocations of funds from these voter approved statewide general obligation bond issues are often specified in the ballot language. If funding allocation is not determined in advance, funding allocations are determined either through legislative appropriation or through prioritization by the California State Water Resources Control Board or other California State agencies such as the Department of Water Resources.

There are a number of options for funding recycled water projects through state funding sources. Typically, local agencies apply for funding from programs administered by SWRCB, DWR, California Department of Parks and Recreation, California Housing and

Community Development (HCD), or the California State Coastal Conservancy. A short description of potential available funding sources is presented in Section 2.7.1 through Section 2.7.2. Contact information for state funding programs are provided in Appendix B and the applications forms are provided in Appendix E. State governmental funding sources summarized in Table 2.6, and Table 2.7 provides examples of projects that have successfully received funding from state government programs.

TABLE 2.6 SUMMARY OF STATE FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount Per Project
California Department of Water Resources, Division of Planning and Local Assistance	Grant	AB 303-Local Groundwater Assistance Fund Grant Program	Continuous	Up to $250,000
	Loan	Proposition 13 - Agricultural Water Conservation Capital Outlay Loan	Continuous	Up to $5 Million *(Note: 2003 Was the Last Year of Funding)*
	Loan	Proposition 13 Program - Groundwater Recharge Construction Loan	Applications Due on June 5, 2003	Up to $5 Million *(Note: 2003 Was the Last Year of Funding)*
	Grant	Proposition 13 Program - Groundwater Storage Construction Grant	Applications Due on June 5, 2003	Up to $50 Million *(Note: 2003 Was the Last Year of Funding)*
	Grant	Proposition 13 Program - Infrastructure Rehabilitation Construction Grant	Continuous	Up to $5 Million *(Note: 2003 Was the Last Year of Funding)*
	Grant	Proposition 13 Program - Infrastructure Rehabilitation Feasibility Study Grant	Continuous	Up to $100,000 *(Note: 2003 Was the Last Year of Funding)*
	Loan	Proposition 13 Program - Local Water Supply Project Construction Program	Continuous	Up to $5 Million *(Note: 2003 Was the Last Year of Funding)*
	Grant	Proposition 13 - Urban Water Conservation Capital Outlay Grant	Applications Due on December 3, 2002	Up to $5 Million *(Note: 2003 Was the Last Year of Funding)*
	Loan	Proposition 82 Program - Local Water Supply Project Feasibility Study Loan	Continuous	Up to $500,000
	Technical Assistance and	Urban Streams Restoration Program	Continuous	Up to $1 Million

TABLE 2.6 SUMMARY OF STATE FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount Per Project
	Grant			
California State Water Resources Control Board	Loan	Nonpoint-Source Pollution: CWA 319(h) Loan Program	RFP in Early Spring Submittal Due in Late Spring	Varies by Year and Budgeted Amount
	Loan	Proposition 13 - Water Recycling Construction Program	Upon Request	Up to $10 to 15 Million per Project for Loans Up to $5 Million per Project for Grants Currently No Funds Available Funds Will Become Available When Current Loans Are Repaid
	Grant	Proposition 13 - Water Recycling Facilities Planning Grant Program	Continuous	Up to 50 Percent of Eligible Costs to a Limit of $75,000
	Grant	Proposition 40 Program - Clean Beach Initiative	Ongoing	$46 Million through Proposition 40
	Grants	Small Community Grants		Up to 97.5 Percent of the Eligible Cost and Up to $3 Million Per Qualifying Agency
	Loan	State Revolving Fund Program	Continuous	$200,000 to $40,000,000
	Loan	SRF Program - Nonpoint Source Loan		
	Loan	SRF Loan Program - Water Recycling Projects	Upon Request	Up to $25 Million

TABLE 2.7 EXAMPLES OF SUCCESSFUL FUNDING - STATE PROGRAMS

State Program	Examples of Previous Project
State Water Resources Control Board	
Water Recycling Facilities Planning Grant Program	Olivenhain MWD Study Inland Empire Utilities District Distribution System Evaluation
Water Recycling Construction Program	Carlsbad MWD Distribution System
State Revolving Loan Program for Water Recycling Projects	City of San Diego Los Angeles County Sanitation District
Proposition 13 - Groundwater Recharge Construction Grants	*Grant Recipients For Fiscal Year 2001-2002:* Ken Water Bank Authority United Water Conservation District City of Clovis Kern County Water Agency Regional Water Authority Orange County Water District Buena Vista Water Storage District Goleta Water District Yuba County Water Agency Los Angeles County Department of Public Works City of Los Angeles Department of Water And Power Cawelo Water District North Kern Water Storage District
Proposition 82 Programs	Mojave Water Agency Ground Water Recharge Project City of Oceanside Local Water Supply Project

2.7.1 California State Department of Water Resources

The SWRCB and DWR administer grant and loan funding associated with legislation and several general obligation bond laws. These agencies work collaboratively with the Bay-Delta Authority to develop proposal solicitation packages for the grant and loan programs and to conduct the review and selection processes. The key objective of the Financial Assistance Program is to provide financial assistance in the form of grants and loans to implement cost effective water use efficiency measures. These funds are available for water conservation and groundwater management purposes through the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act (Proposition 13).

Other funding mechanisms include the Watershed Protection and Nonpoint Source Pollution Control Grants. In 2003, DWR consolidated approximately $138 million in grants from Proposition 13, the Water Security, Clean Drinking Water, Coastal and

Beach Protection Act of 2002 (Proposition 50), and the Clean Water Act Section 319 under this program. In addition, the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 (Proposition 40) has $2.6 billion of funding for parks and historical resources and land, air, and water conservation.

Since 2000, the SWRCB consolidated grant program has awarded 6 water recycling loans for over $72 million (including 1984 Bond law funds) and 15 recycling grants for $50 million of the total available funds of $57 million available under Proposition 13 and the Safe, Clean, Reliable Water Supply Act of 1996 (Proposition 204) funds. These grant funds provided 25 percent of the construction costs with local, state, and federal sources providing the remaining funds. DWR and SWRCB also participated in the Water Recycling Task Force to make recommendations to the state legislature for solutions to remove obstacles for recycling.

Proposition 13 (2000 Bond Law)

Proposition 13 (Costa-Machado Water Act of 2000 [AB 1584]), the Safe Drinking Water Bond Act, approved in March 2000, provides $1.9 billion for safe drinking water, flood protection, and water quality programs. Proposition 13 is aimed at assisting California in developing solutions to water resource problems. A majority of the funding to be distributed under Proposition 13 was allocated to specific projects in the language of the Act. Uncommitted Proposition 13 funding will be determined by Legislative appropriation and also competitive grant awards from the SWRCB and other state agencies.

The Agricultural Water Conservation Loan Program; Ground Water Recharge Construction Loan Program; and Local Water Supply Loan Program provide low interest loans with up to a 20-year payback term for public water agencies. These loans can be used to finance the construction of water recycling storage and distribution facilities as well as the purchase of land and easements. These programs offer a maximum loan of $5 million and an interest rate of half the California General Obligation Bond sale. Appendices J through O provide detailed information on Proposition 13, specifically:

- Appendix J - Example of Successful Funding Infrastructure Rehabilitation Construction Program 2003
- Appendix K - Example of Successful Funding - State Water Resources Control Board
- Appendix L - Example of Successful Funding - Groundwater Storage Construction Grants 2003
- Appendix M - Example of Successful Funding - Groundwater Storage Program Construction Grants 2001-2002
- Appendix N - Example of Successful Funding - Proposition 13 Groundwater Recharge Program Construction Loans 2001-2002
- Appendix O - Example of Successful Funding - Proposition 13 List of Applicants

Proposition 40

Proposition 40, approved in March 2002, provides a $2.6 billion bond for water, habitat, air and park-related projects. Under Proposition 40, every city and county receives funds on a per capita basis to make parks safer with the goals of promoting tourism to the state, providing safe playgrounds, preserving coastal lands, and improving air quality. Appendices P, Q, and R provide detailed information on Proposition 40 including;

- Appendix P - Proposition 40
- Appendix Q - Example of Successful Funding - Proposition 40 2002 Funding Schedule
- Appendix R - Example of Successful Funding - Proposition 40 Available Funds for Kern and Los Angeles Counties

Proposition 40 allocates $46 million to the Clean Beach Initiative program. The SWRCB is currently accepting grant applications for this program to reduce health risk and increase public access to clean beaches. Eligible projects include those designed to implement stormwater and runoff pollution reduction and prevention programs that directly affect water quality at public beaches. Recycled water projects could be developed as a method of reducing runoff.

Proposition 50

Proposition 50, known as the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, was passed by California voters on November 5, 2002. Proposition 50 authorizes $3.44 billion in state general obligation bonds to fund a variety of water projects including:

- CALFED Bay-Delta Program (CALFED) projects, including urban and agricultural water use efficiency projects
- Grants and loans to reduce Colorado River water use
- Purchasing, protecting and restoring coastal wetlands near urban areas
- Competitive grants for water management and water quality improvement projects
- Development of river parkways
- Improved security for state, local and regional water systems
- Grants for desalination and drinking water disinfecting projects

Proposition 50 funding is partially administered through direct Legislative appropriations. Funds allocated by the bond measure are subject to appropriation by the Legislature through the state budget process. See Appendix S for more detailed information on Proposition 50.

2.7.2 The California State Water Resources Control Board

The SWRCB administers a number of programs that provide funding for recycled water projects. These funding programs include the State Revolving Fund (SRF); the Water Recycling Loan Program (WRLP) under Proposition 13; Water Recycling Grants (WRG); Nonpoint Source Grant: 319 (Nonpoint Source); and Small Community Grants.

The SRF, WRLP, and WRG provide agencies with low interest construction loans for water recycling and groundwater development projects. These loans carry an interest rate equal to half the General Obligation Bond interest rate of the state, which can result in substantial savings on debt service for an agency. Funding from the WRG Program is subject to availability and provides up to 25 percent of eligible construction costs with a maximum of $5 million per agency. There are also the Water Recycling Facilities

Planning Grants funded under Proposition 13, which provides a maximum value of $75,000 for eligible facilities planning and feasibility study costs.

For most of the SWRCB Programs, a priority list of projects is proposed for funding based on applications submitted for each project. The applications usually consist of a questionnaire, which have been submitted to the SWRCB to be considered for placement on the priority list. In the past, construction of water recycling facilities has been funded under the Water Recycling Construction Program via proposition 13. This program funds projects whose construction cost is less than $15 million. This program is currently funded under Proposition 50. Construction projects with costs above $15 million are funded through the SRF program.

California State Revolving Fund Loans

The Federal Clean Water Act provides for the creation of the SRF Loan Program capitalized in part by Federal funds. This program, which was originally designed to provide funding for high priority wastewater treatment and disposal projects, was revised in September 1990 to include water recycling projects. The SRF provides loans for construction (including planning, design, and construction administration) of wastewater treatment, wastewater recycling, and nonpoint-source pollution prevention projects. In the past, this program had between $150 to $200 million available annually for project funding with a maximum loan of $50 million per agency per year. SRF low interest loans are also available through the SWRCB.

California requires repayment of SRF loans at half the interest rate it pays on the immediately preceding sale of the General Obligation Bonds of the state. Interest rates for these loans vary based on Federal government interest rates. An agency can get a 0 interest rate loan if the agency will provide matching funds equal to 16.7 percent of the eligible project costs. The state sells bonds to finance these programs on an approximate 2-month interval. Terms for repayment vary from 15 to 20 years. Repayment can be structured with an escalating annual debt service payment (if required) to match the project implementation and start-up schedule or anticipated cash flow from the project. SRF programs include the Clean Water State Revolving Fund (CWSRF) and the

Infrastructure State Revolving Fund, which are administered by the SWRCB. The CWSRF provides low or zero interest loans to public agencies for stormwater treatment and other point source projects, as well as other wastewater, nonpoint source, and conservation management projects. The ISRF provides low-cost financing to public agencies for a wide variety of infrastructure projects, including drainage, flood control, and environmental mitigation projects.

Small Community Grants

The Small Community Grants Program provides grants of up to 97.5 percent of the eligible cost of a project (including planning, design, and construction administration) with a maximum limit of $3 million per agency. The service area of an agency must have a population under 5,000 and a median household income (MHI) of less than $32,000 (current year) to qualify for funding. The funding percent of the grant under this program vary with the MHI of the community, as follows:

- If MHI is less than $15,000 then the agency receives a 97.5 percent grant
- If MHI is between $15,000 and $20,000 then the agency receives a 90 percent grant
- If MHI is between $20,001 and $25,000 then the agency receives a 70 percent grant
- If MHI is between $25,001 and $32,000 then the agency receives a 50 percent grant

Water Recycling Construction Program

The WRCP provides low-interest loans and grants to local public agencies for the design and construction of water recycling facilities. The types of facilities included under this program are wastewater treatment, recycled water storage facilities, pump stations, and recycled water distribution pipelines. The funding application for this program requires a facilities plan to document the need for the project, the alternatives that were analyzed, and the engineering, economic, financial, and institutional feasibility of the proposed facilities.

The WRCP provides loans for construction (including design and construction administration) of water recycling projects with a 20-year payback period and an

interest rate of half the interest rate paid on the sale of the most recent General Obligation Bond of the state.

2.8 Federal Funding Sources

The Federal government provides funding for water, wastewater, and water resource projects under many auspices. Examples of funding available for projects include the following: USEPA grants to localities for water quality related projects; USDA loans for water and wastewater system projects; and HUD Community Block Grants for rehabilitation of public infrastructure.

The majority of Federal grants are targeted to small, rural, or low-income communities. Wastewater agencies that have received Federal orders to take actions relating to pollution are also provided emergency funding. The following section provides a summary discussion of these Federal programs. Contact information for Federal funding programs are contained in Appendix C and application forms are in Appendix E. Federal funding sources are summarized in Table 2.8. In addition, Table 2.9 provides examples of projects that have successfully received funding from Federal government programs. A number of the funding mechanisms discussed in the following section may not have direct application to a water recycling project but, these mechanisms can be utilized to fund a portion of a project especially if it is multi-objective (i.e., use recycled water to create wetlands or other habitats, or avoid discharge of wastewater that results in improved water quality.)

The federal government provides water management and infrastructure project funding for American Indian tribes through the U.S. Department of Interior Bureau of Indian Affairs and the U.S. Department of Health and Human Services Indian Health Service. Information regarding funding programs, which are available through these agencies, is available online at the Catalog of Federal Domestic Assistance (http://12.46.245.173/cfda/cfda.html) and through the website for each agency (http://www.doi.gov/bureau-indian-affairs.html or http://www.ihs.gov).

TABLE 2.8 SUMMARY OF FEDERAL FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount Per Agency
US Army Corps of Engineers	Cost Sharing of 65 Percent	Section 206 Aquatic Ecosystem Restoration	Continuous - Depending on Availability of Funds	Up to $5 Million National Program Limit (per FY) Is $25 Million
	Cost Sharing of 50 Percent	Section 503 Watershed Management, Restoration, and Development (Order 96-Water)	Continuous	$15 Million
	Cost Sharing of 75 Percent	Section 1135 Project Modifications for the Improvement of the Environment	Continuous	Up to $5 Million National Program Limit (per FY) Is $25 Million
	Cost Sharing of 75 Percent	Water Resources Development Act, Section 219—"Environmental Infrastructure"	There Is No Specified Application Period.	No Limit Current Projects Range from Less Than $1 to $52 Million
U.S. Bureau of Reclamation	Formula Grant	Title XVI - Reclamation Wastewater and Groundwater Study and Facilities Act	Continuous	1999-2003 Average Annual Appropriation Was $34 Million
U.S. Department of Agriculture – Rural Development	Loans and Grants	Water And Wastewater Disposal Loans and Grants Program	Continuously Accepts Applications Prefer Taking Applications in August and September	For Grants: Between 80 Percent – 100 Percent Are Eligible for Up to 45 Percent Grant Grants: Up to $2 Million Poverty Rate of 80 Percent of MHI Qualities for 75 Percent Grant
U.S. Department of Commerce, Economic Development Administration	Grant	Economic Development Administration Fund	Continuous	$300,000 - $5 Million (Average: $3 Million)
	Grant	Grants for Public Works And Economic Development	Continuous	No Limit Project Amount Average: $1,201,991
U.S. Department of Energy	Grant	National Industrial Competitiveness through Energy, Environment, and Economics	Periodically Open	$5,800,000 in Matching Grants Offered In 1995, with an Average Grant of $400,000

TABLE 2.8 SUMMARY OF FEDERAL FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount Per Agency
U.S. Environmental Protection Agency	Grant	Brownfields Economic Redevelopment Initiative - Brownfields Grant	Application Due: December 16, 2002 Selection: June 2003	Up to $400,000 per Grant for Assessment Up to $700,000 with Waiver
	Grant	Clean Lake Grant Program		*(Note: There Have Been No Appropriations Since 1994)*
	Grant	Clean Water Act Section 104(B)(3)-Wetlands Program Development Grant	Final Proposal for FY 2003: February 14	USEPA funds Up to 75 Percent of a Project
	Loan	Clean Water State Revolving Fund	Continuous	From $200,000 to $40 Million
	Loan	Drinking Water State Revolving Fund	Continuous	
	Grant	Environmental Education Grant Program	Periodically Open	Two Funding Levels: 1. Up to $25,000 2. From $25,000 to $250,000
	Grant	National Estuary Program	Periodically Open Last Opened in 1995 If Opened, Due Date Is June 1	From $10,000 to $795,000 Average: $100,000
	Grant	Nonpoint-Source Water Pollution Control		From $20,000 to $300,000
	Grant	Pollution Prevention Incentives For States	Deadline for FY 2003: May 9 Selection: Summer 2003	Up to $200,000
	Grant	State And Tribal Enforcement Grant Program	Application Due: May Selection: June	*For Base-Share Grants:* Up to $11 Million *For Competitive Grants:* $12 Million *For Tribal Set-Aside*: $2 Million
	Grant	State and Tribal Assistance Grant	May 16, 2003	Baseline Grants $200,000 Competitive Grants $1 Million
	Grant	Water Quality Cooperative Agreements Under Clean Water Act 104(B)(3)	Application Due: April Selection: May	From $50,000 to $150,000
	Grant	Watershed Assistance Grant	Proposals Must Be Postmarked No Later Than July	From $1,000 to $30,000 for the Past Three Years
U.S. Department of Housing And Urban Development	Grant	Community Development Block Grants Program	Continuous	Variable
	Competitive Grant And Loan	Super Notice Of Funding Availability – BEDI Grant Brownfields Economic Development Initiative	Published: April Deadline: July	Up to $2 Million Average: $1.1 to $1.3 Million
U.S. Department of Transportation	Grant	Metropolitan Transportation Improvement Program - Transportation Equity Act for the 21st Century		Overall Funding Levels for TEA-21 Are: $218 Billion to Be Dispersed Annually at about $36 Billion

TABLE 2.9 EXAMPLES OF SUCCESSFUL FUNDING - FEDERAL PROGRAMS

Federal Programs	Examples of Previous Projects
U.S. Army Corps of Engineers	
Water Resources Development Act, Section 219 -"Environmental Infrastructure"	Riverside County Water Treatment Plants
Section 1135 Project Modifications for the improvement of the Environment	Gunnerson Pond, Riverside County
U.S. Bureau of Reclamation	
Title XVI – Reclamation Wastewater and Groundwater Study and Facilities Act	*Feasibility Study:* Southern California Comprehensive Water Reclamation and Reuse Study *Research and Development Project:* Long Beach Desalination Research and Development Project *Construction Projects:* San Diego Area Water Reclamation Program*:* - San Diego Water Repurification Program - Escondido Regional Water Reclamation Program - Padre Dam MWD Water Recycling Project Los Angeles Area Water Reclamation and Reuse Project: - East Valley Water Reclamation Project - West Basin Water Reclamation Project - Terminal Island Water Reclamation Project San Gabriel Basin Project: - San Gabriel Demonstration Project - San Gabriel Valley Water Reclamation Project - Esteban Torres Water Recycling Program
Title XVI – Reclamation Wastewater and Groundwater Study and Facilities Act	*Other Programs Authorized by Amendments to Title XVI:* - North San Diego County Area Water Recycling Project - Calleguas Municipal Water District Recycling Project - Pasadena Reclaimed Water - Orange County Regional Water Reclamation Project – Phase I - Hi-Desert Water District Wastewater Collection and Reuse Facility - Mission Basin Brackish Groundwater Desalting Demonstration Project - Long Beach Area Water Reclamation and Reuse Project

TABLE 2.9 EXAMPLES OF SUCCESSFUL FUNDING - FEDERAL PROGRAMS

Federal Programs	Examples of Previous Projects
U.S. Environmental Protection Agency	
Brownfields Economic Redevelopment Initiative - Brownfields Grants	Anaheim Redevelopment Agency, California Bakersfield Redevelopment Agency Capitol Area Development Authority in Sacramento, California City of Carson Contra Costa County Redevelopment Agency, California Culver City, California East Bay Habitat for Humanity in the City of Oakland, California San Francisco Bay Area Rapid Transit, California
Clean Lake Program Grants (Reauthorized in 2000 as part of the Estuaries and Clean Water Act of 2000- But No Funds Have Been Appropriated)	*FY 1993 Awards:* California Statewide Lake Water Quality Assessment (LWQA), $39,106 Gull and Silver Lakes - Phase I, $62,500 *FY 1994 Awards:* California Salton Sea - Phase I, $95,000 Big Bear Lake - Phase II, $90,000 *Other Active Projects:* California Eagle Lake - Phase I Lake Elsinore - Phase I Keswick Reservoir - Phase I Lake Nacimiento - Phase I
Watershed Assistance Grant	*Projects In California Approved For Funding In 2002:* Friends of the Napa River, California: Partnership Capacity Building Upper Eel Watershed Forum, California: "The Upper Eel Watershed Forum Assistance Project"
U.S. Department of Housing and Urban Development	
Super Notice of Funding Availability – BEDI Grant Brownfields Economic Development Initiative	*Los Angeles Area Has Received 2 BENDI Awards:* Pacoima Center Project The Maralton Square
U.S. Department of Transportation	
Metropolitan Transportation Improvement Program – Transportation Equity Act for the 21st Century	California TEA-21 State Highway Safety Grant Funding

2.8.1 U.S. Army Corps of Engineers - Army Corps of Engineers Civil Works Projects

The U.S. Army Corps of Engineers' Civil Works Directorate has a number of environmental responsibilities. Not only is the USACE the largest provider of water-based recreation facilities, it also administers a major environmental permitting program and operates hydropower facilities that provide 24 percent of the electricity for the nation. For funding from the USACE, major projects require congressional approval; however, the USACE can provide project funding through its Continuing Authority Program (CAP).

The USACE budget includes about $500 million a year on environmental activities. Depending upon the type of project, cost sharing varies. For most assistance, pre-application consultation and coordination is essential. The USACE application process most commonly consists of a letter to the District Engineer, indicating clear intent to provide all required local participation. State and local governments can work with the USACE District Engineer to define environmentally sensitive project objectives and identify realistic sources of the non-Federal portion of the cost share for the project. The WRDA Section 1135 programs are the most relevant potential funding sources from the USACE for water recycling projects.

2.8.2 U.S. Bureau of Reclamation

Reclamation Wastewater and Groundwater Study and Facilities Act - Title XVI

Reclamation provides funding for both the planning and construction of water recycling projects. Planning funds may be made available for either appraisal or feasibility level study efforts. Currently, Reclamation funds for water recycling and reuse are appropriated under the authority of the Reclamation Wastewater and Groundwater Study and Facilities Act of 1992 (Title XVI of Public Law 102-575 as amended). The local sponsor can, by itself or in cooperation with Reclamation, initiate the planning of a Title XVI project. The Reclamation funding for Title XVI is subject to the availability of congressionally appropriated funds. Generally, Title XVI authorizes the Federal government to fund up to 25 percent of the capital cost of authorized water recycling projects, up to a maximum of $20 million per project.

Federal construction funds are provided only for projects specifically authorized by Congress pursuant to the various sections of Title XVI. Reclamation makes funding recommendations on construction of authorized projects in the President's annual budget request to Congress. Projects not yet authorized for construction require specific congressional authorization before Congress can appropriate funds through the Title XVI program.

Projects funded by Title XVI must meet the following requirements prior to receiving Federal funding from Reclamation:

- A feasibility report that complies with the provision of Title XVI must be completed by Reclamation or the non-Federal project sponsor
- The Secretary of Interior has determined that the non-Federal project sponsor is financially capable of funding its share of the project costs
- Project compliance with the National Environmental Policy Act and other environmental laws
- The Secretary of Interior has approved a cost-sharing agreement with the non-Federal project sponsor that commits the non-Federal project sponsor to funding its proportionate share of the project construction costs on an annual basis

Funds are typically disbursed during construction on a reimbursement basis after the above criteria have been met.

2.8.3 U.S. Department of Agriculture

Rural Utilities Service Water and Waste Disposal Program

The Water and Waste Disposal Loan Program provides loans for water and waste disposal in rural communities with a population of less than 10,000. A rural community is defined as any area not in a city or town with a population in excess of 10,000 inhabitants, according to the latest decennial census of the United States. Interest rates for these loans are based on the most recently sold bond rates and therefore vary. Low interest loans may be provided to communities with low and moderate median household income levels. A low MHI is defined as less than 80 percent of the state nonmetropolitan household income. Moderate MHI is defined as between 80 percent and 100 percent of the state nonmetropolitan household income.

The Water and Waste Disposal (WWD) program provides both loans and grants to rural communities for drinking water, wastewater, solid waste, and storm drainage projects. This program provides up to 75 percent funding in the form of grant assistance to reduce water and waste disposal costs to a reasonable level. Rural Utilities Service also

administers the "Water 2000" initiative to bring safe, affordable drinking water to all rural areas by the year 2000. These programs are administered locally by state and area rural development offices. For FY 2003, the following amounts were reported as available:

- Grants: $615,873,986
- Loans: $905,133,188

2.8.4 U.S. Environmental Protection Agency

The state of California falls under the umbrella of Region IX of the USEPA, which also covers Arizona, Hawaii, Nevada, the Pacific Islands subject to U.S. law, and approximately 140 tribal nations. The USEPA works with state, local, and tribal governments in the region to carry out U.S. environmental laws.

The USEPA provides financial assistance grants for qualified applicants to support a variety of environmental programs and activities. The USEPA Office of Water is one of the many departments within the USEPA that provides Federal dollars for Wastewater and Drinking Water (Clean Water State Revolving Fund and Drinking Water State Revolving Fund [DWSRF]), Water Quality (Beach Act Grants, Wetland Program Development Grants, Section 319 Non Point Source Implementation Grants, Section 106 Water Pollution Control Program Grants and Section 102(b)(3) Water Quality Cooperative Agreements) and Tribal (Wastewater and Water Quality Funding Programs for Tribes and Drinking Water Funding for Tribes) water projects. The programs most relevant to recycled water projects implemented by public agencies are described below.

Brownfields Economic Redevelopment Initiative - Brownfields Grant

The Brownfields Economic Redevelopment Initiative provides funding for communities encouraging community groups, developers, investors, and lenders to develop creative solutions to assess and remediate Brownfields (contaminated sites) to return them to productive use. Stakeholders in the economic redevelopment are also encouraged to work together to prevent, assess, safely remediate, and sustainably reuse Brownfields. This grant could be utilized for recycled water projects that are incorporated as part of a

larger Brownfields project. This could include the use of recycled water as a source water for environmental restoration or irrigation of green-space projects.

To date, the USEPA has awarded more than 360 Brownfields Assessment Demonstration Pilot projects that are funded through cooperative agreements of up to $200,000 each for a two-year period. The pilot projects are exploring innovative approaches for solving Brownfields problems as well as providing an expanded knowledge base to assist in directing future projects under the Brownfields Initiative. These pilot programs also have been testing redevelopment models, directing efforts at removing regulatory barriers, and bringing together community groups, developers, investors, lenders, and other affected parties to address Brownfields issues. The USEPA also has awarded 43 pilot projects with grants of up to $50,000 for assessments supporting green-space projects.

As part of the ongoing efforts of USEPA to promote economic revitalization while safeguarding the environment and public health, the USEPA announced on July 3, 2003, a $73.1 million allotment to the Brownfields funds for a variety of grants. These grants will be funded under the Small Business Liability Relief and Brownfields Revitalization Act.

Clean Water State Revolving Fund

The CWSRF program funds projects for publicly owned wastewater treatment facilities. The program also funds a variety of publicly or privately owned nonpoint-source and estuary management projects. The CWSRF programs have provided an average of $3.8 billion over the past 5 years to fund water quality protection projects for wastewater treatment, nonpoint-source pollution control, and watershed and estuary management. The CWSRF program has funded over $38.7 billion in projects since its inception, providing over 12,500 low-interest loans. These funds could be utilized for projects that have recycled water components but whose focus is wastewater treatment or water quality protection.

The CWSRF offers low interest rates, flexible term loans that average a 2.5 percent interest rate compared with market rates that average 5.1 percent, which amounts to an

average savings of 21 percent. The CWSRF can fund all of the project costs and provide flexible repayment terms of up to 20 years in duration.

Key features of the program include:

- Low Interest Rates, Flexible Terms
- Significant Funding for Nonpoint-Source Pollution Control and Estuary Protection – The CWSRF provides over $200 million annually to control pollution from nonpoint sources and for estuary protection, exceeding $1.6 billion to date
- Assistance to a Variety of Borrowers - The CWSRF program has assisted a range of borrowers including municipalities, large and small communities, farmers, homeowners, small businesses, and nonprofit organizations
- Partnerships with Other Funding Sources – The CWSRF partners with banks, nonprofits, local governments, and other Federal and state agencies to provide the best water quality financing source for their communities

Drinking Water State Revolving Fund

The Safe Drinking Water Act, as amended in 1996, established the DWSRF to make funds available to drinking water systems for financing infrastructure improvements. The program also provides funds for a variety of activities that support source water protection and enhanced water system management to small and disadvantaged communities, and to programs that encourage pollution prevention as a tool for ensuring safe drinking water. The DWSRF program funds projects for publicly or privately owned public water systems needed to protect public health and ensure compliance with drinking water regulations. These funds could potentially be utilized to finance components of recycled water projects that prevent pollution and support source water protection.

Wetlands Program Development Grant

The WPDG, initiated in FY 1990, provide eligible applicants an opportunity to conduct projects that promote the coordination and acceleration of research, investigation, experiment, training, demonstration, survey, and studies relating to the causes, effects,

extent, prevention, reduction, and elimination of water pollution. While the WPDG can continue to be used by recipients to build and refine any element of a comprehensive wetland program, priority will be given to funding projects that address the three priority areas identified by the USEPA for FY 2003.

These priorities are:

1. Developing a Comprehensive Monitoring and Assessment Program
2. Improving the Effectiveness of Compensatory Mitigation
3. Refining the Protection of Vulnerable Wetlands and Aquatic Resources

States, Tribes, Local Governments (S/T/LGs), interstate associations, intertribal consortia, and national nonprofit, nongovernmental organizations are eligible to apply for these grants. The WPDG could be used for wetland projects that utilize recycled water as a source water.

2.8.5 U.S. Department of Housing and Urban Development

Community Development Block Grant - Entitlement Grant

The CDBG Entitlement -Grant Program seeks to develop viable urban communities by providing decent housing, a suitable living environment, and expanding economic opportunities. The CDBG provides grant funds to low income communities (qualifying income is defined as an income that is 80 percent of the county-wide median household income or less, and is adjusted per household based on household size) for the construction or expansion of essential services including sewage treatment and collection. The majority of the community must be within the qualifying income level. This program supports activities that benefit low-to moderate income citizens in cities in Metropolitan Statistical Areas (MSAs). MSAs are designated by the Office of Management and Budget (OMB) as a central city with a population of over 50,000 or qualified urban counties that have a population of at least 200,000 (excluding entitlement cities located in such counties).

Federal formula grants based on population, income, housing, and growth lag are awarded to eligible entities. Grantees must certify that at least 70 percent of grant funds

received are spent for activities that principally benefit low- and moderate-income persons. Specific activities that can be carried out include acquisition of real property, relocation and demolition, rehabilitation of residential and nonresidential structures, and the provision of public facilities and improvements, such as water, wastewater, and water recycling treatment facilities. Treatment facilities and Brownfields-related activities are among the types of projects that have been funded by these grants. There are 986 local governments eligible to receive these grants as of FY 1998.

2.8.6 U.S. Department of Transportation

Metropolitan Transit Authority TEA-21

The new Federal highway, bridge, and transit legislation called the Transportation Equity Act for the 21st Century (TEA-21) was signed into law on June 9, 1998. TEA-21 is the largest Federal transportation measure ever passed by Congress and provides authorization for highways, highway safety, and mass transportation programs for six years while protecting and enhancing communities, the natural environment and domestic and international economic growth and competitiveness. Overall funding levels for TEA-21 are $218 billion. These funds will be dispersed at a rate of $36 billion annually.

This Act reauthorized, modified, and extended the work of programs, which originated under the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and continued the improved relationship between transportation and the environment. ISTEA made wetlands mitigation efforts eligible under both the National Highway System and Surface Transportation Program. Eligible activities included mitigation banking, wetland preservation and restoration efforts, and state and regional wetland planning.

The TEA-21 program retains wetland mitigation project eligibility and adds natural habitat. It allows up to 20 percent of reconstruction, resurfacing, rehabilitation, or restoration project costs for environmental restoration and pollution abatement, including retrofit or construction of stormwater treatment systems to address environmental problems caused or contributed to by transportation facilities. Other

eligible activities, including purchase of scenic easements, scenic beautification and landscaping, preservation of abandoned railway corridors, and mitigation to address water pollution due to highway runoff, are reauthorized with 40 percent more money. State transportation agencies, such as the California Department of Transportation (Caltrans), will be able to undertake a variety of measures to combat air pollution, restore and preserve wetlands, and otherwise mitigate environmental impacts; however, this is contingent upon implementation of regulation changes in the reauthorization. According to TEA-21, the state, the Metropolitan Planning Organization **(**MPO), and the local transit authority must cooperate to develop a Metropolitan Transportation Improvement Program (TIP) that will contain a prioritized list of all proposed highway and transit projects in the metropolitan area to be carried out over a 3-year period. The TEA-21 funds could be used to fund recycled water components of irrigation and wetland projects that are along transportation corridors.

2.9 Nongovernmental Funding Sources

This section presents the nongovernmental funding opportunities potentially available for recycled water projects through the California Municipal Utilities Association (CMUA), California Special Districts Association (CSDA), League of California Cities (League), WateReuse Association, and the WateReuse Foundation. A brief summary of the availability of funds through these organizations is presented in Sections 2.9.1 through 2.9.5. Contact information for nongovernmental local funding programs are provided in Appendix D and the funding application forms are provided in Appendix E. The nongovernmental funding sources are summarized in Table 2.10. In addition, Table 2.11 provides examples of projects that have successfully received funding from nongovernmental funding programs.

TABLE 2.10 SUMMARY OF NONGOVENMENTAL FUNDING SOURCES

Funding Agency	Funding Type	Program Name	Application Period	Amount per Agency
California Municipal Utilities Association	Bond	Financing Authority for Resource Efficiency of California	Continuous	Based on Project
California Special District Association	Tax-Exempt Financing	CSDA Finance Corporation Program	Continuous	
League of California Cities	Loan	California Statewide Communities Development Authority	Continuous	$2 Million and Up
WateReuse Foundation	Per RFPs	Research Contracts	Varies	From $50,000 to $350,000 Fee: $250 - $10,000

TABLE 2.11 EXAMPLES OF SUCCESSFUL FUNDING - NONGOVERNMENTAL

Nongovernmental Programs	Examples of Previous Projects
California Municipal Utilities Association (CMUA)	
Financing Authority for Resource Efficiency of California	Cities of Anaheim, Pasadena, and Riverside The City of Anaheim Electric The City of Colton Electric Trinity County Public Utility District
WateReuse Foundation	
Research Contracts	"Water Factory 21" in Orange County (California) County Sanitation Districts of Los Angeles County (California) Reclaimed Water Projects West Basin Water Recycling Project (California) San Antonio Water Recycling Centers Monterey County Water Recycling Projects

2.9.1 California Municipal Utilities Association

The CMUA represents publicly owned utilities to the California State legislature and state regulatory agencies. CMUA was formed in 1937 to represent the interests of the California consumer-owned water, electric, and gas utilities before the state legislature. The CMUA also monitors the activities of the state administrative agencies.

The CMUA formed the Financing Authority for Resource Efficiency of California (FARECal), which is the first statewide joint powers authority (JPA) created specifically to finance water and energy conservation and efficiency programs by pooling financial resources. Table 2.12 provides a list of CMUA member agencies.

Financing Authority for Resource Efficiency of California

FARECal was established to assist electric, gas, steam, water, and wastewater utilities in the development and implementation of resource efficiency programs. FARECal is a financing authority that sells bonds to public agencies that are members of FARECal and is open to any water conservation and energy efficiency projects. Projects that qualify for FARECal financing include: electric utility, water utility, reclamation, integrated resource planning studies, and joint financing of conservation equipment.

Publicly owned electric, water, natural gas, recycled water, and steam utilities are eligible for membership in the CMUA and may join FARECal. FARECal is governed by a Board of Directors, chosen from a combination of the charter members, agencies with outstanding financing with FARECal and agency members.

FARECal offers joint financing flexibility. FARECal financing may include multiple types of projects or programs, as well as involve multiple utility participants. Each financing mechanism may be structured to meet the needs of the participants. Financing through FARECal will permit a number of small projects to be combined into a single financing mechanism, which reduces the costs of issuance of bonds.

FARECal has the authority to issue, on behalf of participating members, tax-exempt debt for the financing of capital improvements and resource efficiency projects. The first financing effort for FARECal was a $19.5 million revenue bond issue to fund water and energy programs for the cities of Anaheim, Pasadena, and Riverside. Three CMUA members, the City of Anaheim Electric, the City of Colton Electric, and Trinity County Public Utility District, participated in the 30-year borrowing, which had a combined true interest cost of 5.92 percent. To date, FARECal has issued a total aggregate amount of approximately $66 million.

TABLE 2.12

CMUA MEMBER AGENCIES

City of Alameda Power and Telecom	City of Lodi Water and Electric	City of San Bernardino Water
City of Alhambra Water	City of Lompoc Utility Department	City of San Diego Water
City of Anaheim PUD	City of Long Beach Energy	City of San Francisco Water
City of Arcadia Water	City of Long Beach Water	Hetch Hetchy Water and Power
City of Azusa Light and Water	Los Angeles Water and Power	City of San Jose
City of Banning Public Utilities	Merced Irrigation District	City of San Marcos
City of Burbank Water and Power	Metropolitan Water District of Southern California	City of Santa Ana Water
City of Cerritos	Modesto Irrigation District	City of Santa Clara
Coachella Valley Water District	City of Napa Water	Silicon Valley Power
City of Compton Water	City of Needles Water and Electric	City of Santa Cruz Water
City of Corona	City of Newport Beach	City of Shasta Lake
East Bay Municipal Utility District	Northern California Power Agency	City of South Gate
East Valley Water District	Palmdale Water District	So California Public Power Authority
Eastern Municipal Water District	City of Palo Alto Utilities	City of Sunnyvale
El Dorado Irrigation District	City of Pasadena Water and Power	Transmission Agency of Northern California
City of Glendale Water and Power	Placer County Water Agency	Trinity County PUD
City of Healdsburg Electric and Water	City of Pleasanton	Truckee Donner PUD
City of Hemet	City of Pomona	City of Turlock
City of Hercules	City of Rancho Cucamonga	Turlock Irrigation District
City of Indian Wells	City of Redding	City of Ukiah
Imperial Irrigation District	City of Redlands	City of Vernon Utilities Department
City of Inglewood Water	City of Riverside PUD	City of Victorville
City of Lakewood	City of Roseville	Water Replenishment District of Southern California
Lassen Municipal Utility District	Sacramento Municipal Utility District	City of Woodland

2.9.2 California Special Districts Association

The CSDA is a 501c(6), not-for-profit association that was formed in 1969 for the continued existence of local and independent special districts. For over 35 years, the CSDA has been offering its members cost-efficient educational programs and legislative representation at the California State Capitol. A complete list of CSDA members can be found at http://www.csda.net/images/Memblist.pdf.

The CSDA has a membership encompassing more than 800 special districts in California. The CSDA is a statewide association representing all types of independent special districts ranging from air quality management to wastewater including: irrigation, water, park and recreation, cemetery, fire protection, police protection, library, utility, harbor, healthcare, resource conservation and community services districts.

The CSDA Finance Corporation exists to provide tax-exempt financing programs for special districts and other public agencies. Since 1988, CSDA Finance Corporation has assisted more than 70 special districts in the state of California and has facilitated the funding of more than $500 million in capital improvement and equipment purchases. The CSDA Finance Corporation program offers tax-exempt financing programs including certificates of participation (COP) financing; interim financing; as well as lease and installment purchase financing. The CSDA Finance Corporation financial consulting team is able to offer tailored financing programs for each specific special district need.

The COP financing is most frequently structured as a pooled transaction with benefits of the program including competitive interest rates; level payments that enable the district to spread the cost of financing the asset or project evenly over its useful life; and ownership of the asset.

By combining a number of special districts into a pooled COP transaction, the CSDA Finance Corporation program allows each participant to share the advantages afforded by economies of scale, low front-end costs, and the established creditworthiness and name recognition of the CSDA Finance Corporation in the tax-exempt capital marketplace.

Post issuance, the CSDA Finance Corporation monitors the outstanding obligations of a district to determine if refinancing the debt to a lower interest rate is viable, thereby further reducing annual payments.

COP financing is also available to single issuers who can benefit from the flexibility and responsiveness of the program for borrowings of sufficient size. The CSDA Finance Corporation, together with its financial consulting team, raises funds to finance the projects of a district through a public offering to investors. In return, those investors receive either a security interest in the asset and a stream of payments (principal repayment at maturity and semi-annual interest) or a first lien and pledge from a certain revenue source and a stream of payments. The interest portion of either mechanism is exempt from Federal and California state income taxation.

Lease-purchase installment financing is one means by which a municipality or a public agency can acquire real or personal property. It involves the purchase of an asset through periodic lease payments, which have principal and interest components. Lease-purchase financing is an alternative to purchasing an asset with cash, acquiring its use for a period of time through a true lease or issuing bonds. Benefits of the lease installment purchase financing include; no up-front costs or fees; simplified documentation; tax-exempt interest rates; flexible payment terms; personalized and responsive customer service. Interim financing is also available for districts and other public agencies on a case-by-case basis.

2.9.3 League of California Cities

The League of California Cities provides municipal and public benefit financing programs for cities, nonprofit organizations, manufacturers, and other entities. These programs are available through the California Statewide Communities Development Authority (CSCDA), a financing authority sponsored by the League and the California State Association of Counties. The CSCDA administers two programs that could potentially finance recycled water projects; they are the Statewide Community Infrastructure Program (SCIP) and the Water and Wastewater Bond Program.

The SCIP is designed to provide a tax-exempt financing program that uses economies of scale to greatly reduce the cost of bond issuance and improve interest rates for projects of any size. However, this program only finances developer fees that qualify under the specific city's or county's impact fee. For a water recycling project, only that portion of the fees that relate to construction or upgrading of water recycling infrastructure would be applicable to receive funding. With continuing growth of California cities and the increasing need for new public infrastructure, the SCIP helps cities grow from the ground up. The SCIP allows qualifying property owners in participating cities and counties to take out a nonrecourse loan to pay some, or all, of the development impact fees owed to a city or county. The SCIP is sponsored by the League and the California State Association of Counties, who promote a pooled bond program through the CSCDA. Under the SCIP, there are two programs: the Impact Fee Reimbursement Program and the Impact Fee Prefunding Program. The impact fees for either of these programs are funded through CSCDA bond issues tied to the formation of assessment districts. Both programs require that the funds be used by the city to pay for public improvements and infrastructure. The components of each program are highlighted below.

- **Impact Fee Reimbursement Program**
  - Property owners pay all development impact fees at the time the building permit is issued
  - The property owner submits an application through the city to the SCIP
  - The property owner is reimbursed for the eligible impact fees from bond proceeds
  - Cities may withdraw the fees paid, including interest earnings, at any time for use on public improvements and infrastructure
  - The city does not run the risk of a property owner failing to pay development impact fees or failing to pay the assessments over time
- **Impact Fee Prefunding Program**
  - Large blocks of development impact fees can be financed up front

- This program is beneficial to fast-growing cities where development has outpaced the capacity of water, sewer, and road systems to accommodate new growth
- The developer submits an application to the SCIP, and the eligible impact fees are funded through the next available SCIP bond issue
- These funds are deposited into the city SCIP account and are available for expenditure by the city well in advance of issuing building permits

To participate in SCIP, cities must adopt a one-time resolution, make the SCIP applications available to property owners at the building permit counter, co-sign and submit the applications, and sign a closing certificate. The city may withdraw funds from the SCIP account at any time for expenditure on projects.

The second CSCDA financing program is the Water and Wastewater Bond Program. Eligible applicants for this CSCDA program include cities, counties, and special districts, including water and wastewater/recycled water agencies. The bonds can be used to finance or refinance water, sewer, and wastewater capital improvement projects in amounts ranging from $250,000 to $50,000,000 with a term of up to 40 years. The bonds are fixed for the term of the financing and is set at the "AAA" rated, California tax-exempt bond rate on the day of the Bond sale. Advantages of the program are:

- Lower issuance costs with fixed-rate, AAA-rated pooled financing structure
- Low interest rates with AAA-rated, tax-exempt, insured revenue bonds
- Packaged program with proven financing team
- Authorized with a single resolution of the participant's governing board
- Streamlined documentation reduces staff time requirement
- Easy refinancing of existing water and wastewater debt, including revenue bonds, leases, loans, and COPs
- Finance (or refinance) capital projects for up to 30 years
- In most cases, no cash funded reserve requirement
- Frequent market access (two to three pools per year)

In addition, the economies of scale of a pooled bond issue allow for both lower costs of issuance (including bond insurance) and lower interest rates. An agency can request to borrow funds below the $250,000 level if it is cost effective for the pooled bond. The Program has issued over $200 million of Water and Wastewater Pooled Revenue Bonds thus far.

2.9.4 WateReuse Association

The WateReuse Association is a nonprofit organization whose mission is to advance the beneficial and efficient use of water resources through education, sound science, and technology using desalination, reclamation, recycling, and reuse for the benefit of its members, the public, and the environment. Across the United States and the world, communities are facing water supply challenges due to increasing demand, drought, depletion and contamination of groundwater, and dependence on single sources of supply. WateReuse addresses these challenges by working with local agencies to implement water reuse projects that resolve water resource issues and create value for communities. The vision of WateReuse is to be the leading voice for desalination, reclamation, recycling, and reuse in the development and utilization of new sources of high quality water.

Communities across the United States rely on their water and wastewater utilities for good planning and investment in the reliability, quality, and safety of the water supplies of the nation. Water reuse is a critical component of the dialogue as communities conduct water supply planning for the 21st century. Water reuse is an important and growing component of long-range water supply planning in a number of states in the west, southwest, southeast, and mid-Atlantic regions. There is also growing interest in water reuse in other regions of the U.S. as well.

In response to the growth of water reuse, the WateReuse Association became a national organization in 2000. The Association is headquartered in the Washington D.C. area and employs a full-time professional staff. This presence in the nation's capitol is critical for ensuring that water reuse receives attention and funding on the Federal level commensurate with its impact, benefits, and value. The national scope of the

Association, combined with programs and investments that create local benefits, makes WateReuse a leader in ensuring the future reliability, quality, and safety of local water supplies.

WateReuse members are part of a dynamic network focusing on the development of water reuse and desalination projects. The Association and its members provide a number of benefits, including the following: advocacy on federal and state initiatives, education and outreach including conferences and workshop, and supporting research.

2.9.5 WateReuse Foundation

The WateReuse Foundation, a nonprofit corporation, sponsors research that advances the science of water reuse and reclamation. The Foundation has an annual research $3 million budget and funds projects that meet the water reuse research needs of water and wastewater agencies and the public to create new sources of high quality water through the reclamation and reuse of impaired waters while protecting public health and the environment.

The research program for the Foundation is guided by a Research Plan. Under the plan, a research agenda of high-priority topics is maintained. The agenda is developed in cooperation with the water reuse community including water professionals, academics, and Foundation Subscribers. The research of the Foundation focuses on a broad range of water reuse research topics including the following:

- Defining and addressing emerging contaminants
- Public perceptions of the benefits and risks of water reuse
- Management practices related to indirect potable reuse
- Groundwater recharge and Aquifer Storage and Recovery
- Evaluating methods for managing salinity
- Economics and marketing of water reuse

The primary funding partner of the Foundation is the U.S. Bureau of Reclamation. Other funding partners include the California State Water Resources Control Board, the Southwest Florida Water Management District, Foundation Subscribers, water and

wastewater agencies, and other interested organizations. The Foundation leverages its financial and intellectual capital through these partnerships and funding relationships. The Foundation is also a member of two water research coalitions – the Global Water Research Coalition and the Joint Water Reuse Task Force. Appendix U provides a summary of research programs.

2.10 2002 DWR Recycled Water Task Force

The 2002 DWR Recycled Water Task Force (Task Force) was created as a result of Assembly Bill No. 331, which authorized the development of a Task Force to identify constraints, impediments, and opportunities for the increased use of recycled water and report to the Legislature by July 1, 2003. The Task Force limited its focus to the financial/economic, regulatory, and social issues that typically arise in water recycling projects. The recommendations of the Task Force regarding the funding of water recycling projects included the following:

- State funding for water recycling projects should be increased beyond Proposition 50 and other current sources. Funding for construction of recycled water projects should be included in future water bonds. Under the existing cost share, the state needs to include in new bonds approximately $300 million annually for grants and low interest loans to achieve the planned 1.5 million acre-feet of additional recycling by the year 2030.

- The California Water Commission, in cooperation with DWR and SWRCB, is strongly encouraged to seek Federal cost sharing legislation to support the development of water recycling projects in California to achieve 1.5 million acre-feet by the year 2030.

- A revised funding procedure should be developed to provide local agencies with assistance in potential state and Federal funding opportunities. Assistance and guidance would be provided to such agencies as follows:

a. The SWRCB would facilitate a newly established Water Recycling Funding Coordination Committee (Committee) to coordinate applicant's funding needs with the appropriate funding agencies. The Committee would guide the local agency through the identification of (1) Correct funding source(s), (2) Accountability measures and (3) Monitoring and assessment reporting requirements.

b. The Committee would establish quantifiable objectives to be used in the review of a proposed project. Objectives should include (1) the local, regional, and state benefits, and; (2) nonwater supply benefits, resulting from the project. When reviewing proposed projects, the Committee would recommend modifications to maximize the benefit to the water supply of the state.

c. The Committee would work cooperatively with funding agencies, streamlining project selection while ensuring an open process for setting selection criteria. Peer review and public review of the project selection would also be provided. The Committee would work to ensure that projects have an appropriate level of scientific review, and ongoing monitoring and data analysis.

d. The Committee should maintain a listing of local, state, and federally funded projects. The list should include detailed project cost and water supply yield information.

- State funding agencies should use information from completed regional studies when determining the prioritization of funding for those projects encompassed under an existing regional plan. The process does not exclude projects where regional plans do not exist.

- Public information to support education and outreach efforts should be provided by having funding agencies:

    a. Present public funding availability at statewide conferences

b. Establish an Annual Water Recycling Funding Information Workshop to assist participants in preparing funding application packages for all available funding sources (Federal and state)

c. Set up one common website

- Funding sources should be expanded to include sustainable state funding (research funding to DWR only) for the DWR technical assistance and research, including flexibility to work on local and regional planning processes, ongoing studies of emerging issues, and new technology.

- Funding agencies should be provided with the resources to perform comprehensive analyses of performance of existing water recycling projects. The analyses should include determination of actual costs and benefits and recycled water deliveries. The funding agencies should conduct these analyses jointly in an open and peer-reviewed process. These analyses should quantify recycled water yield in acre-feet per year and compare actual yield with planned yield. The analyses should list other benefits of recycling (such as water supply reliability), and where possible to quantify these benefits. They also should provide costs in equivalent units such as equivalent annual cost.

Additional information, as well as the complete listing of recommendations from the Task Force, can be found in the Task Force Final Report, which is attached electronically in Appendix E, or at the DWR website at http://www.owue.water.ca.gov/recycle/taskforce/taskforce.cfm.

3 Conclusion

There are a number of financing mechanisms available for water recycling projects in southern California. These financing options vary from local and state to Federal programs and also include nongovernmental funding options. Most of the governmental funding options are opened for applications in the spring with notification of selected projects occurring in the summer or fall. The most appropriate sources for funding water recycling projects are:

- Local Funding Options – The SDCWA FAP and RWDF and the MWDSC LRP are potential sources of funding for water recycling projects.
- State Funding Options - There are a number of state funding options that are viable for water recycling projects; however, the most applicable sources for funding are under the SRF – Water Recycling Projects Program and Proposition 50 funding. Another future potential funding source is Proposition 13 funding through the Water Recycling Construction Program, whose funding is currently on hold until loans are repaid and the funding is replenished.
- Federal Funding Options - A number of the Federal agencies have the ability to fund water recycling projects; however, this funding often requires line-item legislative appropriation. The Reclamation Title XVI and USACE WRDA Programs are potential sources of funding that require legislative appropriations. The USEPA has a number of funding mechanisms for recycled water projects, but most of these funds are distributed at the state level under the SRF Program. Other Federal funding mechanisms for recycled water projects primarily fund projects in rural or economically disadvantaged areas. Examples of programs that fund projects in these areas are the CDBG Programs of the Department of Commerce EDA and HUD.
- Nongovernmental Funding Options – Most of the funding options available from nongovernmental agencies are for financing projects with lower repayment cost loans or bonds. The CMUA, SCDA, League of California Cities, and WateReuse Association have low-cost financing options that are available for member agencies of these organizations.

In addition to the funding options and lower cost financing available from the sources referenced above, there are also a number of financing options that an agency can utilize to fund a project. These options include user fees, impact fees, local taxation, and privatization. These other funding mechanisms are summarized in Appendix H of this TM.

APPENDIX A - SUMMARY OF POTENTIAL LOCAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

TABLE A.1 – SUMMARY OF **POTENTIAL LOCAL** GOVERNMENT FUNDING MECHANISMS **FOR RECYCLED WATER PROJECTS**

Funding Agency	Funding Type	Program Name	Contact/Information
Metropolitan Water District of Southern California (MWDSC)	Grant	City Makeover Program	Phone: (213) 217-7262 or (213) 217-6633 Website: http://www.mwdh2o.com/mwdh2o/pages/city/city01.html
	Grant	Community Partnership Program	Phone: (213) 217-7262 or (213) 217-6633 Website: http://www.mwdh2o.com/mwdh2o/pages/yourwater/cpp/cpp.html
	Biannual Grant	Innovative Conservation Program (ICP)	Phone: (213) 217-7693 Website: http://www.mwdh20.com/mwdh2o/pages/conserv/icp01.html
	Grant RFP	Innovative Supply Program (ISP)	Phone: (213) 217-6594 Website: http://www.mwdh20.com/mwdh2o/pages/business/business01.html
	Grant	Local Resources Program	Phone: (213) 217-6548 Website: http://www.mwdh20.com/mwdh2o/pages/business/business01.html
San Diego County Water Authority (SDCWA)	Biannual Loan	Financial Assistance Program (FAP)	Steve Simon, Engineer II Phone: (858) 522-6765
	Loan	Reclaimed Water Development Fund (RWDF) Program	Maria G. Mariscal, Sr. Water Resources Specialist Phone: (858) 522-6746

APPENDIX B - SUMMARY OF POTENTIAL STATE GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

TABLE B.1 - SUMMARY OF FINANCIAL SUPPORT OPPORTUNITIES POTENTIAL STATE FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California Energy Commission	Incentive Funds	Water and Wastewater Facilities Peak Load Reduction/Energy Efficiency Program	Phone: (916) 351-3842 Website: http://www.energy.ca.gov/peakload/documents/index.html
	Incentive Funds	Water and Wastewater Generation Retrofit Program	Phone: (916) 351-3842 Website: http://www.energy.ca.gov/peakload/documents/index.html
California State Department of Water Resources, Division of Planning and Local Assistance (DWR-DPLA)	Grant	AB 303-Local Groundwater Assistance Fund Grant Program	Harley H. Davis Phone: (916) 651-9229 For legal organizational and financial information contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/ab303/index.shtml
	Loan	Proposition 13 - Agricultural Water Conservation Capital Outlay Loan	Marsha Prillwitz Phone: (916) 651-9674 For legal, organizational and financial information questions contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/ag-loan/index.shtml Website: www.owue.water.ca.gov/
	Grant	Proposition 13 Program – Groundwater Storage Construction Grant	Ralph Svetich Phone: (916) 651-9218 For legal organizational and financial information contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/gwater-grant/index.shtml

TABLE B.1 - SUMMARY OF FINANCIAL SUPPORT OPPORTUNITIES POTENTIAL STATE FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California State Department of Water Resources, Division of Planning and Local Assistance (DWR-DPLA)	Loans	Proposition 13 Program – Groundwater Recharge Construction Loan	Ralph Svetich Phone: (916) 651-9218 For legal organizational and financial information contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/gwater-loan/index.shtml
	Grant	Proposition 13 Program - Infrastructure Rehabilitation Construction Grant	David A. Rolph Phone: (916) 651- 9635 For legal organizational and financial information contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/infra-con/index.shtml
	Grant	Proposition 13 Program - Infrastructure Rehabilitation Feasibility Study Grant	David A. Rolph Phone: (916) 651-9635 For legal organizational and financial information contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/infra-feas/index.shtml
	Loan	Proposition 13 and 82 Program – Local Water Supply Project Construction Program	Questions about Part A, organization, financial and legal information, should be referred to: Linda Buchanan Department of Water Resources - Loans and Grants Program Phone: (916) 651-9645 Questions about Parts B - Project Description, C - Engineering and Hydrology Feasibility, E - Statewide Interest, F - Critical Need and G - Environmental Documentation, should be referred to: David A. Rolph Department of Water Resources - Division of Planning and Local Assistance Loans and Grants Program Phone: (916) 651-9635 Questions about Part D should be referred to: Lorraine Marsh Division of Planning and Local Assistance - Department of Water Resources Phone: (916) 653-6414 Website: http://www.dpla2.water.ca.gov/grants-loans/matrix.html

TABLE B.1 - SUMMARY OF FINANCIAL SUPPORT OPPORTUNITIES POTENTIAL STATE FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California State Department of Water Resources, Division of Planning and Local Assistance (DWR-DPLA)	Grant	Proposition 13 - Urban Water Conservation Capital Outlay Grant	Marsha Prillwitz Phone: (916) 651-9674 For legal organizational and financial information questions contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/urb-capout/index.shtml Website: www.owue.water.ca.gov/
	Grant	Proposition 50 - the Water Quality, Supply and Safe Drinking Water Projects, Coastal Wetlands Purchase and Protection, Bonds and Initiative Statute	Website: http://www.dof.ca.gov/fisa/bag/process.htm Website: http://www.owue.water.ca.gov/finance/grants_2004/grants.cfm
	Loan	Proposition 82 Program – Local Water Supply Project Feasibility Study Loan	David A. Rolph Phone: (916) 651-9635 For legal organizational and financial information questions contact: Linda Buchanan Phone: (916) 651-9645 Website: www.dpla2.water.ca.gov/grants-loans/prop82-feas/index.shtml
	Technical Assistance and Grant	Urban Streams Restoration Program	Southern District Coordinator: Susan Woolam Phone: (818) 543-4630 Sara Denzler Phone: (916) 651-9625 Website: http://wwwdpla.water.ca.gov/environment/habitat/stream/ Website: http://www.watershedrestoration.water.ca.gov/urbanstreams/
California State Water Resources Control Board (SWRCB)	Loan	Nonpoint Source Loan: CWA 319(h)	Lauma Jurkevics, Chief Regional Programs Unit Division of Financial Assistance, SWRCB Phone: (916) 341-5498 Website: http://www.swrcb.ca.gov/nps/docs/fldplsrf.doc Website: www.arb.ca.gov/ba/omb/farg/ombwfarg.htm#sba7 Website: http://www.epa.gov/owow/nps/funding.html

TABLE B.1 - SUMMARY OF FINANCIAL SUPPORT OPPORTUNITIES POTENTIAL STATE FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California State Water Resources Control Board (SWRCB)	Loan	Proposition 13 - Water Recycling Construction Program	Diana Robles, P.E. Chief Office of Water Recycling, State Water Resources Control Board, Division of Clean Water Programs Phone: (916) 341-5513 Website: http://www.swrcb.ca.gov/recycling/index.html
	Grant	Proposition 13 - Water Recycling Facilities Planning Grant Program	Diana Robles, P.E. Chief Office of Water Recycling, State Water Resources Control Board, Division of Clean Water Programs Phone: (916) 341-5513 Website: http://www.swrcb.ca.gov/recycling/index.html
	Grant	Proposition 40 Program – Clean Beach Initiative (CBI)	Christopher Stevens Senior Water Resources Control Engineer Phone: (916) 341-5698 Website: http://www.swrcb.ca.gov/cwphome/beaches/final_prop40_projects.html
	Grants	Small Community Grants	Farouk Ismail, Ph.D. Supervising Engineer State Water Resources Control Board Phone: (916) 227-4563 Website: http://www.swrcb.ca.gov/funding/index.html
	Loan	State Revolving Fund (SRF) Program	Christopher Stevens State Water Resources Control Board Phone: (916) 341-5698 Website: http://www.swrcb.ca.gov/cwphome/lgb/srf/index.html
	Loan	SRF Program – Nonpoint Source Loan	Website: http://www.swrcb.ca.gov/funding/index.html

TABLE B.1 - SUMMARY OF FINANCIAL SUPPORT OPPORTUNITIES POTENTIAL STATE FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California State Water Resources Control Board (SWRCB)	Loan	SRF Loan Program - Water Recycling Projects	Diana Robles, P.E. Office of Water Recycling State Water Resources Control Board Phone: (916) 341-5513 Publicly-Owned Treatment Works Dischargers State Water Resources Control Board Division of Financial Assistance Contact: Jeff Albrecht Phone: (916) 341-5717 All Other Dischargers State Water Resources Control Board Division of Financial Assistance Contact: Paul Marshall Phone: (916) 323-4201 Website: http://www.swrcb.ca.gov/recycling/index.html

APPENDIX C - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
US Army Corps of Engineers (USACE)	Cost Shared 65/35 Federal/Local	Section 206 Aquatic Ecosystem Restoration	Andy Miller, Assistant Chief of Planning Division U.S. Army Corps of Engineers Phone: (213) 452-3784
	Cost Shared 50/50 Federal/Local	Section 503 Watershed Management, Restoration, and Development (Order 96-Water)	Dan Young, Assistant Chief of Project Management Division U.S. Army Corps of Engineers Phone: (213) 452-3972
	Cost Shared 75/25 Federal/Local	Section 1135 Project Modifications for the improvement of the Environment	Andy Miller, Assistant Chief of Planning Division U.S. Army Corps of Engineers (213) 452-3784
	Cost Shared	Water Resources Development Act (WRDA), Section 219 — "Environmental Infrastructure"	Dan Young, Assistant Chief of Project Management Division U.S. Army Corps of Engineers Phone: (213) 452-3972
U.S. Bureau of Reclamation (Reclamation)	Formula Grant	Title XVI - Reclamation Wastewater and Groundwater Study and Facilities Act	Richard A. Martin, Office of the Commissioner, Bureau of Reclamation Phone: (303) 445-3710 Bill Steele, Manager, Southern California Area Office Phone: (909) 695-5310 Website: www.cfda.gov/public/viewform.asp?progid=442
U.S. Department of Agriculture (USDA) – Rural Development /Natural Resources Conservation Service	Loans and Grants	Water and Wastewater Disposal Loans and Grants Program	Ted K. Matsuo - Program Director Hawaii State Office Empowerment Zone Coordinator, Rural Development Phone: (808) 983-8310 Dan Johnson for Ventura County Phone: (661) 336-0967 Charlie Boone for Riverside, Orange, Inyo, Los Angeles, and San Bernardino Counties Phone: (760) 342-4624 Carolyn Mueller or Alicia Salgado for Imperial and San Diego Counties Phone: (760) 352-4418 Website: www.rurdev.usda.gov/ca (Utility Program) For Pre-application Guide: www.usda.gov/rus/water/ Website: http://rdinit.usda.gov/regs/formtoc.html Website: www.rurdev.usda.gov/wa/wwdlg.htm

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
Department of Commerce, Economic Development Administration	Grant	Economic Development Administration (EDA) Federal Program Summary	Wilfred Marshall, Area Representative Phone: (310) 348-5386 Akhtar A. Alvi, Regional Environmental Officer Phone: (303) 844-1418 Website: www.eda.doc.gov
	Grant	Grants for Public Works and Economic Development	David L. McIlwain, Director, Public Works Division Phone: (202) 482-5265 Deena R. Sosson, California (Central) Phone: (916) 498-5285 Dianne V. Church, California (Central Coastal) Phone: (408) 535-5550 Website: http://www.doc.gov/eda/
U.S. Department of Energy	Grant	National Industrial Competitiveness through Energy, Environment, and Economics (NICE3)	Phone: (303) 275-4728 Website: http://www.oit.doe.gov/nice3/ Website: http://www.cfda.gov/static/81105.htm
U.S. Department of Health and Human Services Indian Health Service	Grants and Loans	American Indian Health Programs	IHS California Area Office 650 Capitol Mall Suite 7-100 Sacramento, CA 95814 Phone: (916) 930-3927 Website: http://www.ihs.gov Website: http://www.ihs.gov/FacilitiesServices/AreaOffices/California/Universal/PageMain.cfm?p=10
U.S. Department of the Interior Bureau of Indian Affairs	Grants and Loans	American Indian Tribe Water Management and Infrastructure Programs	Bureau of Indian Affairs Southern California Agency 2038 Iowa Avenue, Suite 101 Riverside, CA 92507-0001 Phone: (909) 276-6624 Website: http:// www.doi.gov/bureau-indian-affairs.html

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
U.S. Environmental Protection Agency (USEPA)	Grant	Brownfields Economic Redevelopment Initiative - Brownfields Grant	U.S. Environmental Protection Agency Office/Division, Brownfields Team Bobbie Kahan Phone: (415) 972-3143 U.S. Environmental Protection Agency - OSWER Outreach and Special Projects Staff Phone: (202) 260-4039 RCRA/Superfund Hotline: Phone: (800) 424-9346 Website: www.epa.gov/brownfields Website: http://www.epa.gov/brownfields/rlflst.htm Website: http://www.epa.gov/brownfields/mmatters.htm#fund
	Grant	Clean Lake Grant Program	Regional Clean Lake Coordinator, U.S. Environmental Protection Agency Region IX - Wendell Smith Phone: (415) 744-2018 Website: http://www.epa.gov/owow/lakes/cllkspgm.html
	Grant	Clean Water Act (CWA) Section 104(b)(3)-Wetlands Program Development Grant	Connie Cahanap, Office of Wetlands, Oceans, and Watersheds, Wetlands Division Phone: (202) 566-1382 Website: www.epa.gov/fedrgstr/EPA-WATER/2002/August/Day-26/w21670.htm Website: http://yosemite.epa.gov/ water/grant.nsf. Website: www.epa.gov/owow/wetlands/grantguidelines/preproposal.html
	Loan	Clean Water State Revolving Fund (CWSRF) Program	In California issued through SWRCB: Phone: (916) 341-5250 Juanita Licata, Water Division Phone: (415) 972-3450 The Clean Water State Revolving Fund Branch Phone: (202) 260-7359 For Water Conservation and Reuse, The Municipal Support Division Phone: (202) 260-0116 Website: www.epa.gov/OWM Website: www.epa.gov/owmitnet/cwfinance/cwsrf/index.htm Website: www.swrcb.ca.gov/funding/index.html

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
U.S. Environmental Protection Agency (USEPA)	Loan	Drinking Water State Revolving Fund (DWSRF)	Infrastructure Branch, Office of Ground Water and Drinking Water Phone: (202) 260-5526 Local California Contact: Robin Hook, Department of Health Services Phone: (916) 323-0871 Website: http://www.epa.gov/safewater/dwsrf.html Website: http://www.dhs.cahwnet.gov/org/ps/ddwem/SRF/SRFindex.htm
	Grant	Environmental Education Grant Program	Office of Planning and Public Affairs, U.S. Environmental Protection Agency Office/Division - Deirdre Nurre Phone: (415) 974-4290 Website: www.epa.gov/enviroed/solnotice01.html
	Grant	National Estuary Program (NEP)	Regional or Local Office: Water Management Division, Region IX Betsy Salter Phone: (202) 566-1244 Headquarters Office: Darrell Brown, Chief, Coastal Management Branch, Oceans and Coastal Protection Division, Office of Wetlands, Oceans, and Watersheds Phone: (202) 566-1256 Website: http://aspe.os.dhhs.gov/cfda/p66456.htm Website: http://www.epa.gov/owow/estuaries/ Website: www.epa.gov/owow/lakes/cllkspgm.html
	Grant	Nonpoint-Source Water Pollution Control	Syed Ali, State Water Resources Control Board, Water Pollution Prevention Section Phone: (916) 341-5555 Bill Campbell, State Water Resources Control Board, Watershed Project Support Section Phone: (916) 341-3849 Nonpoint Source Control Branch, U.S. Environmental Protection Agency Phone: (202) 566-1163 Website: http://www.epa.gov/owow/nps/ Website: http://www.cfda.gov/static/66460.htm

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
U.S. Environmental Protection Agency (USEPA)	Grant	Pollution Prevention Incentives for States (PPIS)	For general information contact: Barbara Cunningham, Acting Director, Environmental Assistance Division, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency Phone: (202) 554-1404 For technical information contact: Lena Ferris, Pollution Prevention Division, Office Pollution Prevention and Toxics, U.S. Environmental Protection Agency Phone: (202) 564-8831 REGION IX: Pollution Prevention Coordinator Phone: (415) 744-2190 Lena Hann, Office of Pollution Prevention, U.S. Environmental Protection Agency Phone: (202) 260-2237 For State Grants: Leif Magnuson, P2 Team Phone: (415) 972-3286 Website: www.epa.gov/p2/grants/ppis/ppis.htm Website: www.epa.gov/p2/pubs/ppisbro.txt
	Grant	State and Tribal Assistance Grant (STAG)	Ruth Miller, Tribal Program Coordinator Phone: (202) 564-4299 Clancy Tenley, Tribal Program Manager, U.S. Environmental Protection Agency, Region IX Phone: (415) 744-1607 Website: http://www.epa.gov/compliance/planning/state/grants/stag/index.html Website: http://www.epa.gov/fedrgstr/EPA-GENERAL/2003/March/Day-28/g7509.htm
	Grant	State and Tribal Enforcement Grant Program	Ruth Miller, Tribal Program Coordinator Phone: (202) 564-4299 Clancy Tenley, Tribal Program Manager, U.S. Environmental Protection Agency, Region IX Phone: (415) 744-1607
	Grant	Water Quality Cooperative Agreements under Clean Water Act 104(b)(3)	Mark Flachsbart, Program Coordinator Region IX Phone: (415) 972-3584 Website: http://www.cfda.gov/static/66463.htm Website: http://www.epa.gov/OW-OWM.html/mab/indian/sec104.htm
	Grant	Watershed Assistance Grant (WAG)	National Office: Phone: (503) 241-3506, ext. 13 Phone: (800) 490-9198 to order a copy of the Clean Water Action Plan Website: www.cleanwater.gov Website: www.rivernetwork.org/howwecanhelp/index.cfm?doc_id=94

TABLE C.1 - SUMMARY OF POTENTIAL FEDERAL GOVERNMENT FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

Funding Agency	Funding Type	Program Name	Contact/Info
Department of Housing and Urban Development (HUD)	Grant	Community Development Block Grants (CDBG) Program	May Lee, CDBG Program Acting Deputy Director Phone: (213) 894-8000, ext. 3305 Phone: (202) 708-1112 California Department of Housing and Community Development Block Grant Division Phone: (916) 445-6000 Website: http://housing.hcd.ca.gov/ca/cdbg/ Website: http://www.hud.gov/offices/cpd/communitydevelopment/programs/stateadmin/index.cfm Website: http://www.cfda.gov/static/14248.htm
	Grant	HUD Grant For Construction of Wastewater Treatment Facilities	Elizabeth Mcdargh, Environmental Officer Phone: (213) 894-8000, ext. 3319 Website: www.hud.gov/local/ca/community/contacts.cfm
	Competitive grant and loan	Super Notice of Funding Availability (SuperNOFA) – BEDI Grant Brownfields Economic Development Initiative (Unit for local government communities)	Lisa People Phone: (202) 708-0614, ext. 4456 Phone: (800) HUD-8929 Larry Davis, Community Development Representative, Department of Housing and Community Development Phone: (916) 322-9864 Website: www.hud.gov/grants (SuperNOFA grants) Website: www.hud.gov/library/bookshelf18/supenofa/nofa02/fundsavail/cfm
U.S. Department of Transportation (DOT)	Grant	Metropolitan Transportation Improvement Program - Transportation Equity Act for the 21st Century (TEA-21)	Planning and Program Contact: Brent Felker, Program Director of Construction Phone: (916) 654-5267 Joan Sollenberger, Transportation Planning Phone: (916) 653-1818 State Department of Transportation California Department of Transportation: Phone: (916) 654-5267 Marsha Mason, Transportation Enhancements Coordinator Phone: (916) 654-5275 Website: www.dot.ca.gov/hq/TransEnhAct/ Website: www.dot.ca.gov Website: http://www.fhwa.dot.gov///////tea21/index.htm Website: http://www.fhwa.dot.gov///////tea21/factsheets/index.htm Website: http://www.usmayors.org/uscm/tea21/faqs.htm Website: http://www.usmayors.org/uscm/tea21/

APPENDIX D - SUMMARY OF POTENTIAL NONGOVERNMENTAL FUNDING MECHANISMS FOR RECYCLED WATER PROJECTS

TABLE D.1 – SUMMARY OF POTENTIAL NONGOVERNMENTAL FUNDING

Funding Agency	Funding Type	Program Name	Contact/Info
California Municipal Utilities Association (CMUA)	Bond	Financing Authority for Resource Efficiency of California (FARECal)	Jerry Jordan, Executive Director Phone: (916) 441-1733 Website: http://cmua.org/farecal.htm
California Special District Association (CSDA)	Tax-exempt Financing (e.g., Certificates of Participation (COPs); Interim Financing; Investment Management; as well as Lease/Installment Purchase Financing	CSDA Finance Corporation Program	Marleen Towns Phone: (916) 641-2773, ext. 12 Website: www.csda.net/csdafc.htm Website: www.csda.net/spcldist.htm Website: www.csda.net/membens.htm
League of California Cities	Loan	California Statewide Communities Development Authority (CSCDA) ("California Communities")	SCIP Program for Developers James Hamill, Program Director California Statewide Communities Development Authority Phone: (925) 933-9229 ext. 216 Website: www.cacommunities.com Website: www.cacities.org/doc.asp?id=4116 Website: https://secure.cacommunities.com/cacomm/apps/scip/ Water and Wastewater Bonds Mimi Henderson, Underwriter Henderson Capital Partners Phone: (510) 835-0610 Website: https://secure.cacommunities.com/cacomm/apps/water/ Website: http://www.ebondpool.com/info/water/info.html
WateReuse Foundation	Research Proposals	Research Contracts	G. Wade Miller, Executive Director Phone: (703) 684-2409, ext. 1 Website: www.watereuse.or/pages/rfpmain.htm

APPENDIX E - FUNDING APPLICATION FORMS

Attached on CD are funding applications and other pertinent data for a number of the programs that were described in Appendices A through D. The CD also contains the State of California *2002 DWR Recycled Water Task Force Final Report* and the California Urban Water Agency *Urban Water Recycling Feasibility Assessment Guide*. A list of the agencies for which information is provided on CD is listed below:

- Metropolitan Water District of Southern California
- San Diego County Water Authority
- California Department of Water Resources
- California State Water Resources Control Board
- U.S. Department of Commerce, Economic Development Administration
- U.S. Department of Housing and Urban Development
- U.S. Department of Energy - National Industrial Competitiveness Through Energy, Environment, and Economics
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency
- California Municipal Utilities Association
- California Special Districts Association
- League of California Cities
- WateReuse Foundation

APPENDIX F - SUMMARY OF EXISTING FUNDING SOURCES ADVANTAGES AND DISADVANTAGES- CITY OF LOS ANGELES INTEGRATED RESOURCE PLAN

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
	State of California Loan and Grant Programs					
State	Clean Water State Revolving Fund	Wastewater, Stormwater, and Recycled Water projects	High	Accessible Low interest rate	Timely availability	
State	Proposition 13 Bond Proceeds	Stormwater projects	Unknown	Accessible No repayment	Subject to availability and size limits	SWRCB application and legislation lobbying
State	Proposition 40 Bond Proceeds / Clean Beach Initiative	Stormwater and Recycled Water projects	Good	Accessible No repayment	Subject to availability and size limits	SWRCB application and legislation lobbying
State	Proposition 50 Bond Proceeds	Stormwater projects	Good	Accessible No repayment	Subject to availability and size limits	SWRCB application and legislation lobbying
State	Clean Beach Initiative	Stormwater projects	Available Unknown	Accessible No repayment	Subject to availability and size limits	SWRCB application
State	Water and Wastewater Facilities Peak Load Reduction/Energy Efficiency Program, California Energy Commission	Wastewater projects	Unknown	Accessible	Probably limited funding	

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
State	Water and Wastewater Generation Retrofit Program, California Energy Commission	Wastewater projects	Unknown	Accessible	Probably limited funding	
State	Department of Water Resources	Recycled Water projects	Good	No repayment Up to $5.0 million per project	Competitive and subject to availability	
State Legislation	Direct Appropriations for Specific Capital Projects	Wastewater and stormwater projects	Uncertain	No repayment	Significant administrative time required	Depends on state budget Specific appropriations can be part of a line item for an existing Federal program or as part of General Appropriations
	Federal Grant Programs					
U.S. Commerce	Department of Commerce Grants for Public Works	Wastewater and Stormwater projects	Available	Access No repayment	50 Percent matching funds usually required	Economic impact statement Must promote economic development
U.S. DOT	Metropolitan Transit TEA-21 Program	Stormwater projects nonpoint-source-related projects	Unknown	Access No repayment	Subject to availability and size limits	

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
USEPA	USEPA Program Grants	Wastewater and Stormwater projects	Unknown	No repayment Potentially large	Needs line item appropriation	Federal lobbying required
USEPA	Nonpoint-Source Implementation Grants, Clean Water Act, Section 319	Stormwater projects		Accessible through SWRCB	Availability is very competitive	
USEPA and Other Federal Agencies	Direct Federal Appropriations	Wastewater and Stormwater projects	Unknown	No repayment	Significant administrative time involved Political uncertainties	Specific appropriations can be part of a line item for an existing Federal program or as part of General Appropriations
U.S. Bureau of Reclamation	Title XVI funds	Recycled Water projects	High	Ongoing progress	Requires lobbying	Subject to Federal budget constraints
USACE	Army Corps of Engineers Civil Works Projects	Stormwater projects	Available	Shared Federal costs Project-specific authorization is not required	Projects must be economically justified	
U.S. HUD	U.S. Housing and Urban Development Community Development Block Grant Program – Entitlement Grants	Wastewater projects	Subject to Availability	Stable program	Detailed submittal and report process Must be a distressed area	

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
	Private Sources					
Private	Revenue Bonds	Wastewater and Stormwater projects	Available	Accessible Known procedures	Market interest rates Maintenance of bond credit ratings requires regular revenue enhancements or cost containment	Maintenance of credit ratings through sufficient debt coverage
Private	Commercial Loans	Wastewater and Stormwater projects		Loan term, interest rate, and repayment period are negotiable	Higher interest rates	
Private	General Obligation Bonds	Wastewater and Stormwater projects		Backed by taxing power High security and lower interest rates	Voter approval likely required General public may pay for localized projects	
Private	Moral Obligation Bonds	Wastewater and Stormwater projects		Lower interest rates More saleable and does not count against debt limitations	Approval by elected officials required	
Private	Double Barreled Bonds	Wastewater and Stormwater projects		Lower interest rates More saleable	Counts against debt limitations	May have other government limitations
State	California State Communities Development Authority Pooled Bond	Wastewater projects		Lower cost of issuance Lower interest rates	No benefit for communities with high credit rating or large borrowing requirements	

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
Private	Privatization	Wastewater projects		Cash injection and possible operating efficiencies	Careful study required May be politically difficult	
	Sewerage Charges					
Customers	Sewer Service Charges	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
Customers	Sewer Facility Charges	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
Customers	Industrial Waste Quality Surcharge	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
Customers	Industrial Waste Permit Application, Inspection and Control Fees	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
Customers	Contract Agency Fees	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
Customers	Miscellaneous	Wastewater projects	Ongoing	Current practice	Capital funding amount limited	Rate increases may be needed
	Other Capital Funding Options					
Interagency funding	Two or more agencies	Recycled Water projects	High	Promotes efficiency	Lengthy negotiations	
Metropolitan Water District	Local Resources Program	Recycled Water projects	High	Ongoing program	New funding will be more competitive	Application and evaluation required
Customers	Special Reserves	Wastewater projects	High	Implemented in the past	Limited capital funding	

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

Appendix F[1]

Summary of Potential Funding Sources, Revenues and Relative Advantages and Disadvantages

Funding Source	Name and Brief Description of Funding Mechanism	Applicability	Potential for Revenue	Primary Advantages	Primary Disadvantages	Additional Implementation Considerations (if applicable)
Customers	Special Assessments	Wastewater projects	Unknown		Requires public outreach and pubic approval	Funding for a specific geographical area
Customers	Pay-As-You Go	Wastewater projects	Low	Avoids long-term debt Eliminates interest costs and cost of debt		Not an option for large communities with significant capital requirements
Customers	Special Purpose Local Option Sales Tax	Wastewater projects	Low in the short term	Funding diversification	Significant public outreach needed, and competition from other City programs	
Customers	System Development Charges and Impact Fees	Wastewater projects	High	Connection fees are current practice	Fees might be high in some areas	The level and structure of the fees will need to be reviewed
Customers	Impact Fees	Wastewater projects				

NOTES:

[1]This information was developed by *City of Los Angeles Integrated Resource Plan* in the Technical Memorandum entitled *Draft Los Angeles Bureau of Sanitation Fundi*ng Sources and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update*.

APPENDIX G - CITY OF LOS ANGELES SEWER SERVICE CHARGES AND FEES/ RETAIL WATER AND SEWER RATE STRUCTURES

Table G-1
City of Los Angeles Wastewater Program (Draft)
Sewer Service Charges and Fees

Description	Charge
Sewer Service Charges	
General Service	
Service Charge	
Monthly	$0.00/Bill
Bimonthly	$0.00/Bill
Normal Strength Volume Charge	$2.26/hundred cubic feet (hcf)
Optional Low-Strength Volume Charge [a]	
Flow Component	$1.475/hcf
Wastewater Strength Components	
Biochemical Oxygen Demand	$0.258/pound
Suspended Solids	$0.343/pound
Low-income Subsidy Surcharge [b]	$0.019/hcf
Lifeline and Low-Income Customers	
Service Charge	
Monthly	$0.00/Bill
Bimonthly	$0.00/Bill
Normal Strength Volume Charge [c]	
First 9 hcf/month	$1.559/hcf
Over 9 hcf/month	$2.260/hcf
Industrial Waste Fees	
Quality Surcharge Fee [d][e]	
Biochemical Oxygen Demand (greater than 215 milligrams per liter [mg/L])	$0.258/pound
Suspended Solids (greater than 205 mg/L)	$0.343/pound
Permit Application Fee	$356.00/permit
Inspection and Control Fees [d]	
Class 1	$244.00/year
Class 2	$488.00/year
Class 3	$732.00/year
Class 4	$976.00/year
Class 5	$1,220.00/year
Class 12	$2,928.00/year
Significant Industrial User Fee [d]	
SIU Group I	$4,191.00/year
SIU Group II	$4,054.00/year
SIU Group III	$2,219.00/year
SIU Group IV	$3,466.00/year
SIU Group V	$2,516.00/year
SIU Group VI	$2,359.00/year
SIU Group VII	$0.00/year
Sewerage Facilities Charge	
Predevelopment Tract Map Fee	$4,127.00 / acre
Flow Component	$362.00/100 gallons per day (gpd)
Wastewater Strength Components	
Biochemical Oxygen Demand	$188.00 / pound / day
Suspended Solids	$171.00 / pound / day
Private Septage Disposal Fees	
Inspection and Control Fees	
Average Flow less than 1,000 gpd	$488.00 / year
Average Flow greater than 1,000 gpd	$1,220.00 / year
Treatment Cost Recovery User Fee	$0.022 / gallon

Table G-1
City of Los Angeles Wastewater Program (Draft)
Sewer Service Charges and Fees

Description	Charge
Septage Disposal Fees	
Permit Fee	$2,000.00 / year / vehicle
User Fees	
Septage Generated Inside the City	$0.0256 / gallon
Septage Generated Outside the City	$0.0496 / gallon

Source: *Draft Wastewater Revenue Program*, September 2002.

Notes:

(a) Equivalent to normal strength volume charge of $2.26/hcf if wastewater strength is equal to the normal strength values of 215 mg/L for Biochemical Oxygen Demand (BOD) and 205 mg/L for suspended solids. To qualify for this optional volume charge, users must submit analytical data on its discharge demonstrating that the average strengths of its BOD and/or suspended solids discharged over a one-year period are less than one or both of the normal strength values.

(b) Equal to 0.840 percent times the General Service volume charge of all General Service customers.

(c) The General Service rate is reduced by 31.0 percent for the first 18 hcf of each 2-month billing period or the first 9 hcf for each 1-month billing period.

(d) Billed quarterly in arrears.

(e) Applied to wastewater having strength characteristics in excess of 215 mg/L for BOD and/or 205 mg/L for suspended solids.

The following information presented in this appendix is from the *City of Los Angeles Draft Wastewater Plan*, which was developed in September 2002.

I. Retail Sewer and Water Rate Structures

Sanitary Sewer Surcharges

A sanitary sewer surcharge uses a customer's metered water consumption as a basis for calculating a sewer charge. The reason that water consumption is used is that the water meter reading is the most feasible way of determining the approximate volume of sewage discharged by a customer. Since it is not feasible to install sewage meters on each service connection due to cost, maintenance, and meter accuracy issues, water meters readings are used as a proxy.

The use of water meter reading does not precisely reflect actual sewage volumes. Some water does not enter sanitary sewers directly, such as lawn watering in the case of residential customers and cooling water in the case of nonresidential customers. On the other hand, there is flow entering the sewer system from inflow from unmetered service connections and infiltration of groundwater that is not reflected in the water meter readings. Generally water meter readings are used without adjustment in calculating sewer surcharges. The justifications for this are that nonsanitary water use is balanced by inflow and infiltration and that water meter readings are a potential way of apportioning sewer costs to customers.

Some sewer utilities adjust the residential sewer surcharge to address customer concerns about billing for sewer usage based on water meter readings that include outdoor use in the summer:

- **Winter Consumption as Base for Summer Sewer Billing –** Since there is much lower outdoor use in the winter, some utilities bill sewer charges in the summer based on each customer's winter water meter readings. This approach has acceptance from customers, but requires complete meter readings and a billing system that can accommodate this somewhat complex approach.

- **Summer Discount –** The sewer bill in the summer is based on water meter readings discounted, for example, by 15 percent to 20 percent to adjust for outdoor use. This approach is simple to apply.

- **Maximum Summer Sewer Bill –** Sewer bills in the summer are based on a threshold of an average family sanitary sewage discharge level. Once the charge reaches this predetermined level, no additional sewer charges are levied. This has a disadvantage of not helping small, careful customers while benefiting larger families and those who are wasteful water users.

These approaches require the sewer rates to be increased to offset the loss in revenue resulting from reducing the volume used to calculate the sewer bills. As a result, they typically do not change the average sewer bill paid. Except for the first approach that differentiates between customers, they are essentially a public relations gesture.

If conservation is a priority, an adjustment for summer usage is not normally made for sewer charges since applying the sewer charge to the entire summer water use increases the incentive to use less water. In the case of nonresidential customers, some utilities make special adjustments where significant nonsanitary water use can be demonstrated. Plastics manufacturing with its heavy cooling load would be an example (as long as the waste cooling water is not discharged to the sanitary sewer).

Fixed Charges

Neither Los Angeles Department of Water and Power (LADWP) nor the City of Los Angeles Bureau of Sanitation (Bureau of Sanitation) use a fixed monthly charge for either water or sewer customers. A fixed charge can be a single charge applying to all customers or a charge that varies across classes of customers. The rate structure that is a one-part tariff using a fixed charge is called a flat rate.

Flat rates usually only apply to residential customers. Flat rate charges may be the same for all customers or they may vary based on some attribute of the customer such as household size, assessed property value, or the number of water using fixtures in a house. The fixed charge in a two-part tariff can be a uniform charge for all customers, or can vary. The formats for a fixed charge in a two-part tariff are described below:

Single or Uniform Fixed Charge – This is a fixed charge to each customer that is levied in every bill and that is independent of the amount of water used. Many water system and sewer costs do not vary with volume and a fixed charge is a fair way of recovering a portion of such costs. It is usually used to recover costs directly related to customers such as billing, collecting and metering costs. A single fixed charge is easy to calculate and less trouble to apply compared to variable charges (see below) since tracking of a customer's meter size is not needed. This rate structure, however, is generally used in small municipalities where larger meters are few and resources for keeping updated billing records is less.

Meter Charge – This is a fixed charge per month for each customer that varies by the size of a customer's meter or water service. This charge is used by most smaller municipalities in California and nationwide. The meter size is normally used rather than the customer's service size because the meter is an indicator of the supply capacity provided to the customer. The charge varies because some of the cost components that are recovered through the fixed charge vary with meter size. For example, meter and service pipes within the road allowance and meter reading costs increase with meter size. Other costs such as billing costs vary less with meter size. Water system fire protection capacity costs are also often included in the fixed charge. The charge for large industrial meters are typically over a hundred times greater than the charge for a residential meter. Generally charges that vary by meter size are the fairest type of fixed charge.

Demand Charge – This is a fixed charge per billing period that is based on the customer's peak demand. Different approaches may be used to measure peak demand, but for a retail rate, maximum month demand in the previous year is appropriate. The measure of peak demand for a customer remains constant for the billing year. The demand charge can replace the meter charge as a fixed charge. This charge is common for electricity sales but not for water, especially at the retail level.

Minimum Bill - The fixed charge may or may not include a minimum consumption allowance. Where it does it is referred to as a minimum bill. The minimum bill provides the customer with a specified consumption allowance at no additional cost. The customer pays the minimum charge plus the volumetric consumption charge on any water used in excess of the consumption allowance. The minimum bill can be justified as a means of covering some fixed costs that are ongoing whether a customer uses water and sewer services or not. It provides a municipality with a revenue cushion that is unaffected by annual variations in use (usually related to seasonal use fluctuation for cooling and irrigation). The consumption allowance with a minimum bill should be sufficiently low that only a small percentage of customers pay only the minimum bill. Otherwise, the minimum bill starts to function like a flat rate charge.

Since costs that are variable over the short term may, for example, represent less than 10 percent of total costs, it is not practical to set fixed charges to recover the 90 percent or more of costs that are fixed. To do so would remove the incentive to meter. Fixed charges in the two-part tariff

are primarily used to recover customer-related costs for meters, services, billing, and collecting. They may also be used to recover certain capital costs such as those associated with the provision of capacity for fire protection.

Types of Volumetric Charge

Volumetric charges are levied for the amount of water and sewer discharge by a customer. Volumetric charges include uniform charges, declining blocks, increasing blocks, the inverted "U" or humpback blocks, the seasonal charge and the excess use charge.

Uniform Charge - The uniform charge applies a single volumetric charge to all usage. It is simple to calculate and apply and easy for customers to understand. In the simplest case, tariff calculations for the single block tariff involve dividing total budgeted costs that are to be recovered from the water tariff by total expected water sales. This charge does not attempt to refine the allocation of costs to customers in proportion to their peak demands, which are a factor in the cost of providing water system capacity.

Declining Blocks - The declining block volumetric charge decreases in steps as usage increases. Traditionally the consumption limits for the first block were set to encompass the largest amount that a customer in a single-family dwelling might use. The upper consumption limits for the 2nd block would encompass the consumption of most medium to large commercial customers, and the 3rd and subsequent blocks covered larger industrial users. A typical declining block volumetric charge structure therefore had at least 3 blocks. But declining block volumetric charge with only 2 blocks are frequently used now. This reflects an ongoing shift away from this type of charge due to their poor reputation for water conservation. It is argued that they do not promote water conservation since the price of water declines as more water is used.

Increasing Blocks - With increasing blocks the price of water increases with increasing use. This structure is designed to encourage water conservation. The first block for a customer class would be designed to cover the normal use of an average customer in that class. For subsequent blocks, the differential in the charge level should be designed to give a clear economic incentive to the customer to conserve water. This type of charge is most appropriate

for residential customers. It would be suitable for industrial customers where water availability limitations outweigh the disadvantages of shifting the cost burden to the largest users.

Seasonal Charge - Seasonal charges are high volumetric charges on all water used during the peak water demand season. The off-peak season or base charge applies to water consumed during the remainder of the year. Seasonal charges promote water conservation where seasonal demands are the target of conservation efforts. The rationale for a seasonal charge is that peak demands require over sizing of supply facilities relative to the capacity required to meet demand for most of the year. With a seasonal charge, the extra costs of this excess capacity are recovered directly from that component of demand that causes those costs.

Wholesale Rate Structures

Wholesale water rate structures resemble retail rate structures. They can be one or two part structures. One-part structures featuring a volumetric tariff are the most common wholesale rate among large U.S. cities, including the City of Los Angeles.

Two part wholesale structures consist of a volumetric charge and a fixed charge. These all resemble most of the retail rate structures described above. The main exception is that the block rate structures are not suitable at the wholesale level since block rate structures are designed to target the demand of relatively homogeneous classes of customers such as residential customers. Generally there are only a few wholesale customers and they do not fall into standard groups having similar demand characteristics.

Alternative Wholesale Rate Structures

The Uniform Rate Structure has no fixed charge and a constant volumetric rate is applied to all water and sewer services used in the billing period. This is the simplest and most common format for the wholesale rate structure.

Uniform Rate Structure with a Fixed Charge structure has a constant volumetric charge applied to all consumption plus a fixed charge. It is not usually found at the wholesale level, but resembles the situation where a uniform rate structure is used and additional charges are levied on local water retailers in the form of assessments against property or parcel taxes.

Seasonal rate structures impose a higher volumetric charge on all water sold during the peak demand season.

Excess Use Rate Structures impose a high volumetric charge on water sold during the peak demand season that exceeds a threshold based on off-peak season use.

Demand Charge Rate Structure rate structures feature a volumetric charge and a charge based on the customer's peak demand. Peak demand measured over a short period of time is the usual basis for the peak demand charge.

The appropriate measure will depend on the objective of the charge. For instance a peak demand charge that is used to allocate peak demand capacity costs to customers might use a daily or hourly measure of peak demand.

Lifeline Rates

The LADWP and Bureau of Sanitation Lifeline Rates are subsidized rates on a minimum volume of water for basic residential needs. It is a form of assistance to low-income households. Lifeline rates have increasing block rate structures in Los Angeles.

The lifeline rate structure provides the basic quantity of water needed by a household at a nominal and affordable fee. This helps low-income households but it also gives financial help to all customers since it usually applies to all customers. For this reason, it does not target the intended recipients effectively.

A direct assistance program serves as an alternative to the lifeline rate structure. Direct assistance can be provided in various ways. The direct assistance approach is clearly targeted to those customers who are most in need of help. It requires greater administrative effort on the part of the water and sewer agency. For those families receiving social support, welfare payments may already include an allowance for utility costs. But this does not help the working poor.

It might be possible to mount a program that allows households to apply for relief from a portion of their water bill. In this case, the onus is on the customer to take action to receive the benefit. The application would require that the customer provide some evidence of their

financial condition. Upon approval of their application, they would be charged a lower tariff or would receive a rebate on their water bill. Direct assistance may also be granted automatically to certain households such as those receiving social support.

II. Stormwater Utility Funding Mechanisms

Revenue requirements for stormwater management can be defined as the sum of capital and operating costs required to achieve goals. Stormwater programs are made up of the following components: administration and financial management, operations and maintenance, regulation and enforcement, engineering and planning, capital investment, public involvement and education, and other miscellaneous activities. For advanced stormwater programs the three biggest cost items tend to be operations and maintenance, capital investment, and regulatory compliance.

Stormwater programs are usually funded with both primary methods and secondary methods. Primary methods have the characteristic that they generally have adequate capacity and flexibility to fund the bulk of the stormwater program. These can be lumped into two categories: general fund revenues (property tax, franchise fees, local income tax and/or general sales tax based) and stormwater user fees.

Secondary funding methods are used to enhance equity or simplicity. These include various kinds of fees (e.g., impact fees, debt financing, grants, special assessments, improvement districts, and connection charges). Each of these secondary methods have conditions and limitations that restrict their use to specially targeted parts of the stormwater program.

Choice of funding mechanisms is driven by the goal of the program to be implemented. If a capital improvement program is undertaken, utilizing general tax revenue is probably not appropriate. Debt financing is the more likely method of choice, depending on the magnitude of the improvement, and can only be used for capital. Assessments can be a dedicated source of funds that may be available, but they require that the funds be spent in advance and recovered from those who benefit. Some stormwater agencies use impact and developer fees to assist in funding operations and improvements.

User Fee Methodology in the U.S. and City of Los Angeles

Stormwater utilities and associated charges have been implemented in cities and counties throughout the United States. Stormwater management typically is financed through a combination of the fee structures and funding mechanisms described below.

- **Municipal Property Taxes** - Maintained in general funds as undedicated revenues, taxes are used to fund stormwater operating and maintenance costs.
- **Stormwater Utility Fees** –These are variable charges and are often applied to water/sewer bills and dedicated to stormwater management expenditures.
- **Special Charges** - Developers often pay levies for new developments, including local improvement, frontage, and cash-in-lieu-of-construction charges.
- **Grants from Other Levels of Government** - Revenues have been made available to municipalities, as transfers from state or Federal governments.

The stormwater utility charge is a function of the desired level of service, political acceptance, and customer needs. Thus, the most common fee structure is a Stormwater Utility Fee that offers government some ability to establish a self-sufficient stormwater program.

While the Stormwater Utility Fee rate structure may vary, the rate is typically expressed as a dollar amount per Equivalent Residential Unit (ERU) or similar unit, such as Equivalent Dwelling Unit (EDU). The charge is a function of the amount of the total impervious area (i.e., intensity of development) and the statistically determined base unit (i.e., EDU, ERU).

The ERU is a unit of measure for impervious area and is based on a statistical analysis of total impervious area for single-family residential properties. For example, if the median total impervious area (building and nonbuilding) for a residential single-family detached property is 2,400 square feet, then 1 ERU equals 2,400 square feet. Some communities charge residential single-family attached properties (i.e., townhouses) a fraction of 1 ERU. The number of ERUs for nonresidential properties and multifamily residential properties is based on the properties actual total impervious area. For example, if a nonresidential or multifamily residential property has 24,000 square feet of total impervious area, then this property would be charged for 10 ERUs (assuming an ERU basis of 2,400 square feet).

The unit of measure for the City of Los Angeles is based on the Basic Assessment Unit (BAU), which is defined as, "[t]he proportionate run-off from the average single-family residential

parcel. The average single-family residential parcel has an area of 0.1526 acres (6,650 square feet) and a run-off factor of 0.4176." Hence, the BAU for the City is the product of these two numbers, which is 0.0637 acre (2,777 square feet). As such, one single-family residential parcel equals 1 EDU. The number of EDUs associated with nonresidential and multifamily parcels is computed as shown below. The parcel runoff factors are defined in the Municipal Code.

$$\text{EDU} = \frac{(\text{parcel area in acres}) \times (\text{parcel runoff factor})}{\text{BAU}}$$

APPENDIX H - ADDITIONAL FUNDING MECHANISMS

The information provided in this appendix was summarized from the *City of Los Angeles Integrated Resource Plan Technical Memorandum: Draft Los Angeles Bureau of Sanitation Funding Sources* and the *City of Riverside Phase I – Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update, Section 18 – Potential Funding Sources.*

Other Funding Mechanisms

There are several ways to finance recycled water projects. Capital items that have a useful life over a long period may be financed over that period or on a "pay-as-you-use" basis. The term of the borrowing should coincide with or be less than the estimated useful life of the improvements, if bond market conditions permit and the debt obligation is within the ability of the agency to pay. Many major projects are financed by a combination of resources and financing techniques. Some of the more common financing techniques applicable to water recycling projects are provided in this section.

Bonds

Bonds have been the primary method service utilities (e.g., regional wastewater agencies) use to fund capital-intensive construction projects. Using bonds enables issuers to spread out payment for a capital-intensive project over the useful life of a project. In addition to the revenue bonds, the following bonds are also available.

- ***General Obligation Bonds:*** GO bonds are issued by a municipal or county government to fund capital projects of the jurisdiction. GO bonds are secured by the general taxing power of the local jurisdiction. If planned revenues, which are usually characterized as property taxes but in some jurisdictions are income and sales taxes, fall short of the amount needed to meet bond payments, the jurisdiction may raise taxes to generate needed revenue. Proposition 46 passed in 1986 authorized the financing of public facilities through GO bonds. GO bonds are the most efficient form of long-term financing (other than SRF loans) because the bond issues do not require either a reserve fund or funded interest during construction of the project to be financed. Costs of issuance are lower because these bonds are easier to structure, reviewed from a legal standpoint, and analyzed for credit-worthiness. Costs are generally assessed to property owners in proportion to the assessed valuation of their properties. There is one problem associated with GO bonds, which is that

considerable inequity exists between agencies because assessed valuation of property in many cases would not be representative of the true cost of the property, especially if the property has not changed ownership. Property owners throughout the service area would in effect subsidize recycled water users. The major difficulty in issuing GO bonds is that they need to be approved by a two-thirds majority of the voters. Educating the voters about the issues requires time and resources.

- ***Revenue Bonds:*** Revenue bonds are secured solely by a pledge of revenues. Usually the revenues of an enterprise are derived from the facility that the bonds are used to acquire, construct, or improve. There is no obligation on the part of the enterprise to levy assessments for the payment of revenue bond service or for the maintenance and operation of the enterprise that produces the revenues that are pledged to pay bond service.
  One measure of revenue bond security is the "coverage" provided. Coverage is the ratio of net revenue to annual bond service requirements. Net revenue is defined as the difference between operating revenues (including interest but not including connections fees) and the operating expenses (not including expenses related to new connections or depreciation). For revenue bonds to be saleable, the issuer normally pledges to maintain net revenue of 1.25 times the annual bond service. The marketability of the bonds will be enhanced if it can be shown that the actual coverage provided by the net revenues will exceed the pledged ratio. In addition, revenue bond buyers demand further safeguards by the establishment of a reserve fund equal to the average or maximum annual bond service. This reserve is normally created from the proceeds of the bond sale. The reserve is maintained for the entire life of the bond issue to meet annual principal and interest requirements in case operating revenues are insufficient for bond service in any given year.
- ***Moral Obligation Bonds:*** A moral obligation bond is a revenue bond with an additional nonbinding pledge from the community to cover bond payments in the event of revenue shortfalls. Normally, revenue shortfalls are reported to local elected officials who then appropriate the requested amount to repay the bondholder, although there is no legally binding requirement forcing them to do so.
- ***Double Barreled Bonds:*** A double-barreled bond is a revenue bond that is backed by the "full faith and credit" of the issuing jurisdiction. Unlike the moral obligation pledge, the full faith and credit backing is a legally binding commitment of the issuing government.

- ***State Bond Banks and Pooled Bond Issues:*** A state bond bank is a state-created financial entity that issues pooled bonds, usually for participating smaller borrowers. By grouping together individual bond offerings, the security of the bond issues is increased resulting in a higher bond rating and a lower interest rate on the bonds.

Special Reserves

Many agencies establish reserve funds for capital equipment repair and replacement. Generally, a portion of user fee revenues and interest earnings on idle funds are placed in a separate account for this purpose. Some communities use these reserves to fund special projects, such as stormwater projects. For example, Atlanta, Georgia built reserves over time and recently used them to fund a portion of its stormwater system development requirements.

Special Assessments

Special assessments are used to provide and fund projects for a specific geographic area. Special assessment districts provide the legal arrangement to charge those receiving the service for capital and/or operating costs of the project. For example, combined sewer overflow (CSO) projects may be funded with special assessments.

Pay-As-You-Go

Smaller communities often, as a policy, prefer not to be in debt. They avoid the use of bonds, loans, or other capital funding approaches. These communities use a pay-as-you-go approach when project size allows funding with annual tax and other revenues. Paying for a portion of a large capital improvement program through user fees and other equity revenue sources is often a strong complement to debt financing. Some agencies historically maintain 25 percent equity-funding share for its capital program at the advice of financial advisors in order to maintain balance in its funding program and to aid in securing favorable credit ratings for borrowed funds.

System Development Charges

System development charges, sometimes referred to as capital recovery charges, are designed for utilities or local governments to recover their fair share of public funds previously spent in excess of the infrastructure capacities. The system development charge provides for deferral of participation in the capital costs until a particular piece of property associated with the system

is developed and utilizes the capacity of the system. This capacity was calculated and built into the system for future use. These costs can be calculated for growth-related projections, system buy-ins, marginal incremental costs, or value-of-service derived. Operating expenses usually are not part of the formula, only capital costs.

Impact Fees

Impact fees are a financial tool that works by charging a fee to developers, (for example, based on the impact new development will have on the recycled water system). Although available to some, it is a highly litigated issue and subject to many restrictions in California. Communities applying impact fees must develop a sound and rational model, quantifiable by proven numbers, before implementation of such a fee.

Special Purpose Local Option Sales Tax

The Special Purpose Local Option Sales Tax is a funding mechanism that is used in California to allow sales-tax revenues to be used either to fund capital projects directly or to provide debt service for bonded improvements.

Nonpoint-Source Implementation Grants

Nonpoint-Source Implementation grants are formulated to provide grants to the states to implement nonpoint-source mitigation projects and programs in accordance with Section 319 of the Clean Water Act. Examples of projects that 319(h) grants cover are implementation of best management practices in agricultural settings; implementation of Best Management Practice (BMP) systems for lake, estuary, or stream watersheds; and basinwide education programs. These grants are funded federally for 60 percent of the cost of the project, with a local match of 40 percent.

Stream Restoration Mitigation Bank

The Stream Restoration Mitigation Bank is a relatively new financial tool. This tool works for public or public and private relationships. Communities assess their streams for restoration, preservation, and enhancement, then submit a plan to the USACE for approval and the establishment of the bank. If local governments develop the bank on their own, they can sell the credits for the restoration of the stream segments. If a partnership is established, a bank is created and credits are sold for development of the streambank program.

Stormwater Revenue Bonds

Stormwater Revenue Bonds provide the funding for building stormwater infrastructure. In most cases, a stormwater utility is the identified dedicated revenue stream cited to demonstrate ability to pay back the bonds. Revenue bond investors, such as *Moody's* or *Standard & Poor's*, review the ability and willingness of the utility to repay the debt.

Revenue bonds are reviewed according to four guidelines:

- Current and future debt position
- Experience of financial performance
- Economic strength of the service area
- Ability of the management to operate the system and conduct payback of the debt

In most cases, the local government has established an enterprise fund financed through stormwater utility fees. To successfully secure stormwater revenue bonds, the utility should have developed a stormwater master plan, a capital improvement plan, and a history of collection. These three factors will demonstrate the calculated need and identify the net revenues required to pay back the acquired debt. This debt service repayment structure is usually spread over a period of 10 to 20 years.

Privatization (Public-Private Partnerships)

The generic term privatization encompasses a broad range of private sector participation in public services. Partnerships between the public and private sectors in the water and wastewater industry range from providing basic services and supplies to the design, construction, operation, and ownership of public utilities. The basic reasons that the public sector historically privatized services was to realize cost savings, utilize expertise, achieve efficiencies in construction and operation, access private capital, and improve the quality of water and wastewater services.

Although the vast majority of municipal wastewater facilities are publicly owned and operated, there are many examples of successful private operations of municipal facilities. The decision to privatize should be made by local governments and reflect a balanced evaluation of the financial and nonfinancial issues with the needs of the community.

Executive Order 12803 was issued in 1992 to simplify Federal requirements related to the disposition of the Federal interest in grant-funded infrastructure facilities. The Executive Order defines privatization to be "*the disposition or transfer of an infrastructure asset, such as by sale or by long-term lease, from a state or local government to a private party.*" The generic term privatization includes the Executive Order privatization definition. Where Federal grants have been used to fund a facility, the privatization transactions of Federal grantees must comply with Federal construction grant and property disposition regulations. When nonoperational revenues (e.g., concession, site access, host, transfer, or other types of payments) are received by Federal grantees from a private entity as a result of a privatization agreement, these revenues represent a disposition or transfer of a part or all of the grantee's interests in the asset. As a result, the grantee must request and receive approval from USEPA for the proposed privatization agreement ("disposition agreement") and obtain a deviation from the Federal grant regulations to dispose of and end the Federal interest in the asset.

The Executive Order allows state and local wastewater treatment investments to be recovered from the proceeds of disposition agreements prior to any claim by the Federal government for the funds provided by USEPA construction grants. Repayment of Federal grants only occurs to the extent that the nonoperational revenues received by the grantee exceed local, and possibly the state, investment in the assets. The Executive Order allows grant funds to be recouped at their depreciated value. In the event that all USEPA construction grants are fully depreciated, there is no Federal grant recoupment. However, even when grants are fully depreciated, Executive Order 12803 and Federal grant regulations requires the USEPA to approve disposition types of privatization agreements and issue deviations from the applicable grant regulations.

Privatization agreements are classified by USEPA as either contract operations or disposition types of agreements. Contract operations agreements involve operations, maintenance, equipment replacement, and management services. Contract operations agreements can allow infrastructure investments by the private entity under specific contract provisions. Contract operations agreements are not subject to USEPA review and approval under Executive Order 12803 or the USEPA grant regulations.

Disposition agreements, as defined by the Federal government, occur when a private entity encumbers the title of the asset or other interest and usually involves the payment of nonoperational revenues to the local government in various forms such as, concession fees, site access fees, or the transfer price. Under the Federal definitions governing grant programs, any nonoperational revenue received from a private entity constitutes an encumbrance, transfer, or disposition of the grantee's interest in the grant-funded asset. The grant regulations do not allow a grantee to encumber, dispose of, or transfer its interest in the asset to a private entity without Federal approval. As part of the USEPA review and approval of disposition agreements, the agency issues deviations from the Federal grant regulations that protect the Federal interest in the asset.

Planned Source of Funding

Debt financing has usually involved issuance of long-term bonds (20 to 30 years) relative to available system revenues to spread costs over the life of the debt-financed assets. This mitigates sharp service charge rate increases. However, over time there is usually a "ratcheting effect" of higher debt service payments on system revenue requirements, which creates a need for customer rate increases. Debt financing is a sustainable and preferable financial planning tool in both the short and long term as long as a certain minimum level of cash contributions from system revenues are maintained, and the resulting rate impacts do not adversely affect the affordability criteria and economic development efforts. To mitigate adverse affordability affects, agencies should continuously seek outside financial assistance from state and Federal sources.

Cooperative Funding Alliances

Cooperative funding alliances typically involve Federal funds (i.e., Reclamation Title XVI), state funds (i.e., SWRCB Prop. 13), regional funds (i.e., the MWDSC Local Resources Program), and local agency funding sources.

Funding alliances are simply a result of circumstances, for example, state funds are dependent on availability of funds from voter approved bonds, Federal funds are subject to annual budget approval, and a substantial local share must be secured from rate payers.

A key reason for funding alliances being developed in the past was that some water recycling projects were not cost effective if viewed solely from a local funding and benefits perspective. The interest in developing water recycling projects was often driven at the local level by the need for water supply reliability, and/or sewage treatment or disposal issues. Regional and statewide interests in funding water recycling, meanwhile, tend to encourage economies of scale and larger regional and statewide benefits that result from supplementing local funding.

One additional benefit of funding partnering is the risk reduction that results for the agencies involved. A local agency embarking alone on a water recycling project assumes significant individual financial risk. That same project funded with a number of risk sharing partners spreads the risk. This is especially true for smaller public agencies with a limited revenue base and costly bond funding options.

Certificates of Participation

This form of financing provides long term financing through a lease, installment sale agreement or loan agreement that is not subject to statutory limitations such as elections, or interest rate limits. The parties involved in a COP issue include the public entity (lessee), another public agency such as a redevelopment agency, or parking authority (the lessor) and a trustee. Legal basis for COPs comes from basic laws that allow public entities to enter into lease agreements 1 year at a time, with the understanding that a public entity cannot obligate future governing bodies to honor a lease agreement. This may result in COPs commanding a higher interest rate than revenue bonds. COPs are similar to revenue bonds.

APPENDIX I - CITY OF LOS ANGELES MENU OF FINANCIAL OPTIONS

City of Los Angeles Menu of Financial Options

This is a menu of both capital and O&M financial options. Those shown with an (*) are only used for capital projects.

Bonds

- Pooling of communities' debt for credit enhancement /small community bond bank*
- "Traditional" municipal general obligation bonds*
- Extension of maturity of state revenue bonds to reduce annual debt payments*
- Mini-bonds for stream restoration*
- "Traditional" revenue bonds*
- "Double-barreled" bonds (Revenue bonds backed by the full faith and credit of the jurisdiction) *

Fees

- Special service assessment districts
- Watershed improvement districts
- Stormwater management utility
- In-lieu or impact fees (developer and mitigation fees)
- Effluent trading
- Grant processing for handling fees
- Recreation fees
- Annual user fees for the depletion/degradation of aquifer
- Full-cost pricing for service fees
- One-time septic tank system installation fee
- Environmental "check-off" for all agricultural products
- Environmental Trust Fund
- Create habitat stamps

Taxes

- Sales tax revenues
- Fuel tax revenues
- Ad valorem property taxes

Loans

- State Revolving Funds (SRFs) seeded from the Federal Clean Water program*
- SRFs seeded from the Federal Safe Drinking Water Program*
- SRFs seeded from the state resources*
- Extension of SRFs for private sector*
- Allow individual property owners to receive loans for erosion control without being required to join a designated district*

Private Incentives

- Develop local agricultural area cooperatives on a watershed basis to assist farmers in financing activities
- Conservation service incentive programs by major agricultural companies
- Issue credit cards benefiting private environmental organizations
- Commemorative license plate programs
- Establish wetland mitigation banks at state and local level
- Establish Forest mitigation banks at state and local level
- Tree and wetland planting for carbon sequestration or other air quality credits
- Development Permit (land dedication)
- Land re-adjustment through Joint venture partnerships
- Land Donation or exchange
- Multiple-owners specific plan (open space land dedication financed by open space assessments or impact fees)
- Buffer incentive programs
- Transferable development credits (negotiated)
- Tradable conservation credits
- Transferable development credits (by ordinance)
- Statewide Purchase/ Transferable Development Right Bank (PDR/TDR)
- Public private partnerships for financing wastewater treatment plant upgrades*
- Privatization
  -Operations assistance
  -Contract Operations and Management
  -Design, build, and operate
  -Finance/Design/Build/Operate
  -Own/Operate
- Purchase of environmental easement by the private sector
- Purchase Development rights
- Adopt a creature

Re-direction of Programs

- Create an endowment fund for environmental protection and restoration
- Apply community re-investment act requirements for local investment to environmental projects such as tree planting, stream restoration, stormwater retrofits, etc.
- Use federal or state housing grants to finance public sewer extensions to areas with failing septic systems
- Increase cost-share cap for livestock waste storage systems
- Require nutrient management plans on all state agricultural land preservation easements
- Expand tax deduction for conservation tillage and animal waste handling equipment to include other environmental equipment
- Tax Increment Financing (value capture)
- Special Congressional or state appropriations*

Surcharges

- Surcharge on prepared food and beverages
- Pollution charges
- Lawn and garden fertilizer surcharge

Source: *City of Los Angeles Integrated Resource Plan Technical Memorandum: Draft Los Angeles Bureau of Sanitation Funding Sources* and the *City of Riverside Phase I - Water Recycling Feasibility Study and Citywide Water Recycling Master Plan Update.*

APPENDIX J - EXAMPLE OF SUCCESSFUL FUNDING – INFRASTRUCTURE REHABILITATION CONSTRUCTION PROGRAM 2003

Applicant	Project Name and Description	County	Amount Requested	Project Cost	Recommended Funding	Final Ranking				
						G-1	G-2	G-3	G-4	Total
Crecent City, City of *	Crescent City 2002 Infrastructure Project	Del Norte	$661,300	$661,300	$661,300	**2**	**5**	**8**	**6**	**21**
Lindsay-Strathmore Irrigation District	Water Distribution System Rehabilitation - 2003	Tulare	$698,418	$698,418	$698,418	**4**	**5**	**10**	**6**	**25**
Mariposa Public Utility District	MPUD Water Main Replacement Project	Mariposa	$1,900,000	$1,900,000	$1,900,000	**10**	**5**	**8**	**6**	**29**
Rio Dell, City of	Rio Dell 2002 Infrastructure Rehabilitation Project - This application is an update of one submitted in our last evaluation cycle.	Humboldt	$5,000,000	$5,000,000	$5,000,000	**2**	**5**	**4**	**8**	**19**
Shasta Lake, City of*	Water System Rehabilitation Project - This application is an update of one submitted in the last evaluation cycle.	Shasta	$5,000,000	$5,000,000	$5,000,000	**2**	**5**	**6**	**8**	**21**
Box Springs Mutual	Distribution System Rehabilitation Project. Did not pass B/C threshold. Will be deferred to next evaluation cycle.	Fresno	$5,000,000	$5,000,000	$0	**0**	**0**	**0**	**0**	**0**
Elk County Water District	ECWD Watermain Replacement Project. Application withdrawn - community did not meet demographic eligibility criteria for unemployment.	Mendocino	$895,500	$895,500	$0	**0**	**0**	**0**	**0**	**0**
Gasquet Community Services District	Water Storage Tank Project - Did not pass B/C anlysis. Will be deferred to next evaluation cycle.	Del Norte	$450,506	$450,506	$0	**0**	**0**	**0**	**0**	**0**

Greenfield, City of	Replacement of Failing Water Storage Tank. Failed B/C analysis. Will be deferred to next cycle.	Monterey	$620,220	$620,220	$0	**0**	**0**	**0**	**0**	**0**
Irish Beach Water District	Irish Beach Water Tank Replacement Project. Application withdrawn - community did not meet demographic eligibility criteria for unemployment.	Mendocino	$379,963	$379,963	$0	**0**	**0**	**0**	**0**	**0**
Lynwood, City of	Water Pipeline Replacement Project. Failed B/C analysis. Will be deferred to next evaluation cycle.	Los Angeles	$4,431,787	$4,431,787	$0	**0**	**0**	**0**	**0**	**0**
Mission Springs Water District	MSWD Waterline Replacement Program. Did not pass B/C anlysis. Will be deferred to next evaluation cycle.	Riverside	$4,984,514	$4,984,514	$0	**0**	**0**	**0**	**0**	**0**
Newell County Water District	NCWD Water System Rehabilitation - Did not pass B/C threshold. Will be deferred to next evaluation cycle.	Modoc	$3,363,776	$3,363,776	$0	**0**	**0**	**0**	**0**	**0**
Sanger, City of	Water Distribution System Improvement Project. Application did not pass B/C threshold. Will be deferred to next cycle.	Fresno	$3,736,754	$3,736,754	$0	**0**	**0**	**0**	**0**	**0**
Tract Number One Hundred Eighty Water Company	Distribution System Rehabilitation. Application did not pass B/C threshold. Will be deferred to next cycle.	Los Angeles	$4,755,539	$4,755,539	$0	**0**	**0**	**0**	**0**	**0**
		Total	**$41,878,277**	**$41,878,277**	**$13,259,718**					

*Recommendation contingent on the submittal and acceptance by DWR of the applicants' Urban Water Management Plans

Criteria	Title/Description	Weighting Factor	Maximum Score
G-1	Financial Need - Calculation based on median household income and water rates. Scored 5 (high) to 1 (Low) based on highest water rates compared to median household income	2	10
G-2	Readiness to Proceed - Assessment of applicants ability ot proceed with the project. Scored 5 to 1 depending on number months needed to begin construction.	1	5
G-3	Estimated System Water Losses -Assesment of reduction of distribution system water losses. Scored 5 to 1 depending on percentage of current distribution losses well supported by documentation.	2	10
G-4	Threat to Health, Safety, Welfare & Economy - Assessment of a components threat to the community served by the water system. Scored 5 for a well documented threat to 1 for no failing system component to be replaced.	2	10
Overall Maximum Score			35

	Recommended for Funding in 2002-03 Evaluation Cycle
	Deferred or Withdrawn

APPENDIX K - EXAMPLE OF SUCCESSFUL FUNDING – STATE WATER RESOURCES CONTROL BOARD

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 99 – 055
APPROVAL OF A WATER RECYCLING FACILITIES PLANNING GRANT PROGRAM GRANT TO CITY OF CORONA FOR RECYCLED WATER MASTER PLAN

WHEREAS:

1. The Safe, Clean, Reliable Water Supply Act (1996 Bond Law) established the Water Recycling Subaccount and provided $60 million for low interest loans for the design and construction of water recycling projects and for planning grants;
2. The State Water Resources Control Board established the Water Recycling Facilities Planning Grant Program (FPGP) by adoption of the Water Recycling Funding Guidelines (WRF Guidelines) on April 17, 1997, which implemented provisions of the 1996 Bond Law as well as other bond laws;
3. A grant application was submitted by the City of Corona (City) requesting funding for the City of Corona Recycled Water Master Plan facilities planning study;
4. The Office of Water Recycling staff has reviewed the application, Plan of Study, and other supporting information for the facilities planning study and has determined that the submitted documents comply with the WRF Guidelines; and
5. The WRF Guidelines provide that eligible costs are costs incurred after execution of the grant contract, the City has initiated work on this facilities planning study, and the Office of Water Recycling staff has concluded that it is desirable to allow costs incurred after approval of the grant commitment to be eligible.

THEREFORE BE IT RESOLVED THAT:
The State Water Resources Control Board:

1. Approves an FPGP grant of 50 percent of the eligible costs but not to exceed $75,000 to City of Corona for the City of Corona Recycled Water Master Plan facilities planning study;
2. Approves a condition requiring submittal of the final facilities planning report by December 17, 1999. The Office of Water Recycling may approve up to a 12-month extension for good cause; and
3. Approves funding for costs incurred after June 17, 1999.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 17, 1999.

/s/
Maureen Marché
Administrative Assistant to the Board

APPENDIX L - EXAMPLE OF SUCCESSFUL FUNDING – GROUNDWATER STORAGE CONSTRUCTION GRANTS 2003

Application Log

2003 Funding Cycle

Groundwater Storage Construction Grants

Applicant	Project Title	County	Type	Amount Requested	Total Project Cost
Anderson-Cottonwood Irrigation District	ACID Conjunctive Use Program	Shasta	Grant	$5,670,000	$5,670,000
Arvin-Edison Water Storage District	Arvin-Edison WSD Multi-Benefit Groundwater Storage Expansion Project	Kern	Grant	$3,200,000	$4,000,000
Browns Valley Irrigation District	BVID Conjunctive Use Project in Support of the Sacramento Valley Water Management Program	Yuba	Grant	$350,000	$350,000
Burbank, City of / Burbank Water and Power	Imported Raw Water Service Connection for Conjunctive Use in the San Fernando Basin	Los Angeles	Grant	$1,280,652	$1,600,816
Butte Water District	Butte Water District Conjunctive Management	Butte	Grant	$1,397,149	$1,397,149
Cawelo Water District	Cawelo Water District - Poso Creek Groundwater Storage Project	Kern	Grant	$2,704,867	$3,005,408
East Bay Municipal Utility District	Bayside Groundwater Project	Alameda	Grant	$4,000,000	$21,650,000
Eastern Municipal Water District	Hemet / San Jacinto Recharge and Recovery Program	Riverside	Grant	$5,375,000	$10,757,731
Elsinore Valley Municipal Water District	Back Basin Groundwater Storage Project	Riverside	Grant	$11,890,635	$18,293,284
Fresno Irrigation District	Waldron Banking Facility	Fresno	Grant	$4,615,072	$9,230,144
Glenn-Colusa Irrigation District	GCID Conjunctive Water Management Program	Glenn	Grant	$2,910,000	$2,910,000
Golden Hills Community Services District	Antelope Groundwater Storage and Conjunctive Water Use Project to Provide Reliable Safe Drinking Water to the Golden Hills Community	Kern	Grant	$740,500	$1,481,000

Applicant	Project Title	County	Type	Amount Requested	Total Project Cost
Hi-Desert Water District	Warren Valley Basin Groundwater Storage Project	San Bernardino	Grant	$1,387,000	$2,201,890
Inland Empire Utilities Agency	Chino Basin Conjunctive Use Expansion Program	San Bernardino	Grant	$26,441,636	$81,701,011
Kaweah Delta Water Conservation District	Groundwater Storage Program - Shannon Basin 1A Site	Kings / Tulare	Grant	$312,000	$480,025
Kern Delta Water District	Kern Delta Water District Westside Groundwater Storage Project	Kern	Grant	$5,177,950	$10,355,900
Kings River Conservation District	Consolidated Irrigation District Coordinated Groundwater Storage Project	Fresno	Grant	$1,135,102	$1,418,878
Kings River Conservation District	Alta Irrigation District Coordinated Groundwater Storage Project	Fresno	Grant	$2,737,753	$2,974,651
Los Angeles County Department of Public Works	Big Tujunga – San Fernando Basin Groundwater Storage Enhancement Project	Los Angeles	Grant	$7,100,000	$19,700,000
Lower Tule River Irrigation District	Water Supply Enhancement Program	Kings / Tulare	Grant	$700,000	$1,465,711
Merced Irrigation District	Conjunctive Use Projects	Merced	Grant	$4,294,308	$5,367,885
Metropolitan Water District of Southern California	Orange County Basin Groundwater Conjunctive Use Program	Los Angeles	Grant	$6,800,000	$29,800,000
Mojave Water Agency	Oro Grande Conjunctive Use Project	San Bernardino	Grant	$3,000,000	$6,038,900
Monte Vista Water District	MVWD Aquifer Storage and Recovery Program	San Bernardino	Grant/Loan	$2,175,000	$3,400,000
Natomas Central Mutual Water Company	Natomas 2004 Test-Pumping and Monitoring Program	Sacramento / Sutter	Grant	$770,378	$832,478
Orange County Water District	Miraloma Recharge Project	Orange	Grant	$20,000,000	$44,781,000

Applicant	Project Title	County	Type	Amount Requested	Total Project Cost
Pajaro Valley Water Management Agency	Pajaro Valley Water Management Agency Basin Management Program	Santa Cruz	Grant	$34,250,000	$137,000,000
Pleasant Valley Water District	Pleasant Valley Water Bank	Fresno	Grant	$25,601,596	$25,601,596
Reclamation District No. 108	RD 108 Conjunctive Water Management Program	Colusa / Yolo	Grant	$2,620,000	$2,620,000
Root Creek Water District	Root Creek In-Lieu Groundwater Recharge & Storage Project	Madera	Grant	$2,361,040	$4,722,080
Roseville, City of	City of Roseville Groundwater Storage and Recovery Program	Placer	Grant	$2,254,796	$4,509,592
San Gorgonio Pass Water Agency	South Noble Creek Groundwater Conjunctive Use	Riverside	Grant	$742,000	$1,141,800
Scotts Valley Water District	Mandarino Property (Bergstrom Pit) Artificial Recharge Project	Santa Cruz	Grant	$2,154,000	$3,655,532
Semitropic Water Storage District	Semitropic Improvement District - Stored Water Recover Unit - Phase 1	Kern	Grant	$15,000,000	$35,199,000
Semitropic Water Storage District	Pond-Poso Improvement District: P-1030 Distribution System	Kern	Grant/Loan	$3,321,451	$6,642,902
South Sutter Water District	Conveyance Canal Improvement Plan	Placer / Sutter	Grant	$1,800,000	$2,400,000
Stockton East Water District	Farmington Groundwater Storage Program - Phase 1 : Peters Pipeline Project	San Joaquin	Grant	$7,401,260	$7,401,260
Sutter Extension Water District	Sutter Extension Water District Conjunctive Management Program	Sutter	Grant	$1,534,104	$1,534,104
Three Valleys Municipal Water District	San Dimas Basin Conjunctive Use Project	Los Angeles	Grant	$3,136,100	$3,245,266
Water Replenishment District of Southern California	Whittier Narrows Conservation Pool Project	Los Angeles	Grant	$3,500,000	$7,000,000

Applicant	Project Title	County	Type	Amount Requested	Total Project Cost
West Basin Municipal Water District	Seawater Barrier Water Conservation Project	Los Angeles	Grant	$16,000,000	$33,918,000
Westlands Water District	Westlands Water District Conjunctive Use Water Management Project	Fresno	Grant	$6,126,043	$9,626,043
Yountville, Town of	Yountville Aquifer Storage Recovery Well Construction	Napa	Grant	$1,812,629	$2,014,629

Summary of Applications*

Groundwater Storage Construction Grants	**Total Grant Applications**	43
	Total Grant Amount Requested	$255,780,021
	Total Grant Project Costs	$579,095,665

***For a summary of loan applications, please refer to the Groundwater Recharge Construction Loans Application Log.**

APPENDIX M - EXAMPLE OF SUCCESSFUL FUNDING – GROUNDWATER STORAGE PROGRAM CONSTRUCTION GRANTS 2001-2002

PROPOSITION 13
Groundwater Storage Program Construction Grants
Fiscal Year 2001-02

July 2, 2002

APPLICANT NAME	PROJECT TITLE AND DESCRIPTION	COUNTY	AMOUNT REQUESTED	GRANT AWARD	TOTAL PROJECT COST
Kern Water Bank Authority	The **Kern Water Bank River Area Recharge and Recovery Project** consists of constructing 16 additional recovery wells and a conveyance pipeline to route water to the California Aqueduct. It also includes the construction of a lift station to convey water for recharge purposes. The purpose of the project is to increase project yield and help sustain project recovery capabilities as recovery conditions become more adverse, such as in the event of an extended drought.	Kern	$3,375,000	$3,375,000	$6,750,000
United Water Conservation District	The **Saticoy Groundwater Storage Management Project** will prevent further seawater intrusion at the coastline and prevent saline intrusion in inland areas. The proposed project is to construct a well field to more effectively manage groundwater storage in the Oxnard Forebay basin. These wells would be used to transfer stored water in the Forebay basin to users in the Oxnard Plain and Pleasant Valley basins. Additional storage space for recharge of winter runoff would be available.	Ventura	$1,423,595	$1,423,595	$1,825,740
Clovis, City of	The **Expansion of the Artificial Recharge Basin at the Marion and Alluvial Avenue Project** includes construction of four groundwater recharge basins on 8 parcels totaling approximately 40 acres. This project would recharge 3,000 acre-feet of water annually.	Fresno	$2,031,245	$2,031,245	$4,273,745
Kern County Water Agency	The **Kern County Groundwater Storage and Water Conveyance Infrastructure Improvement Program** includes several improvements that will increase the ability to store highly variable water supplies and convey them to key groundwater storage facilities. Components of the program include constructing an 800 cfs tie between the Cross Valley Canal (CVC) and the Friant-Kern Canal, installing pump stations on the Friant-Kern Canal to convey from the CVC to northern Kern County, and raising the lining of the CVC to reliably convey 500 cfs of water.	Kern	$32,000,000	$22,000,000	$44,023,100

PROPOSITION 13
Groundwater Storage Program Construction Grants
Fiscal Year 2001-02

July 2, 2002

APPLICANT NAME	PROJECT TITLE AND DESCRIPTION	COUNTY	AMOUNT REQUESTED	GRANT AWARD	TOTAL PROJECT COST
Regional Water Authority	The **American River Basin Regional Conjunctive Use Program** would include an expansion of surface water treatment plant capacity, water transmission system improvements (including pipelines, a pump station, and an aboveground water storage tank for flow equalization), and groundwater extraction wells. These facilities will facilitate a groundwater banking and surface water exchange program integrating operation of Folsom Lake and the groundwater basin.	Sacramento / Placer	$21,671,697.50	$21,671,697	$43,343,395
Orange County Water District	The **Groundwater Replenishment System** is a conjunctive use project that will augment existing groundwater supplies through treatment and recharge of reclaimed water. Two components are proposed for funding: (1) Advanced Water Treatment facilities and pumping stations; and (2) A pipeline connection from the treatment facilities to existing recharge basins.	Orange	$50,000,000	$30,000,000	$352,000,000
Buena Vista Water Storage District	The **Buena Vista Groundwater Supply Program** consists of the construction of three new extraction wells and associated conveyance pipelines that could deliver up to 5,000 acre-feet of additional banked groundwater per year.	Kern	$500,000	$500,000	$1,000,000
Goleta Water District	The **Drought-Buffer Storage Project Aquifer Storage and Recovery, Phase I Project** would take spill water from Lake Cachuma, available every 3 to 5 years, and use it to recharge the groundwater basin. The grant would fund modifications to existing wells to allow injection.	Santa Barbara	$1,802,019	$1,802,019	$3,604,039
Yuba County Water Agency	The **Yuba/Wheatland In-Lieu Groundwater Recharge and Storage Project** would entail construction of a canal to deliver surface water in place of groundwater pumping. Also included is the construction of two pumping plants. This phase of the Project will provide for delivery of surface water to irrigate approximately 7,750 acres.	Yuba	$4,095,000	$3,150,000	$6,300,000
Los Angeles County Department of Public Works	The **San Gabriel River Valley Boulevard Rubber Dams No. 2 and No. 3 Project** involves constructing two inflatable dams on the San Gabriel River to capture local runoff for in-stream recharge and provide storage for downstream spreading. The combined storage capacity for both facilities will be 552 acre-feet. The expected annual yield for this project is 3,600 acre-feet.	Los Angeles	$2,150,000	$2,150,000	$6,503,000

PROPOSITION 13
Groundwater Storage Program Construction Grants
Fiscal Year 2001-02

July 2, 2002

APPLICANT NAME	PROJECT TITLE AND DESCRIPTION	COUNTY	AMOUNT REQUESTED	GRANT AWARD	TOTAL PROJECT COST
Los Angeles (City of) Department of Water and Power	The **North Hollywood Well Field Restoration Project – Phase 1** consists of the construction of four groundwater production wells, each with a capacity of 8.5 to 10 cubic feet per second. The additional groundwater production capacity will consolidate the City's San Fernando Basin groundwater entitlement during the summer months. It would also produce the City's stored water credit in the basin to supplement its annual entitlement during drought years and emergencies.	Los Angeles	$2,000,000	$2,000,000	$4,029,600
Cawelo Water District	The **Groundwater Storage and Conjunctive Management of Surface Water and Groundwater Project** is composed of three components that would provide facilities for conjunctive use of available surface water and groundwater. Water would be diverted or imported through the District's existing distribution system for delivery to the proposed reservoir and basins.	Kern	$6,430,000	$1,430,000	$13,856,470
North Kern Water Storage District	The **North Kern Groundwater Storage Project** will provide water banking services to neighboring water agencies and maintenance of the groundwater resource underlying North Kern. New facilities would include a turnout from the Friant-Kern Canal and four deep wells with the capability of discharging into the Friant-Kern Canal. All other facilities, including conveyance and spreading facilities, are existing.	Kern	$1,912,487	$1,131,000	$2,262,487
	FY 2001-02 TOTAL		**$129,391,044**	**$92,664,556**	**$489,771,576**

APPENDIX N - EXAMPLE OF SUCCESSFUL FUNDING – PROPOSITION 13 GROUNDWATER RECHARGE PROGRAM CONSTRUCTION LOANS 2001-2002

PROPOSITION 13
Groundwater Recharge Program Construction Loans
Fiscal Year 2001-02

July 2, 2002

APPLICANT NAME	PROJECT TITLE AND DESCRIPTION	COUNTY	AMOUNT REQUESTED	LOAN AWARD	TOTAL PROJECT COST
Buttonwillow Improvement District, Semitropic Water Storage District	The B-369 Distribution System would enhance existing recharge, storage and recovery capability with the construction of an additional 2,560 acres of surface water delivery service area for use in place of pumping groundwater. Up to 8,960 acre-feet of water may be recharged/banked annually in this manner.	Kern	$5,000,000	$5,000,000	$5,400,417
Water Replenishment District of Southern California	The **Alamitos Physical Barrier and Groundwater Conservation Project** consists of the following components: a Deep Soil Mixed wall consisting of 11,000 feet of impermeable barrier (100 feet deep); a rubber dam in the Cerritos Channel to stop seawater infiltration from the channel; use of the Existing Alamitos Seawater Barrier system to inject water for groundwater storage; and use of existing L.A. County water supply line.	Los Angeles	$5,000,000	$5,000,000 (1)	$11,155,000
FY 2001-02 TOTAL			**$10,000,000**	**$10,000,000 (2)**	**$16,555,417**

(1) This project will be funded beginning January 1, 2003, contingent upon the continued availablity of funds and upon the removal of debt constraints placed on WRD through Water Code Section 60233.5 (c) and (g). Funding is also contingent upon the absence of any extension of these restrictions in the current legislative session.

(2) Total funding recommendation at this time is $5,000,000. If the debt restriction referenced in (1) above is lifted in January 1,2003, the total recommended funding would be $10,000,000.

APPENDIX O - EXAMPLE OF SUCCESSFUL FUNDING – PROPOSITION 13 LIST OF APPLICANTS

Proposition 13 – 2003 List of Applicants

2003 Grant Applications

Application Number	Applicant	Project Title
2003007	Calaveras County Water District	West Point Water Conservation Capital Outlay Grant
2003019	Central Basin Municipal Water District	Enhanced Rebates CII – Zero Water Consumption Urinals
2003020	Central Basin Municipal Water District West Basin Municipal Water District	ET Controller Installation Program
2003041	Compton Municipal Water Department	Compton CII WUE Project
2003044	Concord, City of	Rain Master ET Controller Irrigation System Instrumentation
2003002	Contra Costa Water District	Targeted Multifamily Toilet Replacement Program
2003036	Dublin San Ramon Services District	Residential Meter Upgrade
2003037	Dublin San Ramon Services District	Parks RFTA Water Distribution System Program
2003009	East Bay Municipal Utility District	ET Controller Installation Project
2003010	East Bay Municipal Utility District	Regional Resource Efficient Clothes Washer Rebate
2003011	East Bay Municipal Utility District	X-ray Processor Recycling Capital Outlay Project
2003038	El Dorado Irrigation District	EID Main Canal Lining Project
2003039	El Dorado Irrigation District	CII Zero Consumption Urinal/Prerinse Nozzle Replace
2003040	El Dorado Irrigation District	Sly Park Recreation Area Water Line Replacement
2003022	Elsinore Valley Municipal Water District	Landscape Water Audit Program
2003027	Hemet, City of	High Efficiency Clothes Washer Rebate Program
2003028	Hollydale Mutual Water Company	Urban Water Conservation
2003045	Inland Empire Utilities Agency	Water Conservation Program – California Institute for Men and Associated Facilities
2003023	Long Beach Water Department	CII-School Zero Consumption Urinals Direct Install
2003004	Los Altos, City of	ET Controller Installation in 6 City Parks
2003029	Los Osos Community Services District	LOCSD Water Conservation Toilet Retrofit Program
2003015	Metropolitan Water District of Southern California	Residential High Efficiency Clothes Washer Rebate
2003016	Metropolitan Water District of Southern California	Industrial Process Capital Improvement
2003017	Metropolitan Water District of Southern California	ET Controller Installation Project
2003018	Metropolitan Water District of Southern California	Regional Pool Cover Rebate Project
2003008	Montara Sanitary District	Water Conservation Program
2003030	North of the River Municipal Water District	Multifamily Metering and Conservation Program
2003034	Paradise Irrigation District	Leak Detection and Repair Program
2003035	Paradise Irrigation District	Main Replacement Project
2003013	Placentia, City of	Tri-City Park Irrigation System Upgrade
2003049	Placer County Water Agency	Dewitt Center Water Use Efficiency Project
2003050	Placer County Water Agency	Water Line Replacement Project

2003 Grant Applications

Application Number	Applicant	Project Title
2003051	Placer County Water Agency	Swimming Pool Cover Incentive Program
2003052	Placer County Water Agency	Auburn Bowman System Audit Leak Detection Repair
2003053	Placer County Water Agency	Canal Lining
2003024	Pomona, City of	Ultra Low-Flow Toilet Distribution Program
2003006	Rancho California Water District	Commercial Landscape Irrigation Audit
2003046	Regional Water Authority	ET Controllers-Large Landscape Sites Installation Program
2003047	Regional Water Authority	Large Landscape Irrigation System Incentive Program
2003048	Regional Water Authority	Rain Sensor Device Installation Program
2003026	Rialto, City of	Rialto Leak Detection and Water Conservation Program
2003005	San Diego County Water Authority	Residential Hi-Efficiency Clothes Washer Voucher Incentive Program
2003012	San Diego County Water Authority	Commercial Landscape Incentive Program
2003021	San Diego County Water Authority	Hospital X-ray Film Processor Recirculating System
2003058	San Francisco Public Utilities Commission	Commercial Clothes Washer Rebate
2003059	San Francisco Public Utilities Commission	Rebates for Water Cooled Ice Machines
2003060	San Francisco Public Utilities Commission	Rebates for Commercial Ultra Low Flush Toilets
2003001	San Mateo, City of	Irrigation Conservation
2003003	Santa Barbara County Water Agency	Santa Barbara County CII Rebate Program
2003042	Santa Clara Valley Water District	Innovative High-Efficiency Commercial Equipment Retrofits
2003043	Santa Clara Valley Water District	Targeted Irrigation System Hardware Upgrades
2003025	Santa Monica, City of	Comprehensive Medical Facility Turn-Key Program
2003031	South Tahoe Public Utility District	Landscaping Incentives Project
2003055	Sutter, County of	Robbins Water Meter Retrofit Project
2003054	Tulare County Water Works District	Alpaugh Water Meter Retrofit Program
2003014	Victor Valley Water District	ET Irrigation Controller Project
2003056	West Covina, City of	Water Conservation Field Improvements at Parks
2003057	West San Bernardino County Water District	Water Loss Analysis and System Rehabilitation
2003032	Yucaipa Valley Water District	Irrigation System Efficiency Improvements
2003033	Yucaipa Valley Water District	High Efficiency Plumbing Fixture Program

APPENDIX P - PROPOSITION 40

Proposition 40

Source: Yes on Proposition 40 Website

BILL NUMBER: AB 1602 ENROLLED

BILL TEXT
Passed the Assembly September 15, 2001
Passed the Senate September 14, 2001
Amended in Senate September 14, 2001
Amended in Senate July 20, 2001
Amended in Senate June 13, 2001
Amended in Assembly May 15, 2001
Amended in Assembly April 23, 2001
Amended in Assembly April 16, 2001

INTRODUCED BY: Assembly Member Keeley
(Principal co-author: Assembly Member Hertzberg)
(Principal co-authors: Senators Chesbro and Burton)
(Co-authors: Assembly Members Chan, Chu, Firebaugh, Frommer, Havice, Jackson, Kelley, Koretz, Liu, Pavley, Wayne, and Wesson)
(Co-authors: Senators Alarcon, Alpert, McPherson, Murray, Ortiz, and Vasconcellos)

FEBRUARY 23, 2001

An act to add Chapter 1.696 (commencing with Section 5096.600) to Division 5 of the Public Resources Code, relating to financing a program for the acquisition, development, restoration, protection, rehabilitation, stabilization, reconstruction, preservation, and interpretation of park, coastal, agricultural land, air, and historical resources in the state, by providing the funds necessary therefor through an election for, and the issuance and sale of, bonds of the State of California, and by providing for the handling and disposition of those funds, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 1602, Keeley. California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002. Under existing law, programs have been established pursuant to bond acts for, among other things, the development and enhancement of state and local parks and recreational facilities. This bill would enact the California Clean Water, Clean Air, and Safe Neighborhood Parks, and Coastal Protection Act of 2002, which, if adopted, would authorize, for the purpose of financing a program for the acquisition, development, restoration, protection, rehabilitation, stabilization, reconstruction, preservation, and interpretation of park, coastal, agricultural land, air, and historical resources, as specified, the issuance, pursuant to the State General Obligation Bond Law, of bonds in the amount of $2,600,000,000. The bill would declare that it is to take effect immediately as an urgency statute.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Chapter 1.696 (commencing with Section 5096.600) is added to Division 5 of the Public Resources Code, to read:

CHAPTER 1.696. THE CALIFORNIA CLEAN WATER, CLEAN AIR, SAFE NEIGHBORHOOD PARKS, AND COASTAL PROTECTION ACT OF 2002

Article 1. General Provisions

5096.600. This chapter shall be known, and may be cited, as the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002.

5096.601. The Legislature finds and declares all of the following:
(a) To maintain a high quality of life for California's growing population requires a continuing investment in parks, recreation facilities, and in the protection of the state's natural and historical resources.
(b) Clean air, clean water, clean beaches, and healthy natural ecosystems that can support both human communities and the state's native fish and wildlife are all part of the legacy of California. Each generation has an obligation to be good stewards of these resources in order to pass them on to their children.
(c) California's historical legacy also requires active protection, restoration, and interpretation to preserve and pass on an understanding and appreciation of the diverse cultural influences and extraordinary human achievements that have contributed to the unique development of California.

5096.605. As used in this chapter, the following terms have the following meanings:
(a) "Acquisition" means obtaining the fee title or a lesser interest in real property, including specifically, a conservation easement or development rights.
(b) "Department" means the Department of Parks and Recreation.
(c) "Development" includes, but is not limited to, improvement, rehabilitation, restoration, enhancement, preservation, protection, and interpretation.
(d) "Director" means the Director of the Department of Parks and Recreation.
(e) "District" means any regional park district, regional park and open-space district, or regional open-space district formed pursuant to Article 3 (commencing with Section 5500) of Chapter 3, any recreation and park district formed pursuant to Chapter 4 (commencing with Section 5780), or an authority formed pursuant to Division 26 (commencing with Section 35100). With respect to any community or unincorporated region that is not included within a district, and in which no city or county provides parks or recreational areas or facilities, "district" also means any other district that is authorized by statute to operate and manage parks or recreational areas or facilities, employs a full-time park and recreation director, offers year-round park and recreation services on lands and facilities owned by the district, and allocates a substantial portion of its annual operating budget to parks or recreation areas or facilities.
(f) "Fund" means the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Fund created pursuant to Section 5096.610.
(g) "Historical resource" includes, but is not limited to, any building, structure, site, area, place, artifact, or collection of artifacts that is historically or archaeologically significant in the cultural annals of California.
(h) "Local conservation corps" means a program operated by a public agency or nonprofit organization that is certified pursuant to Section 14406.
(I) "Nonprofit organization" means any nonprofit public benefit corporation formed pursuant to

the Nonprofit Corporation Law (commencing with Section 5000 of the Corporations Code), qualified to do business in California, and qualified under Section 501(c)(3) of the Internal Revenue Code.
(j) "Preservation" means identification, evaluation, recordation, documentation, interpretation, protection, rehabilitation, restoration, stabilization, development, and reconstruction, or any combination of those activities.
(k) "Secretary" means the Secretary of the Resources Agency. 5096.606. Lands or interests in land acquired with funds allocated pursuant to this chapter shall be acquired from a willing seller.

Article 2. The California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002

5096.610. The proceeds of bonds issued and sold pursuant to this chapter shall be deposited in the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Fund, which is hereby created. Except as provided in subdivision (a) of Section *5096.650.* the money in the fund shall be available for appropriation by the Legislature, in the manner set forth in this chapter, for acquisition and development projects, in accordance with the following schedule:

4. The sum of two hundred twenty-five million dollars ($225,000,000) for acquisition and development of the state park system.
   (b) The sum of eight hundred thirty-two million five hundred thousand dollars ($832,500,000) for local assistance programs for the acquisition and development of neighborhood, community, and regional parks and recreation areas.
   (c) The sum of one billion two hundred seventy-five million dollars ($1,275,000,000) for land, air, and water conservation programs, including acquisition for those purposes.
   (d) The sum of two hundred sixty-seven million five hundred thousand dollars ($267,500,000) for the acquisition, restoration, preservation, and interpretation of California's historical and cultural resources.

Article 3. State Parks

5096.615. The two hundred twenty-five million dollars ($225,000,000) allocated pursuant to subdivision (a) of Section 5096.610 shall be available for appropriation by the Legislature to the department for the acquisition and development of the state park system. It is the intent of the Legislature that first priority for funding shall be for development projects to complete and expand visitor facilities and for restoration projects. Not more than 50 percent of the funds provided by this section may be used for acquisition.

Article 4. Local Assistance Programs

5096.620. The eight hundred thirty-two million five hundred thousand dollars ($832,500,000) allocated pursuant to subdivision (b) of Section 5096.610 shall be available for appropriation by the Legislature for local assistance programs, in accordance with the following schedule:
(a) The sum of three hundred fifty million dollars ($350,000,000) to the department for grants, in accordance with Section 5096.621, and on the basis of population, for the acquisition and development of neighborhood, community, and regional parks and recreation lands and facilities in urban and rural areas.
(b) The sum of two hundred million dollars ($200,000,000) to the department for grants, in accordance with the Roberti-Z'berg-Harris Urban Open-Space and Recreation Program Act (Chapter 3.2 [commencing with Section 5620]).

(c) The sum of twenty-two million five hundred thousand dollars ($22,500,000) on a per capita basis in accordance with subdivision (g) of Section 5096.621.
(d) The sum of two hundred sixty million dollars ($260,000,000) to the department for grants for urban and special need park programs in accordance with

Section 5096.625.
5096.621. (a) Sixty percent of the total funds available for grants pursuant to subdivision (a) of Section 5096.620 shall be allocated to cities and to districts other than a regional park district, regional park and open-space district, or regional open-space district. Each city's and district's allocation shall be in the same ratio as the city's or district's population is to the combined total of the state's population that is included in incorporated areas and unincorporated areas within the district, except that each city or district shall be entitled to a minimum allocation of two hundred twenty thousand dollars ($220,000). In any instance in which the boundary of a city overlaps the boundary of such a district, the population in the area of overlapping jurisdiction shall be attributed to each jurisdiction in proportion to the extent to which each operate and manage parks and recreational areas and facilities for that population. In any instance in which the boundary of a city overlaps the boundary of such a district, and in the area of overlap the city does not operate and manage parks and recreational areas and facilities, all grant funds shall be allocated to the district.
(b) Each city and each district subject to subdivision (a) whose boundaries overlap shall develop a specific plan for allocating the grant funds in accordance with the formula specified in subdivision (a). If, by April 1, 2003, the plan has not been agreed to by the city and district and submitted to the department, the director shall determine the allocation of the grant funds among the affected jurisdictions.
(c) Forty percent of the total funds available for grants pursuant to subdivision (a) of Section 5096.620 shall be allocated to counties and regional park districts, regional park and open-space districts, or regional open-space districts formed pursuant to Article 3 (commencing with Section 5500) of Chapter 3.
(d) Each county's allocation under subdivision (a) shall be in the same ratio as the county's population, except that each county shall be entitled to a minimum allocation of one million two hundred thousand dollars ($1,200,000).
(e) In any county that embraces all or part of the territory of a regional park district, regional park and open-space district, or regional open-space district, whose board of directors is not the county board of supervisors, the amount allocated to the county shall be apportioned between that district and the county in proportion to the population of the county that is included within the territory of the district and the population of the county that is outside the territory of the district.
(f) For the purpose of making the calculations required by this section, population shall be determined by the department, in cooperation with the Department of Finance, on the basis of the most recent verifiable census data and other verifiable population data that the department may require to be furnished by the applicant city, county, or district.
(g) Of the funds appropriated in subdivision (c) of Section 5096.620, twelve million five hundred thousand dollars ($12,500,000) shall be allocated to a city with an urban population greater than three million five hundred thousand in a county of the first class, and ten million dollars ($10,000,000) shall be allocated to a county of the first class.
(h) The Legislature finds and declares that it intends all recipients of funds pursuant to subdivision (a) of Section 5096.620 to use those funds to supplement local revenues, in existence on the effective date of the act adding this chapter during the 2001-02 Regular Session, that are being used for parks or other projects eligible for funds under this chapter. To receive any allocation pursuant to subdivision (a) of Section 5096.620, the recipient may not reduce the amount of funding otherwise available to be spent on parks or other projects eligible

for funds under this chapter in their jurisdiction. One-time allocations that have been expended for parks or other projects, but which are not available on an ongoing basis, may not be considered when calculating a recipient's annual expenditures. For purposes of this subdivision, the Controller may request fiscal data from recipients for the proceeding three fiscal years. Each recipient shall furnish the data to the Controller not later than 120 days after receiving the request from the Controller.

5096.624. (a) The director shall prepare and adopt criteria and procedures for evaluating applications for grants allocated pursuant to subdivisions (a) to (c), inclusive, of Section 5096.620. Individual applications for funds shall be submitted to the department for approval as to their conformity with the requirements of this chapter. The application shall be accompanied by certification that the project for which the grant is requested is consistent with the park and recreation element of the applicable city or county general plan or the district park and recreation plan, as the case may be, and will satisfy a high priority need.
(b) To utilize available grant funds as effectively as possible, overlapping or adjoining jurisdictions and applicants with similar objectives are encouraged to combine projects and submit a joint application. An applicant may allocate all or a portion of its per capita share for a regional or state project.
(c) The director shall annually forward a statement of the total amount to be appropriated in each fiscal year for projects approved for grants pursuant to this article to the Director of Finance for inclusion in the Budget Bill. A list of eligible jurisdictions and the amount of grant funds to be allocated to each shall also be made available by the department.
(d) Funds appropriated pursuant to this article shall be encumbered by the recipient within three years from the date the appropriation is effective. Regardless of the date of encumbrance of the granted funds, the recipient is expected to complete all funded projects within eight years of the effective date of the appropriation.

5096.625. The funds provided in subdivision (d) of Section 5096.620 shall be available as grants for public agencies and nonprofit organizations for the acquisition and development of new parks, botanical gardens, nature centers, and other community facilities in park poor communities. The funds may be expended pursuant to Section 5004.5, and Chapter 1.55 (commencing with Section 5095), if Senate Bill 359 of the 2001-02 Regular Session of the Legislature is enacted on or before January 1, 2003, and Chapter 3.3 (commencing with Section 5640), if Assembly Bill 1481 of the 2001-02 Regular Session of the Legislature is enacted on or before January 1, 2003, or pursuant to any other applicable statutory authorization. Not less than fifty million dollars ($50,000,000) of the funds provided in subdivision (d) of Section 5096.620 shall be expended for competitive grants consistent with the requirements of subdivision (b) of Section 5096.348. Ten million dollars ($10,000,000) of the funds provided in subdivision (d) of Section 5096.620 shall be available for development of Central Park in the City of Rancho Cucamonga. Five million dollars ($5,000,000) of the funds provided in subdivision (d) of Section 5096.620 shall be available for allocation to the City of Los Angeles for park and recreation or community facilities at or adjacent to the Hansen Dam recreation area. Five million dollars ($5,000,000) of the funds provided in subdivision (d) of Section 5096.620 shall be available for allocation to the City of Los Angeles for the Sepulveda Basin recreational parkland.

5096.629. In making grants of funds allocated pursuant to subdivision (d) of Section 5096.620, priority shall be assigned to projects that include a commitment for a matching contribution. Contributions may be in the form of money from a nonstate source; gifts of real property, equipment, and consumable supplies; volunteer services; free or reduced-cost use.

5096.633. Any grant funds appropriated pursuant to this article that have not been expended by the grant recipient prior to July 1, 2011, shall revert to the fund and be available for appropriation by the Legislature for one or more of the local assistance programs specified in Section 5096.620 that the Legislature determines to be the highest priority statewide.

Article 5. Land, Air, and Water Conservation

5096.650. The one billion two hundred seventy-five million dollars ($1,275,000,000) allocated pursuant to subdivision © of Section 5096.610 shall be available for the acquisition and development of land, air, and water resources in accordance with the following schedule:
(a) Notwithstanding Section 13340 of the Government Code, the sum of three hundred million dollars ($300,000,000) is continuously appropriated to the Wildlife Conservation Board for the acquisition, development, rehabilitation, restoration, and protection of habitat that promotes the recovery of threatened and endangered species, that provides corridors linking separate habitat areas to prevent habitat fragmentation, and that protects significant natural landscapes and ecosystems such as old growth redwoods and oak woodlands and other significant habitat areas; and for grants and related state administrative costs pursuant to the Wildlife Conservation Law of 1947 (Chapter 4 (commencing with Section 1300) of Division 2 of the Fish and Game Code). Funds scheduled in this subdivision may be used to prepare management plans for properties acquired in fee by the Wildlife Conservation Board.
(b) The sum of four hundred forty-five million dollars ($445,000,000) to the conservancies in accordance with the particular provisions of the statute creating each conservancy for the acquisition, development, rehabilitation, restoration, and protection of land and water resources; for grants and state administrative costs; and in accordance with the following schedule:

4. To the State Coastal Conservancy: $200,000,000
(2) To the California Tahoe Conservancy: $ 40,000,000
(3) To the Santa Monica Mountains Conservancy: $ 40,000,000
(4) To the Coachella Valley Mountains Conservancy: $ 20,000,000
(5) To the San Joaquin River Conservancy: $ 25,000,000
(6) To the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy: $ 40,000,000
(7) To the Baldwin Hills Conservancy: $ 40,000,000
(8) To the San Francisco Bay Area Conservancy Program: $ 40,000,000

© The sum of three hundred seventy-five million dollars ($375,000,000) shall be available for grants to public agencies and nonprofit organizations for acquisition, development, restoration, and associated planning, permitting, and administrative costs for the protection and restoration of water resources in accordance with the following schedule:
(1) The sum of seventy-five million dollars ($75,000,000) to the secretary for the acquisition and development of river parkways and for protecting urban streams. The secretary shall make funds available in accordance with Sections 7048 and 78682.2 of the Water Code, and pursuant to any other applicable statutory authorization. Not less than five million dollars ($5,000,000) shall be available for grants for the urban streams program, pursuant to Section 7048 of the Water Code.
(2) The sum of three hundred million dollars ($300,000,000) shall be available for the purposes of clean beaches, watershed protection, and water quality projects to protect beaches, coastal waters, rivers, lakes, and streams from contaminants, pollution, and other environmental threats.
(d) The sum of fifty million dollars ($50,000,000) to the State Air Resources Board for grants to air districts pursuant to Chapter 9 (commencing with Section 44275) of Part 5 of Division 26 of the Health and Safety Code for projects that reduce air pollution that affects air quality in state and local park and recreation areas. Eligible projects shall meet the requirements of Section 16727 of the Government Code and shall be consistent with Section 43023.5 of the Health and

Safety Code, if Assembly Bill 1390 of the 2001-02 Regular Session of the Legislature enacted on or before January 1, 2003. Each district shall be eligible for grants of not less than two hundred thousand dollars ($200,000). Not more than 5 percent of the funds allocated to a district may be used to cover the costs associated with implementing the grant program.
(e) The sum of twenty million dollars ($20,000,000) to the California Conservation Corps for the acquisition, development, restoration, and rehabilitation of land and water resources, and for grants and state administrative costs in accordance with the following schedule:
(1) The sum of five million dollars ($5,000,000) shall be available for resource conservation activities.
(2) The sum of fifteen million dollars ($15,000,000) shall be available for grants to local conservation corps for acquisition and development of facilities to support local conservation corps programs.
(f) The sum of seventy-five million dollars ($75,000,000) shall be available for grants for the preservation of agricultural lands and grazing lands, including oak woodlands and grasslands.
(g) The sum of ten million dollars ($10,000,000) to the Department of Forestry and Fire Protection for grants for urban forestry programs pursuant to the California Urban Forestry Act of 1978 (Chapter 2 (commencing with Section 4799.06) of Part 2.5 of Division 1).
5096.651. In making grants pursuant to subdivisions (a) and (b) of Section 5096.650, priority shall be given to projects that include a commitment for a matching contribution. Contributions may be in the form of money, property, or services.

Article 5. Historical and Cultural Resources Preservation

5096.652. (a) The two hundred sixty-seven million five hundred
thousand dollars ($267,500,000) allocated pursuant to subdivision (d) of Section 5096.610 shall be available for appropriation by the Legislature for the acquisition, development, preservation, and interpretation of buildings, structures, sites, places, and artifacts that preserve and demonstrate culturally significant aspects of California's history and for grants for these purposes. Eligible projects include, but are not limited to, those which preserve and demonstrate the following:
(1) Culturally significant aspects of life during various periods of California history including architecture, economic activities, art, recreation, and transportation.
(2) Unique identifiable ethnic and other communities that have added significant elements to California's culture.
(3) California industrial, commercial, and military history including the industries, technologies, and commercial activities that have characterized California's economic expansion and California's contribution to national defense.
(4) Important paleontologic, oceanographic, and geologic sites and specimens.
(b) Thirty-five million dollars ($35,000,000) of the funds available pursuant to this section shall be allocated to a city for the development, rehabilitation, preservation, restoration, and interpretation of resources at a city park of historical and cultural significance that is over 1,000 acres and that serves an urban area with a population that is greater than 750,000 in northern California.
(c) Two million five hundred thousand dollars ($2,500,000) of the funds available pursuant to this section shall be allocated to the County of Los Angeles for the El Pueblo Cultural and Performing Arts Center.

Article 6. Fiscal Provisions

5096.665. Bonds in the total amount of two billion six hundred million dollars ($2,600,000,000), not including the amount of any refunding bonds issued in accordance with Section 5096.677, or so much thereof as is necessary, may be issued and sold to provide a fund to be used for carrying out the purposes set forth in Section 5096.610 and to be used to reimburse the General Obligation Bond Expense Revolving Fund pursuant to Section 16724.5 of the Government Code. The bonds, when sold, shall be and constitute a valid and binding obligation of the State of California, and the full faith and credit of the State of California is hereby pledged for the punctual payment of the principal of, and interest on, the bonds as the principal and interest become due and payable. Pursuant to this section, the Treasurer shall sell the bonds authorized by the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act Finance Committee created pursuant to subdivision (a) of Section 5096.667 at any different times that are necessary to service expenditures appropriated pursuant to this chapter.

5096.666. The bonds authorized by this chapter shall be prepared, executed, issued, sold, paid, and redeemed as provided in the State General Obligation Bond Law (Chapter 4 (commencing with Section 16720) of Part 3 of Division 4 of Title 2 of the Government Code), and all of the provisions of that law apply to the bonds and to this chapter and are hereby incorporated in this chapter by this reference as though set forth in full in this chapter.

5096.667. (a) Solely for the purpose of authorizing the issuance and sale, pursuant to the State General Obligation Bond Law, of the bonds authorized by this chapter, the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act Finance Committee is hereby created. For purposes of this chapter, the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act Finance Committee is "the committee" as that term is used in the State General Obligation Bond Law. The committee consists of the Controller, the Director of Finance, and the Treasurer, or their designated representatives. The Treasurer shall serve as chairperson of the committee. A majority of the committee may act for the committee.
(b) For purposes of the State General Obligation Bond Law, the Secretary of the Resources Agency is designated the "board."

5096.668. The committee shall determine whether or not it is necessary or desirable to issue bonds authorized pursuant to this chapter to carry out Section 5096.610 and, if so, the amount of bonds to be issued and sold. Successive issues of bonds may be authorized and sold to carry out those actions progressively, and it is not necessary that all of the bonds authorized to be issued be sold at any one time.

5096.670. There shall be collected each year and in the same manner and at the same time as other state revenue is collected, in addition to the ordinary revenues of the state, a sum in an amount required to pay the principal of, and interest on, the bonds maturing each year. It is the duty of all officers charged by law with any duty in regard to the collection of the revenue to do and perform each and every act that is necessary to collect that additional sum.

5096.671. Notwithstanding Section 13340 of the Government Code, there is hereby appropriated from the General Fund in the State Treasury, for the purposes of this chapter, an amount that will equal the total of the following:
(a) The sum annually necessary to pay the principal of, and interest on, bonds issued and sold pursuant to this chapter, as the principal and interest become due and payable.

(b) The sum necessary to carry out Section 5096.672, appropriated without regard to fiscal years.

5096.672. For purposes of carrying out this chapter, the Director of Finance may authorize the withdrawal from the General Fund of an amount or amounts not to exceed the amount of the unsold bonds that have been authorized to be sold for the purpose of carrying out this chapter. Any amount withdrawn shall be deposited in the fund. Any money made available under this section shall be returned to the General Fund from proceeds received from the sale of bonds for the purpose of carrying out this chapter.

5096.673. Pursuant to Chapter 4 (commencing with Section 16720) of Part 3 of Division 4 of Title 2 of the Government Code, the cost of bond issuance shall be paid out of the bond proceeds. These costs shall be shared proportionally by each program funded through this bond act.

5096.674. Actual costs incurred in connection with administering programs authorized under the categories specified in Section 5096.610 shall be paid from the funds authorized by this act.

5096.675. The secretary may request the Pooled Money Investment Board to make a loan from the Pooled Money Investment Account, including other authorized forms of interim financing that include, but are not limited to, commercial paper, in accordance with Section 16312 of the Government Code, for purposes of carrying out this chapter. The amount of the request shall not exceed the amount of the unsold bonds that the committee, by resolution, has authorized to be sold for the purpose of carrying out this chapter. The secretary shall execute any documents required by the Pooled Money Investment Board to obtain and repay the loan. Any amounts loaned shall be deposited in the fund to be allocated by the board in accordance with this chapter.

5096.676. All money deposited in the fund that is derived from premium and accrued interest on bonds sold shall be reserved in the fund and shall be available for transfer to the General Fund as a credit to expenditures for bond interest.

5096.677. The bonds may be refunded in accordance with Article 6 (commencing with Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of the Government Code, which is a part of the State General Obligation Bond Law. Approval by the voters of the state of the issuance of the bonds described in this chapter includes the approval of the issuance of any bonds to refund any bonds originally issued under this chapter or any previously issued refunding bonds.

5096.678. Notwithstanding any provision of this chapter or the State General Obligation Bond Law, if the Treasurer sells bonds pursuant to this chapter that include a bond counsel opinion to the effect that the interest on the bonds is excluded from gross income for federal tax purposes, subject to designated conditions, the Treasurer may maintain separate accounts for the investment of bond proceeds and the investment earnings on those proceeds. The Treasurer may use or direct the use of those proceeds or earnings to pay any rebate, penalty, or other payment required under federal law or to take any other action with respect to the investment and use of bond proceeds required or desirable under federal law to maintain the tax-exempt status of those bonds and to obtain any other advantage under federal law on behalf of the funds of this state.

5096.679. (a) The Legislature hereby finds and declares that, inasmuch as the proceeds from the sale of bonds authorized by this chapter are not “proceeds of taxes” as that term is used in

Article XIIIB of the California Constitution, the disbursement of these proceeds is not subject to the limitations imposed by that article.
(b) Funds provided pursuant to this chapter, and any appropriation or transfer of those funds, shall not be deemed to be a transfer of funds for the purposes of Chapter 9 (commencing with Section 2780) of Division 3 of the Fish and Game Code.

5096.681. Except for funds continuously appropriated by this chapter, all appropriations of funds pursuant to Section 5096.610 for purposes of the program shall be included in the Budget Bill for the 2002-03 fiscal year, and each succeeding fiscal year, for consideration by the Legislature, and shall bear the label "California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Program Fund." The Budget Bill section shall contain separate items for each project, each class of project, or each element of the program for which an appropriation is made.
5096.683. The Secretary shall provide for an annual audit of expenditures from this chapter.
SEC. 2. Section 1 of this act shall take effect upon adoption by the voters of the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002, as set forth in Section 1 of this act.
SEC. 3. (a) Notwithstanding the requirements of any other provision of law, the Secretary of State shall submit Section 1 of this act to the voters at the March 5, 2002, primary election.
(b) The Secretary of State shall ensure the placement of Section 1 of this act on the March 5, 2002, statewide ballot, in accordance with provisions of the Government Code and the Elections Code governing the submission of statewide measures to the voters.
(c) The Secretary of State shall include, in the ballot pamphlets mailed pursuant to Section 9094 of the Elections Code, the information specified in Section 9084 of the Elections Code regarding the bond act set forth in Section 1 of this act.
SEC. 4. (a) Notwithstanding any other provision of law, with respect to the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002, all ballots of the election shall have printed thereon and in a square thereof, exclusively the words: "The California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002" and in the same square under those words, the following 8-point type: "To protect rivers, lakes, and streams to improve water quality and ensure clean drinking water; to protect beaches and coastal areas threatened by pollution; to improve air quality; to preserve open space and farmland threatened by unplanned development; to protect wildlife habitat; to restore historical and cultural resources; to repair and improve the safety of state and neighborhood parks; the state shall issue bonds totaling two billion six hundred million dollars ($2,600,000,000) paid from existing funds. This program is subject to an annual independent audit. (At this point the Attorney General may include the financial impact summary prepared pursuant to Section 9087 of the Elections Code and Section 88003 of the Government Code.)" Opposite the square, there shall be left spaces in which the voters may place a cross in the manner required by law to indicate whether they vote for or against the act.
(b) Where the voting in the election is done by means of voting
machines used pursuant to law in a manner that carries out the intent of this section, the use of the voting machines and the expression of the voter's choice by means thereof are in compliance with this section.
SEC. 5. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are: In order that the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002, set forth in Section 1 of this act, may be submitted for voter approval at the earliest feasible time, it is necessary that this act take effect immediately.

APPENDIX Q - EXAMPLE OF SUCCESSFUL FUNDING – PROPOSITION 40 2002 FUNDING SCHEDULE

Proposition 40

Funding Schedule for the March, 2002 Clean Water, Clean Air,			
Safe Neighborhood Parks, and Coastal Protection Bond Act	$2.6 billion		
STATE PARKS			225,000,000
State Park System Acquisition and Development		225,000,000	
LOCAL PARKS AND RECREATION			832,500,000
Local Park and Recreation Acquisition and Development		550,000,000	
LA County and City Parks		22,500,000	
Central Park, Rancho Cucamonga		10,000,000	
Hansen Dam Recreation, Los Angeles		5,000,000	
Sepulveda Basin Recreation, Los Angeles		5,000,000	
Recreation needs in low income, high density urban areas		240,000,000	
HISTORIC AND CULTURAL RESOURCES			267,500,000
Golden Gate Park		35,000,000	
El Pueblo Cultural and Performing Arts Center, Los Angeles		2,500,000	
Historic and Cultural Resources Preservation		230,000,000	
LAND, AIR AND WATER RESOURCES			1,275,000,000
Wildlilfe Conservation Board		300,000,000	
Coastal Conservancy		200,000,000	
Tahoe Conservancy		40,000,000	
Santa Monica Mountains Conservancy		40,000,000	
Coachella Valley Mountains Conservancy		20,000,000	
San Joaquin River Conservancy		25,000,000	
San Gabriel River and Lower LA River and Mnts Conservancy		40,000,000	
Baldwin Hills Conservancy		40,000,000	
San Francisco Bay Area Conservancy		40,000,000	
River Parkways and Urban Streams		75,000,000	
Watershed protection, clean beaches, rivers, streams		300,000,000	
Air quality in park and recreation areas		50,000,000	
State Conservation Corps		5,000,000	
Local Conservation Corps		15,000,000	
Agricultural Land Conservation, including Oak Woodlands		75,000,000	
Urban Forestry		10,000,000	
Total		**2,600,000,000**	

APPENDIX R - EXAMPLE OF SUCCESSFUL FUNDING – PROPOSITION 40 AVAILABLE FUNDS FOR KERN AND LOS ANGELES COUNTIES

Available Funding for Kern County and Cities from Proposition 40: Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act

Kern County

	Per Capita Funds	RZH County and Regional Parks District Allocations	RZH Urbanized Allocations
Kern County	1,869,000	$1,061,894	
Arvin	**		
Bakersfield*	1,019,000		$614,260
California City	220,000		
Delano	220,000		
Maricopa	220,000		
McFarland	**		
Ridgecrest	220,000		
Shafter	**		
Taft	**		
Tehachapi	**		
Wasco	**		
Bear Mountain RPD	220,000		
Buttonwillow RPD	220,000		
McFarland RPD	220,000		
North Bakersfield RPD	220,000		$218,227
Shafter RPD	220,000		
Tehachapi RPD	220,000		
Wasco RPD	220,000		
Westside RPD	220,000		

*$50,000,000 will be available for the city of Bakersfield through competetive grants for the Murray-Hayden Urban Parks and Youth Service Program

** The per capita funds for these cities are included within the RPD per capita funds because the RPD's manage these cities' parks.

Additional Statewide Clean Air, Clean Water, Historical and Cultural Funds:

$190,000,000 will be available through competetive grants for urban parks and park poor communities

$300,000,000 will be available to grant out for the County and cities by the Wildlife Conservation

Board for habitat enhancement and restoration, inland wetlands conservation program and riparian habitat conservation. Contact the WCB for full eligibility information.

Historical and Cultural Resources Preservation:	$230,000,000
Air Quality in park and recreation areas:	$50,000,000
River parkways and Urban Streams:	$75,000,000
Watershed Protection, clean beaches, rivers and streams:	$300,000,000
State Air Resources Board:	$50,000,000
California Conservation Corps:	$20,000,000
Agricultural Land Conservation:	$75,000,000
Urban Forestry:	$10,000,000

Available Funding for Kings County and Cities from Proposition 40: Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act

Kings County

	Per Capita Funds
Kings County	1,200,000
Avenal	220,000
Corcoran	220,000
Hanford	220,000
Lemoore	220,000

Additional Statewide Clean Air, Clean Water, Historical and Cultural Funds:

$190,000,000 will be available through competetive grants for urban parks and park poor communities
$300,000,000 will be available to grant out for the County and cities by the Wildlife Conservation Board for habitat enhancement and restoration, inland wetlands conservation program and riparian habitat conservation. Contact the WCB for full eligibility information.

Historical and Cultural Resources Preservation:	$230,000,000
Air Quality in park and recreation areas:	$50,000,000
River parkways and Urban Streams:	$75,000,000
Watershed Protection, clean beaches, rivers and streams:	$300,000,000
State Air Resources Board:	$50,000,000
California Conservation Corps:	$20,000,000
Agricultural Land Conservation:	$75,000,000
Urban Forestry:	$10,000,000

Available Funding for Lake County and Cities from Proposition 40: Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act

Lake County

	Per Capita Funds
Lake County	1,200,000
Clearlake	220,000
Lakeport	220,000

Additional Statewide Clean Air, Clean Water, Historical and Cultural Funds:

$190,000,000 will be available through competetive grants for urban parks and park poor communities
$300,000,000 will be available to grant out for the County and cities by the Wildlife Conservation Board for habitat enhancement and restoration, inland wetlands conservation program and riparian habitat conservation. Contact the WCB for full eligibility information.

Historical and Cultural Resources Preservation:	$230,000,000
Air Quality in park and recreation areas:	$50,000,000
River parkways and Urban Streams:	$75,000,000
Watershed Protection, clean beaches, rivers and streams:	$300,000,000
State Air Resources Board:	$50,000,000
California Conservation Corps:	$20,000,000
Agricultural Land Conservation:	$75,000,000
Urban Forestry:	$10,000,000

Available Funding for Lassen County and Cities from Proposition 40: Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act

Lassen County

	Per Capita Funds
Lassen County	1,200,000
Susanville	220,000

Additional Statewide Clean Air, Clean Water, Historical and Cultural Funds:

$190,000,000 will be available through competetive grants for urban parks and park poor communities
$300,000,000 will be available to grant out for the County and cities by the Wildlife Conservation Board for habitat enhancement and restoration, inland wetlands conservation program and riparian habitat conservation. Contact the WCB for full eligibility information.

Historical and Cultural Resources Preservation:	$230,000,000
Air Quality in park and recreation areas:	$50,000,000
River parkways and Urban Streams:	$75,000,000
Watershed Protection, clean beaches, rivers and streams:	$300,000,000
State Air Resources Board:	$50,000,000
California Conservation Corps:	$20,000,000
Agricultural Land Conservation:	$75,000,000
Urban Forestry:	$10,000,000

Available Funding for Los Angeles County and Cities from Proposition 40: Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act

Los Angeles County

	Confirmed Funds, No Application Process		**Funds Available Through Application, Not Guaranteed**		
	Per Capita Funds	RZH Urbanized Allocations	Possible San Gabriel and Lower LA Rivers and Mtns Conservancy Funds***	Possible Baldwin Hills Conservancy Funds***	Possible Santa Monica Mountains Conservancy Funds***
Los Angeles County*	37,478,000 *		$40,000,000	$40,000,000	$40,000,000
Agoura Hills	220,000	$64,493			$40,000,000
Alhambra	448,000	$270,200	$40,000,000		
Arcadia	261,000	$157,228	$40,000,000		
Artesia	220,000	$49,935	$40,000,000		
Avalon	220,000	$0			
Azusa	223,000	$134,663	$40,000,000		
Baldwin Park	373,000	$224,487	$40,000,000		
Bell	220,000	$110,788	$40,000,000		
Bell Gardens	221,000	$133,207	$40,000,000		
Bellflower	330,000	$198,865	$40,000,000		
Beverly Hills	220,000	$102,199			
Bradbury	220,000	$2,824	$40,000,000		
Burbank	515,000	$310,089			$40,000,000
Calabasas	220,000	$59,543			$40,000,000
Carson	450,000	$271,365			
Cerritos	281,000	$169,166	$40,000,000		
Claremont	220,000	$104,673	$40,000,000		
Commerce	220,000	$38,870	$40,000,000		
Compton	474,000	$285,341	$40,000,000		$40,000,000

Covina	232,000	$139,759	$40,000,000		
Cudahy	220,000	$75,266			
Culver City	220,000	$124,618		$40,000,000	

* Allocation for County of Los Angeles with AB 1602 Formula includes additional $9,447,000 per PRC Section 5096.621 (g).
** The allocation for the City of Los Angeles with AB 1602 Formula includes additional $11,808,000 per PRC Section 5096.621(g).
***The Conservancy funds are available through an application process for the county and specified cities within the county for projects which center around the goal of the individual conservancy, such as acquisition, development, rehabilitation, restoration, and protection of land and water resources.

Additional Confirmed Grants to individual cities and counties:
$20,430,129 for the County of Los Angeles from the Roberti Z'Berg Harris County and Regional Parks District Allocations
$5,000,000 to the City of Los Angeles for the Hansen Dam Recreation Area
$5,000,000 to the City of Los Angeles for the Sepulveda Basin Recreation Area
$2,500,000 to the City of Los Angeles for El Pueblo Cultural and Performing Arts Center

	Confirmed Funds, No Application Process		**Funds Available Through Application, Not Guaranteed**		
	Per Capita Funds	RZH Urbanized Allocations	Possible San Gabriel and Lower LA Rivers and Mtns Conservancy Funds**	Possible Baldwin Hills Conservancy Funds**	Possible Santa Monica Mountains Conservancy Funds***
Diamond Bar	286,000	$172,078	$40,000,000		
Downey	493,000	$297,278	$40,000,000		
Duarte	220,000	$66,968	$40,000,000		
El Monte	580,000	$349,397	$40,000,000		
El Segundo	220,000	$49,061			
Gardena	288,000	$173,534			
Glendale	984,000	$593,101			$40,000,000
Glendora	260,000	$156,646	$40,000,000		
Diamond Bar	286,000	$172,078	$40,000,000		
Downey	493,000	$297,278	$40,000,000		
Duarte	220,000	$66,968	$40,000,000		
El Monte	580,000	$349,397	$40,000,000		
El Segundo	220,000	$49,061			
Gardena	288,000	$173,534			

Glendale	984,000	$593,101			$40,000,000
Glendora	260,000	$156,646	$40,000,000		
Hawaiian Gardens	220,000	$44,257	$40,000,000		
Hawthorne	389,000	$234,387			
Hermosa Beach	220,000	$57,214			
Hidden Hills	220,000	$5,969			
Huntington Park	307,000	$185,180	$40,000,000		
Industry	220,000	$2,009	$40,000,000		
Inglewood	585,000	$352,308		$40,000,000	
Irwindale	220,000	$3,494	$40,000,000		
La Canada-Flintridge	220,000	$61,436			$40,000,000
La Habra Heights	220,000	$20,090	$40,000,000		
La Mirada	241,000	$145,291	$40,000,000		
La Puente	220,000	$122,971	$40,000,000		
La Verne	220,000	$101,325	$40,000,000		
Lakewood	391,000	$235,843	$40,000,000		
Lancaster	640,000	$385,501			
Lawndale	220,000	$89,824			
Lomita	220,000	$60,999			
Long Beach	2,211,000	$2,127,022	$40,000,000		
Los Angeles	30,280,000**	$17,770,117	$40,000,000	$40,000,000	$40,000,000
Lynwood	335,000	$201,777	$40,000,000		$40,000,000
Malibu	220,000	$38,725			$40,000,000
Manhattan Beach	220,000	$105,110			
Maywood	220,000	$88,514	$40,000,000		$40,000,000
Monrovia	220,000	$119,523	$40,000,000		
Montebello	314,000	$189,256	$40,000,000		
Monterey Park	326,000	$196,244	$40,000,000		
Norwalk	505,000	$304,266	$40,000,000		
Palmdale	591,000	$356,385	$40,000,000		
Palos Verdes Estates	220,000	$42,947			
Paramount	273,000	$164,799	$40,000,000		
Pasadena	695,000	$418,985	$40,000,000		
Pico Rivera	315,000	$189,839	$40,000,000		
Pomona	714,000	$430,049	$40,000,000		
Rancho Palos Verdes	220,000	$130,878			
Redondo Beach	327,000	$196,827			
Rolling Hills	220,000	$6,027			
Rolling Hills Estates	220,000	$25,550			
Rosemead	277,000	$166,837	$40,000,000		
San Dimas	220,000	$108,750	$40,000,000		
San Fernando	220,000	$71,917			
San Gabriel	220,000	$121,124	$40,000,000		

San Marino	220,000	$40,763	$40,000,000		
Santa Clarita	731,000	$440,531			$40,000,000
Santa Fe Springs	220,000	$47,896	$40,000,000		
Santa Monica	466,000	$280,973		$40,000,000	
Sierra Madre	220,000	$34,066	$40,000,000		$40,000,000
Signal Hill	220,000	$26,933	$40,000,000		
South EL Monte	220,000	$66,094	$40,000,000		
South Gate	460,000	$277,479			
South Pasadena	220,000	$75,703			$40,000,000
Temple City	220,000	$101,179	$40,000,000		
Torrance	712,000	$429,176			
Vernon	220,000	$247	$40,000,000		
Walnut	220,000	$96,666	$40,000,000		
West Covina	520,000	$313,263	$40,000,000		
West Hollywood	220,000	$113,263			
Westlake Village	220,000	$25,040			$40,000,000
Whittier	417,000	$250,983	$40,000,000		
Westfield RPD	220,000	$2,620			

Additional Statewide Clean Air, Clean Water, Historical and Cultural Funds:

$190,000,000 will be available through competetive grants for urban parks and park poor communities
$300,000,000 will be available to grant out for the County and cities by the Wildlife Conservation Board for habitat enhancement and restoration, inland wetlands conservation program and riparian habitat conservation. Contact the WCB for full eligibility information.
$200,000,000 will be available to grant out to the County and cities by the State Coastal Conservancy for projects relating to the Conservancy's goals.
$50,000,000 will be available through competetive grants for the county and its cities for the Murray-Hayden Urban Parks and Youth Service Program

Historical and Cultural Resources Preservation:	$230,000,000
Air Quality in park and recreation areas:	$50,000,000
River parkways and Urban Streams:	$75,000,000
Watershed Protection, clean beaches, rivers and streams:	$300,000,000
State Air Resources Board:	$50,000,000
California Conservation Corps:	$20,000,000
Agricultural Land Conservation:	$75,000,000
Urban Forestry:	$10,000,000

APPENDIX S - PROPOSITION 50

Proposition 50

CLEAN WATER AND COASTAL PROTECTION BOND OF 2002

This $3.44 billion initiative measure, includes the following funding categories:

1. WATER QUALITY		**$955 million**
	A. Water Security	$50 million
	B. Safe Drinking Water	$435 million
	C. Clean Water and Water Quality	$370 million
	D. Contaminant and Salt Removal Technologies	$100 million
2. CALFED BAY-DELTA PROGRAM		**$825 million**
3. REGIONAL PROJECTS:		**$710 million**
	4. Integrated Regional Water Management Water supply reliability, storm water capture Wetland restoration, pollution reduction Groundwater recharge, salt removal and reclamation Water banking and exchange Integrated flood management Fish and wildlife enhancement	$640 million
	B. Colorado River	$70 million
4. Coastal protection		**$950 million**
TOTAL		**$3.44 billion**

Summary of Funds in Proposition 50:

Chapter	Program	Amount, Million $	Comments
3	Water Security	50	• Purpose is to protect state, local, and regional drinking water systems from terrorist attack or deliberate acts of destruction or degradation. • This money may be expended or granted for monitoring and early warning systems, fencing, protective structures, contamination treatment facilities, emergency interconnections, communications systems, and other projects designed to prevent damage to water treatment, distribution, and supply facilities, to prevent disruption of drinking water deliveries, and to protect drinking water supplies from intentional contamination.
4	Safe Drinking Water	435	• Funds available to the State Department of Health Services for grants and loans for infrastructure improvements and related actions to meet safe drinking water standards including, but not limited to, the following types of projects: (1) Grants to small community drinking water systems to upgrade monitoring, treatment, or distribution infrastructure. (2) Grants to finance development and demonstration of new technologies and related facilities for water contaminant removal and treatment. (3) Grants for community water quality monitoring facilities and equipment. (4) Grants for drinking water source protection. (5) Grants for treatment facilities necessary to meet disinfectant by-product safe drinking water standards. (6) Loans pursuant to the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760) of Part 12 of Division 104 of the Health and Safety Code). • Not less than sixty percent (60 percent) of the money appropriated pursuant to this section shall be available for grants to Southern California water agencies to assist in meeting the state's commitment to reduce Colorado River water use to 4.4 million acre feet per year.
5	Clean Water and Water Quality	Total of 370 with: 100	• Fund available to the board for competitive grants for the following purposes: (1) Water pollution prevention. (2) Water reclamation. (3) Water quality improvement. (4) Water quality blending and exchange projects. (5) Drinking water source protection projects. (6) Projects to mitigate pathogen risk from recreational uses at drinking water storage facilities. • Priority shall be given to projects that assist in meeting water quality standards established by the board. • The Legislature may enact such legislation as is necessary to implement this section.
		100	• Fund available to the secretary for the acquisition from willing sellers, restoration, protection, and development of river parkways. Priority shall be given to projects that are implemented pursuant to approved watershed plans and include water quality and watershed protection benefits. This money may also be used to acquire facilities necessary to provide flows to improve water quality downstream.
		40	• Fund available to the California Tahoe Conservancy for acquisition from willing sellers, restoration, and protection of land and water resources to improve water quality in Lake Tahoe.
		100 with: ≥20 for Santa Monica Bay	• Fund Available to the board for the purpose of financing projects that restore and protect the water quality and environment of coastal waters, estuaries, bays and near-shore waters, and groundwater. • Expended to implement priority actions specified in the Santa Monica Bay Restoration Plan. Money made available pursuant to this section shall supplement, not supplant, money appropriated or available pursuant to that Article 5 (commencing with Section 79148), and no money appropriated pursuant to this section shall be used for a project for which an appropriation was made pursuant

Chapter	Program	Amount, Million $	Comments
			to that Article 5 (commencing with Section 79148).
5 (Cont.)	Clean Water and Water Quality	30	• Fund available to the secretary for the purpose of grants to local public agencies, local water districts, and nonprofit organizations for acquisition from willing sellers of land and water resources to protect water quality in lakes, reservoirs, rivers, streams and wetlands in the Sierra Nevada-Cascade Mountain Region as defined in Section 5096.347 of the Public Resources Code.
6	Contaminant and Salt Removal Technologies.	Total of 100 with ≥50 for Desalination Projects	• Fund available to the department for grants for the following projects: (a) Desalination of ocean or brackish waters. This money is available for desalination projects. To be eligible to receive a grant, at least fifty percent (50 percent) of the total cost of the project shall be met by matching funds or donated services from nonstate sources. (b) Pilot and demonstration projects for treatment or removal of the following contaminants: (1) Petroleum products, such as MTBE and BTEX. (2) N-Nitrosodimethylamine (NDMA). (3) Perchlorate. (4) Radionuclides, such as radon, uranium, and radium. (5) Pesticides and herbicides. (6) Heavy metals, such as arsenic, mercury, and chromium. (7) Pharmaceuticals and endocrine disrupters. (c) Drinking water disinfecting projects using ultraviolet technology and ozone treatment. Department of Health Services (DHS) to administer technical aspects of program, via agreement with DWR.
7	CALFED Bay-Delta Program	Total of 825 with: 50 75 70 180 180 90 180	• Fund available for the balanced implementation of the CALFED Bay-Delta Program. Expenditures and grants pursuant to this chapter shall be limited to the following : (a) Surface water storage planning and feasibility studies. (b) Water conveyance facilities described in subparagraph (B) of paragraph (2) of subdivision (d) of Section 79190. (c) Delta levee restoration. Money expended pursuant to this subdivision shall be subject to Section 79050. (d) Water supply reliability projects that can be implemented expeditiously and thereby provide near-term benefits, including, but not limited to, projects that facilitate groundwater management and storage, water transfers, and acquisition of water for the CALFED environmental water account. In acquiring water, preference shall be given to long-term water purchase contracts and water rights. Money allocated pursuant to this subdivision shall be subject to Article 4 (commencing with Section 79205.2) of Chapter 9 of Division 26. (e) Ecosystem restoration program implementation of which not less than twenty million dollars ($20,000,000) shall be allocated for projects that assist farmers in integrating agricultural activities with ecosystem restoration. (f) Watershed program implementation. (g) Urban and agricultural water conservation, recycling, and other water use efficiency projects. • All appropriations pursuant to this chapter shall include money for independent scientific review, monitoring, and assessment of the results or effectiveness of the project or program expenditure. • All projects financed pursuant to this chapter shall be consistent with the CALFED Programmatic Record of Decision including its provisions regarding finance and balanced implementation. • Consistent with the CALFED Programmatic Record of Decision, priority shall be given to projects that achieve multiple benefits across CALFED program elements. Not more than five percent (5 percent) of the money available pursuant to this chapter may be used for administrative costs. • All real property acquired with money appropriated or granted pursuant to subdivision (e) or (f) of Section 79550 shall be acquired from willing sellers.

Chapter	Program	Amount, Million $	Comments
8	Integrated Regional Water Management	Total of 500 with: 250 for DWR and 250 for SWRCB	• Funds available for competitive grants for projects are set forth in this section to protect communities from drought, protect and improve water quality, and improve local water security by reducing dependence on imported water. No project financed pursuant to this section shall include an on-stream surface water storage facility or an off-stream surface water storage facility other than percolation ponds for groundwater recharge in urban areas. No river or stream channel modification project whose construction or operation causes any negative environmental impacts may be financed pursuant to this chapter unless those impacts are fully mitigated. • Available for grants for water management projects that include one or more of the following elements: (a) Programs for water supply reliability, water conservation, and water use efficiency. (b) Storm water capture, storage, treatment, and management. (c) Removal of invasive non-native plants, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands. (d) Nonpoint-source pollution reduction, management, and monitoring. (e) Groundwater recharge and management projects. (f) Contaminant and salt removal through reclamation, desalting, and other treatment technologies. (g) Water banking, exchange, reclamation, and improvement of water quality. (h) Planning and implementation of multipurpose flood control programs that protect property and improve water quality, storm water capture and percolation and protect or improve wildlife habitat. (i) Watershed management planning and implementation. (j) Demonstration projects to develop new drinking water treatment and distribution methods. • An amount, not to exceed ten percent (10 percent) of the money available for appropriation in Section 79560, may be appropriated by the Legislature for facilities, equipment, and other expenses associated with the establishment of comprehensive statewide groundwater monitoring pursuant to Part 2.76 (commencing with Section 10780) of Division 6. • At least fifty percent (50 percent) of the amount available for appropriation in Section 79560 shall be appropriated to the board. The board shall establish procedures for selecting among eligible projects specified in Section 79561 that use the procedures developed by the board for stakeholder-based accelerated selection and contracting pursuant to Section 79104.32. • To be eligible for financing pursuant to Section 79563, a project shall meet both of the following criteria: (a) The project is consistent with an adopted integrated water management plan designed to improve regional water supply reliability, water recycling, water conservation, water quality improvement, storm water capture and management, flood management, recreation and access, wetlands enhancement and creation, and environmental and habitat protection and improvement. (b) The project includes matching funds or donated services from nonstate sources. 79565. Notwithstanding Section 13340 of the Government Code, the sum of one hundred forty million ($140,000,000) is hereby continuously appropriated from the fund to the Wildlife Conservation Board, without regard to fiscal years, for expenditure by the board and for grants, for the acquisition from willing sellers of land and water resources, including the acquisition of conservation easements, to protect regional water quality, protect and enhance fish and wildlife habitat, and to assist local public agencies in improving regional water supply reliability.
8	Integrated Regional Water Management	140	• Grants for the acquisition from willing sellers of land and water resources, including acquisition of conservation easements, to protect regional water quality, protect and enhance fish and wildlife habitat, and to assist local public agencies in improving regional water supply reliability.

Chapter	Program	Amount, Million $	Comments
9	Colorado River	20 50	• Fund available to the department for grants for canal lining and related projects necessary to reduce Colorado River water use pursuant to the California Colorado River Water Use Plan adopted by the Colorado River Board of California. • Fund available to the Wildlife Conservation Board for the acquisition, protection, and restoration of land and water resources necessary to meet state obligations for regulatory requirements related to California's allocation of water supplies from the Colorado River. No money allocated pursuant to this section may be used to supplant or pay for the regulatory mitigation obligations of private parties under state or federal law. All real property acquired pursuant to this section shall be acquired from willing sellers.
10	Coastal Watershed and Wetland Protection	Total of 200 with:	• Funds available for expenditures and grants for the purpose of protecting coastal watersheds, including, but not limited to, acquisition, protection, and restoration of land and water resources and associated planning, permitting, and administrative costs, in accordance with the following schedule:
		120	(a) Available to the State Coastal Conservancy for coastal watershed protection pursuant to Division 21 (commencing with Section 31000) of the Public Resources Code.
		20	(b) Available to the State Coastal Conservancy for expenditure for the San Francisco Bay Conservancy Program for coastal watershed protection pursuant to Chapter 4.5 (commencing with Section 31160) of Division 21 of the Public Resources Code.
		20 20	(c) Available to the Santa Monica Mountains Conservancy. - Expended for protection of the Los Angeles River watershed upstream of the northernmost boundary of the City of Vernon, and - Expended for protection of the Santa Monica Bay and Ventura County coastal watersheds, pursuant to Division 23 (commencing with Section 33000) of the Public Resources Code.
		20	(d) Available to the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy for protection of the San Gabriel and lower Los Angeles River watersheds pursuant to Division 22.8 (commencing with Section 32600) of the Public Resources Code.
			• 79571. Ten percent (10 percent) of the money allocated in each of the categories in Section 79570 shall be used for grants for the acquisition and development of facilities to promote public access to and participation in the conservation of land, water, and wildlife resources. Eligible projects include, but are not limited to, the following: - Training and research facilities for watershed protection and water conservation activities conducted by nonprofit organizations. Priority shall be given to projects operated by nonprofit organizations in collaboration with the University of California and public water agencies. - Nature centers that are in or adjacent to watersheds and wetlands identified for protection pursuant to this chapter, that provide wildlife viewing, outdoor experiences, and conservation education programs to the public and to students. Priority shall be given to projects that are operated by or in cooperation with nonprofit organizations and are designed to serve children from urban areas that lack access to natural areas and outdoor education programs.
10	Coastal Watershed and Wetland Protection	Total of 750 with:	• Fund available to the Wildlife Conservation Board, without regard to fiscal years, for the acquisition, protection, and restoration of coastal wetlands, upland areas adjacent to coastal wetlands, and coastal watershed lands. Money appropriated pursuant to this section shall be for the acquisition, protection, and restoration of lands in or adjacent to urban areas. Eligible projects shall be limited to the following:

Chapter	Program	Amount, Million $	Comments
		≥300	(1) Acquisition, protection, and restoration of coastal wetlands identified in the Southern California Coastal Wetlands Inventory as of January 1, 2001, published by the State Coastal Conservancy, located within the coastal zone, and other wetlands connected and proximate to such coastal wetlands, and upland areas adjacent and proximate to such coastal wetlands, or coastal wetlands identified for acquisition, protection, and restoration in the San Francisco Baylands Ecosystem Habitat Goals Report, and upland areas adjacent to the identified wetlands.
		≤200	(2) Acquisition, protection, and restoration of coastal watershed and adjacent lands located in Los Angeles, Ventura, and Santa Barbara Counties. Any project financed pursuant to this paragraph within the Santa Monica Mountains Zone, as defined in Section 33105 of the Public Resources Code, shall be by grant from the Wildlife Conservation Board to the Santa Monica Mountains Conservancy. Any project financed pursuant to this paragraph within the Baldwin Hills area, as defined in Section 32553 of the Public Resources Code, shall be by grant from the Wildlife Conservation Board to the Baldwin Hills Conservancy.
			• Expended or granted for projects within Los Angeles and Ventura Counties. Of the remaining funds available pursuant to this section the Wildlife Conservation Board shall give priority to the acquisition of not less than 100 acres consisting of upland mesa areas, including wetlands therein, adjacent to the state ecological reserve in the Bolsa Chica wetlands in Orange County. • Expended or granted for projects in the San Francisco Bay area, as described in Section 31162 of the Public Resources Code. Any project within the San Francisco Bay area may be by grant from the Wildlife Conservation Board to the State Coastal Conservancy. • The purchase price for each acquisition made pursuant to this Section 79572 shall not exceed the fair market value of the property as defined in Section 1263.320 of the Code of Civil Procedure. Fair market value shall be determined by an appraisal that is prepared by a licensed real estate appraiser and approved by the Wildlife Conservation Board and the Department of General Services. • All real property acquired pursuant to this chapter shall be acquired from willing sellers.
11	Fiscal Provisions	Total of 3,440 for All Programs	• Bonds not including the amount of any refunding bonds issued in accordance with Section 79588, or so much thereof as is necessary, may be issued and sold to be used for carrying out the purposes set forth in this division and to be used to reimburse the General Obligation Bond Expense Revolving Fund pursuant to Section 16724.5 of the Government Code. The bond proceeds shall be deposited in the Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002 created by Section 79510. The bonds shall, when sold, be and constitute a valid and binding obligation of the State of California, and the full faith and credit of the State of California is hereby pledged for the punctual payment of both principal of and interest on the bonds as they become due and payable. • The bonds authorized by this division shall be prepared, executed, issued, sold, paid, and redeemed as provided in the State General Obligation Bond Law (Chapter 4 (commencing with Section 16720) of Part 3 of Division 4 of Title 2 of the Government Code), and all provisions of that law shall apply to the bonds and to this division and are hereby incorporated in this division by this reference as though fully set forth in this division. • (a) Solely for the purpose of authorizing the issuance and sale, pursuant to the State General Obligation Bond Law, of the bonds authorized by this division, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 Finance Committee is hereby created. For purposes of this division, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 Finance Committee is "the committee" as that term is used by the State General Obligation Bond Law. The committee shall consist of the Controller, the Director of Finance, and the Treasurer,

Chapter	Program	Amount, Million $	Comments
			or their designated representatives. The Treasurer shall serve as chairperson of the committee. A majority of the committee may act for the committee. (b) For purposes of this chapter and the State General Obligation Bond Law, the secretary is designated as "the board." • The committee shall determine whether or not it is necessary or desirable to issue bonds authorized pursuant to this division in order to carry out the actions specified in this division and, if so, the amount of bonds to be issued and sold. Successive issues of bonds may be authorized and sold to carry out those actions progressively, and it is not necessary that all of the bonds authorized to be issued be sold at any one time. • There shall be collected annually in the same manner and at the same time as other state revenue is collected, in addition to the ordinary revenues of the state, a sum in an amount required to pay the principal of, and interest on, the bonds maturing each year, and it is the duty of all officers charged by law with any duty in regard to the collection of the revenue to do so and perform each and every act that is necessary to collect that additional sum. • Notwithstanding Section 13340 of the Government Code, there is hereby appropriated from the General Fund, for purposes of this division, an amount that will equal the total of the following: (a) The sum annually necessary to pay the principal of, and interest on, bonds issued and sold pursuant to this division, as the principal and interest become due and payable. (b) The sum which is necessary to carry out the provisions of Section 79586, appropriated without regard to fiscal years. • For the purposes of carrying out this division, the Director of Finance may authorize the withdrawal from the General Fund of an amount or amounts not to exceed the amount of the unsold bonds that have been authorized to be sold for the purpose of carrying out this division. Any amounts withdrawn shall be deposited in the fund. Any money made available under this section shall be returned to the General Fund, plus the interest that the amounts would have earned in the Pooled Money Investment Account, from money received from the sale of bonds that would otherwise be deposited in that fund. • All money derived from premium and accrued interest on bonds sold shall be reserved and shall be available for transfer to the General Fund as a credit to expenditures for bond interest. • Any bonds issued or sold pursuant to this division may be refunded by the issuance of refunding bonds in accordance with Article 6 (commencing with Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of the Government Code. Approval by the electors of the state for the issuance of the bonds shall include approval of the issuance of any bonds issued to refund any bonds originally issued or any previously issued refunding bonds. • The people of California hereby find and declare that inasmuch as the proceeds from the sale of bonds authorized by this division are not "proceeds of taxes" as that term is used in Article XIII B of the California Constitution, the disbursement of these proceeds is not subject to the limitation imposed by that article. • SEC. 2. If any provision of this act or the application thereof is held invalid, that invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are severable.

Two chapters of Proposition 50 allocate funds to the Department of Water Resources for making grants to specific projects. Those chapters are:

Chapter 6 – Contaminant and Salt Removal Technologies

$100 million is allocated for grants for desalination of ocean or brackish water, for pilot/demonstration projects for treatment of specified contaminants, and for drinking water disinfection using ultraviolet and ozonation treatment technology.

Chapter 9 – Colorado River

$20 million is allocated for grants for canal lining projects contained in the Colorado River Board's California Colorado River Water Use Plan.

Water Code Section 79560.1 (Chapter 618, statutes of 2002) additionally provides that the Department would administer 50 percent of the $500 million provided in Chapter 8 for integrated regional water management grants for projects to "protect communities from drought, protect and improve water quality, and improve local water security by reducing dependence on imported water". The table below summarizes Proposition 50 funding allocated to the Department by statute.

Funds Allocated to Department of Water Resources by Proposition 50

Chapter	Program	Amount, million $	Comments
6	Desalting	50	Statute requires 50 percent cost share
6	Drinking water treatment technology and contaminant removal	50	DHS to administer technical aspects of program, via agreement with DWR
8	Integrated regional water management	250	Funds allocated to DWR by Water Code Section 79560.1
9	Colorado River canal lining	20	Supplements funding for existing contracts initially funded by 1998 budget

Chapter 7 of Proposition 50 allocates $825 million for implementation of the CALFED Bay-Delta program, which will be administered by the California Bay-Delta Authority.

Process and Schedule for Applying for Department Proposition 50 Funds

As it becomes available, information on applying for funds appropriated to the Department of Water Resources will be posted at http://www.dof.ca.gov/fisa/bag/process.htm for a Department of Finance summary of the State budget process and schedule.

APPENDIX T - PROPOSITION 82

Proposition 82

Water Conservation Bond Law of 1988

Funding Available

- Total program funds authorized: $20 million
- Funds available for fiscal year 2002/2003: $10.9 million
- Per applicant funding limit: $5 million per eligible project

Water conservation projects with loan applications certified or on file with the DWR could save an estimated 68,000 afy. Typical water conservation projects often involve concrete lining of irrigation canals or replacing leaking water mains.

Examples of Past Projects

Groundwater recharge projects with applications certified or on file with DWR could recharge an estimated 266,000 afy. A Proposition 82 groundwater recharge project by the Mojave Water Agency will oversize the first reach of the Morongo Basin Pipeline and use the extra capacity to provide water for recharging the aquifer beneath the Mojave River, thereby reducing the overdraft condition in the basin.

Local water supply projects with loan applications technically certified or on file with the DWR will provide 18,900 afy. One Proposition 82 local water supply project would desalinate brackish groundwater in the City of Oceanside and blend it with existing imported supplies.

For More Information

If you have questions or need more information on Local Water Supply Project Construction Loans contact David A. Rolph (916) 651-9635 or drolph@water.ca.gov

For legal organizational and financial information questions contact Linda Buchanan (916) 651-9645 or lbh@water.ca.gov

Street Address:
901 P Street
Sacramento, CA 95814

Mailing Address:
Post Office Box 942836
Sacramento, CA 94236

Previous Awards:

No loans were awarded during Fiscal Year 2001-02.

APPENDIX U - WATEREUSE FOUNDATION RESEARCH PROGRAM SUMMARY

WateReuse Foundation
Research Program Summary
August 2003

Summary of Projects

Project Title	WRF Project Number
General	
National Database on Water Reuse Facilities	WRF-02-004
Develop a National Salinity Management Clearinghouse and Five-year Research Program	WRF-02-005
A Protocol for Developing Water Reuse Criteria with Reference to Drinking Water Supplies (UKWIR Project)	*WRF-02-011**
Water Reuse Research Needs Workshop	WRF-03-010
Technology	
Rejection of Wastewater-Derived Micropollutants in High-Pressure Membrane Applications Leading to Indirect Potable Reuse: Effects of Membrane and micropollutant Properties	WRF-02-001
Optimization of Filtration Flux for Production of Title 22 Disinfected Tertiary Recycle Water	WRF-02-003
Concentration Disposal in Landlocked Cities Workshop	WRF-02-006
Study of Innovative Treatment on Reclaimed Water	WRF-02-009
Reclaimed Water Aquifer Storage and Recovery: Potential Changes in Water Quality	WRF-03-009
Contaminants	
Develop Low Cost Analytical Method for Measuring NDMA	WRF-01-001
Removal and/or Destruction of NDMA in Wastewater Treatment Processes	WRF-01-002
Characterizing Salinity in Sewer Contributions in Sewer Collection and Reclaimed Water Distribution Systems (AwwaRF Project)	*WRF-01-005**
Characterizing Microbial Water Quality in Non-Potable Reclaimed Water Distribution Systems to Optimize End Uses (AwwaRF Project)	*WRF-01-006**
The Use of Bioassays and Chemical Measurements to Assess the Removal of Endocrine Disrupting Compounds in Water Reclamation Systems (WERF Project)	*WRF-01-007**
Evaluation and Testing of Bioassays for Pharmaceutics in Reclaimed Water (WERF Project)	*WRF-01-008**
Investigation of NDMA Fate and Transport	WRF-02-002
Comparative Study of Recycled Water Irrigation and Fairway Turf	*WRF-02-007**
Study of Reclaimed, Surface, and Ground-Water Quality	WRF-02-008
Pathogen Removal and Inactivation in Reclamation Plants - Study Design	WRF-03-001
Public Acceptance	
Understanding Public Concerns of Indirect Potable Reuse Projects	WRF-01-004
Economics and Marketing	
Marketing Strategies for Non-Potable Recycled Water	WRF-03-005
Economic Analysis of Sustainable Water Use - Benefits and Cost	WRF-03-006

* Projects in italics are co-funding projects that are led by other research organizations.

Introduction

The WateReuse Foundation has approved and funded a number of research projects since 2001. Funding partners include U.S. Bureau of Reclamation and California State Water Resources Control Board as well as Foundation Subscribers, which includes water/wastewater agencies and engineering consulting firms. Projects selected for funding represent the highest priority issues identified by Foundation Subscribers, the Foundation's Research Advisory Committee, and during the Foundation's Annual Water Reuse Research Conference.

General Projects

National Database on Water Reuse Projects (WRF-02-004)

The purpose of this project is to develop a searchable database of pertinent information about water reuse facilities in the United States. This database will serve as a resource for communities and consulting engineers in planning and implementing water reuse projects, provide national level data for understating trends in the water reuse industry, and facilitate water reuse research efforts. Since no current national statistics on water reuse exist, this information will be valuable in understanding the growth of water reuse nationwide. Municipal, industrial, and agricultural water reuse projects will be captured in the database.

Develop a National Salinity Management Clearinghouse and Five-Year Research Program (WRF-02-005)

The most significant limitations to recycling wastewater effluent are increasing levels of total dissolved solids in the raw water, salinity contributions into the wastewater system, and disposal of brine concentration after membrane filtration. New research and access to previous studies are needed to provide recycling agencies with the necessary tools to develop local salinity management strategies. A National Salinity Management Clearinghouse of past research and studies related to salinity management would provide recycling agencies access to this information. A comprehensive 5-year research program will provide an agenda for priority research needs.

A Protocol for Developing Water Reuse Criteria with Reference to Drinking Water Supplies (WRF-02-011)

The objectives of this research study are: document existing standard for water reuse and their rationale/bases; identify merits and weaknesses of existing approaches; identify existing knowledge gaps that hinder development of scientifically supportable water reuse criteria; and develop a rationale for setting standards and developing guidelines based upon pathway/risk end points. (Co-funded project with UKWIR)

Water Reuse Research Needs Workshop (WRF-03-010)

The overall objective of this workshop is to identify the research needs for water reuse and to establish priorities to scientifically address the research gaps related to water reuse. The outcome of the workshop will be a report that will: present the thinking and strategy behind the research needs developed by the workshop participations; identity and establish priorities for the

long-term research needs related to water reuse; and to describe the appropriate sequencing of studies and provide estimates of the annual costs to conduct research on the needs identified.

Technology Projects

Rejection of Wastewater-Derived Micropollutants in High-Pressure Membrane Applications Leading to Indirect Potable Reuse: Effects of Membrane and Micropollutant Properties (WRF-02-001)

The purpose of this project is to evaluate how high-pressure membranes reject trace organics and to develop rejection predictions. High-pressure membrane processes can be very efficient and it is has been demonstrated that some micropollutants such as pesticides can be effectively removed by reverse osmosis and, to a lesser extent, by nanofiltration membranes. However, permeate quality in indirect potable reuse applications must meet stringent requirements for inorganic and organic constituents. (Contract with Colorado School of Mines)

Optimization of Filtration Flux Rate for Production of Title 22 Disinfected Tertiary Recycled Water (WRF-02-003)

The purpose of this project is to evaluate and optimize the filter-loading rate for tertiary filtration units to ensure the microbial safety of recycled water. Currently there are regulatory specified limits on filter loading rates in California that were based on limited scientific data. Establishing an optimal filter loading rate would define appropriate operation specifications for providing microbiologically safe permeate that protects public health and at the same time maximizes treatment flexibility. The results will provide guidance for tertiary filtration system operators and designers of new facilities as well as inform regulators. (Contract Monterey Regional Water Pollution Control Agency)

Concentrate Disposal in Landlocked Cities (WRF-02-006)

The purpose of this project is to research methods of disposing of brine concentrate in inland (i.e., landlocked) communities. Disposal of brine concentrate is a serious issue in areas of the western U.S. such as Phoenix, Las Vegas, Scottsdale, and Tucson that do not have access to a large saline water body to dispose of brine concentrate. As a first step, a workshop was held in March 2003 to develop a list of high priority candidate research topics.

Study of RO and UV and Reclaimed Water (WRF-02-009)

The purpose of this project is to investigate the effectiveness of ultraviolet (UV) light and reverse osmosis (RO) to reduce or eliminate biological and chemical constituents that may be present in reclaimed water. The project will involve bench scale UV and RO testing to determine the removal effectiveness of biological and chemical constituents that will include emerging contaminants. (Tailored Collaboration with Southwest Florida Water Management District).

Reclaimed Water Aquifer Storage and Recovery: Potential Changes in Water Quality (WRF-03-009)

The objective of this project is to examine potential water quality changes and long-term water quality affects arising from reclaimed water Aquifer, Storage, and Recovery (ASR) to help communities understand and evaluate the issues associated with reclaimed water ASR and to help communities make informed decisions regarding the use of reclaimed water ASR. ASR, the storing or banking of water in aquifers can be used to manage water resources for irrigation, ecosystem preservation and restoration, and drinking water supply. ASR has been shown to be a proven, viable, and cost effective approach of storing water for later withdrawal and use usually on an cyclical (e.g., seasonal) or intermittent (as water is available) basis. Recovered water, which may be re-treated, is usually used for non-potable uses such as agriculture and landscape irrigation, industrial uses, and ecosystem restoration.

For engineering, regulatory, monitoring, as well as public acceptance reasons, it is important to understand possible reclaimed water ASR water quality changes due to biological, physical, and geochemical factors of the subsurface environment. Injected water may react with soils, geologic formations, and ground water. A better understanding is needed of the water quality changes and long term water quality impacts associated with reclaimed water ASR. The fate of trace contaminants such as N-nitrosodimethylamine, pharmaceutically-active compounds, endocrine disruptors, disinfection byproducts and other emerging contaminants and pollutants of concerns that may be present in the injected water is also of concern.

Projects on Contaminants

Develop Low Cost Analytical Method for Measuring N-Nitrosodimethylamine (NDMA) (WRF-01-001)

The current methodology for measurement of NDMA is extremely costly, ranging from $500 to $1,000 per sample. The project objective is to reduce the cost of accurate, repeatable analysis of NDMA in wastewater, surface water, and groundwater samples. (Contract with Long Beach Water Department)

Removal and/or Destruction of N-Nitrosodimethylamine (NDMA) in Wastewater Treatment Processes (WRF-01-002)

NDMA, a known human carcinogen, occurs or is used in the manufacture of rocket fuels, such as hydrazine. NDMA is also formed in wastewater treatment, particularly as a result of chlorination of wastewater that contains dimethyl amine and nitrite. The objective of this project is the investigation and optimization of wastewater treatment processes for removal of NDMA precursors, minimization of NDMA formation, and removal/destruction of NDMA. (Contract with Malcolm Pirnie, Inc.)

Characterizing Salinity Contributions in Sewer Collection and Reclaimed Water Distribution Systems (WRF-01-005)

As utilities continue to develop sources to meet increased demand and as those sources become scarcer, an increasingly important source of water for agricultural and urban use is recycled water. One of the governing factors for the use of reclaimed water is the salinity level. This research will develop and test a protocol for characterizing commercial, industrial, and residential salinity contributions in sewer collection and reclaimed water distribution systems. (Co-Funded Project with AwwaRF)

Characterizing Microbial Water Quality in Non-Potable Reclaimed Water Distribution Systems to Optimize End Uses (WRF-01-006))

One of the most challenging issues facing current and future users of reclaimed water is the potential deterioration of distribution system water quality caused by regrowth of coliforms and other organisms in distribution systems and storage reservoirs. This research will characterize the extent and nature of problems of water quality deterioration as it relates to microbial regrowth in reclaimed distribution systems. (Co-Funded Project with AwwaRF)

The Use of Bioassays and Chemical Measurements to Assess the Removal of Endocrine Disrupting Compounds in Water Reclamation Systems (WRF-01-007)

The purpose of this project is to improve the current understanding of removal of endocrine disrupting chemicals during water reclamation processes. This project will employ bioassays as a component of studying removal and/or destruction of endocrine disrupting compounds by unit operations. (JWRTF Project Managed by WERF)

Evaluation and Testing of Bioassays for Pharmaceutics in Reclaimed Water (WRF-01-008)

Diverse classes of pharmaceutics and their metabolites have been identified in wastewaters and the aquatic environment and the risk to public/ecological health from exposure to these contaminants is unknown. This research will evaluate the use of DNA arrays to rapidly screen changes in gene expression in response to aquatic pharmaceutical exposure. (JWRTF Project Managed by WERF)

Investigation of N-Nitrosodimethylamine (NDMA) Fate and Transport (WRF-02-002)

The objective of this tailored collaboration is to understand the fate and transport of NDMA in soil and groundwater when recycled water is used for irrigation and indirect and direct groundwater recharge. (Tailored Collaboration with West Basin Water District)

Comparative Study of Recycled Water Irrigation and Fairway Turf (WRF-02-007)

This project will compare the performance of turf grass, under scientifically controlled conditions, irrigated with potable water and recycled water under several prescribed regimes. The project will evaluate better possible salt management and document the irrigation savings. The results will also support residential and commercial landscape water conservation programs. (Co-funded Project)

Study of Reclaimed, Surface, and Ground Water (WRF-02-008)

This project will investigate the water quality differences of: 1) surface and ground waters that received no direct influence from treated municipal wastewater and/or reclaimed water discharges, 2) surface water and ground water that are known to be influenced by treated municipal wastewater and/or reclaimed water discharges, and 3) reclaimed water. Sampling will be conducted of microbial and chemical constituents including emerging contaminants such as endocrine disruptors, personal care products, and natural and synthetic hormones. (Tailored

Collaboration with Southwest Florida Water Management District – RFP expected in late summer 2003).

Pathogen Removal and Inactivation in Reclamation Plants (WRF-03-001)

The purpose of this project is to develop a design for a future study for assessing and evaluating pathogen removal and inactivation in reclamation plants. As a first step, the specific objectives for the future study to be designed would be developed. The study design would detail an approach to evaluate concentrations of the pathogens, surrogates, and indicators in reclaimed water and the log-removals achieved. The study design would address the question of what constitutes adequately treated/disinfected recycled water under different types of treatment and disinfection methods and for various end uses. The study designed under this project would provide an understanding of the reduction and inactivation of pathogens, surrogates, and/or potential indicator organisms in reclamation treatment processes.

Public Acceptance Projects

Understanding Public Concerns of Indirect Potable Reuse Projects (WRF-01-004)

In recent years several planned indirect potable reuse projects (e.g., San Diego, Tampa Bay) have not been implemented, largely due to opposition from local interest groups. The purpose of this research project is to develop a thorough understanding of why these projects were unsuccessful and to develop a toolkit that can be used by local utilities/governments to assist them in the successful implementation of indirect potable reuse projects. (Contract with Resource Trends)

Economics and Marketing Projects

Marketing Strategies for Non-Potable Recycled Water (WRF-03-005)

The objectives of this project are to develop marketing strategies for water agencies to use to increase the demand for recycled water for non-potable recycled water uses. Approaches are needed to address ways to better communicate the value of recycled water, the public's relationship with recycled water, and the benefits associated with water reuse. Marketing strategies and tools to address issues such as the perception of need, trust in municipal agencies, nature of the market, cultural values and the status of competing public and political issues.

Economic Analysis of Sustainable Water Use - Benefits and Costs (WRF-03-006)

The purpose of this project is to develop approaches to evaluate the total costs and benefits of water reuse projects. Typically, the economic value of water reuse is underestimated during local or regional planning processes. Although traditional engineering economic analysis excels at estimating the capital and O&M costs of projects, many benefits associated with water reuse projects are usually not calculated or even characterized. When water reuse projects are undervalued compared to other projects and project alternatives, significant opportunities for beneficial reuse are lost. The list of potential benefits associated with water reuse projects can include watershed protection, local economic development, improved public health, and other factors that are not quantified by traditional engineering cost analysis. To fully evaluate the total

costs and benefits of water development projects, local planners should be responsible for providing a complete perspective from which to assess alternative water, wastewater, and water reuse projects. Economic approaches should be employed that focus on the value of water.